

Food &  
Beverage

COST  
CONTROL

6TH  
EDITION

LEA R. DOPSON • DAVID K. HAYES



WILEY



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## DEDICATION

This edition is dedicated to the memory of Jack E. and Anita Miller.





# CONTENTS

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Preface ix  
Acknowledgments xvi  
About WileyPLUS Learning Space xvii

## **Chapter 1: Managing Revenue and Expense 1**

Professional Foodservice Manager 2  
Profit: The Reward for Service 2  
Getting Started 7  
Understanding the Income (Profit and Loss) Statement 12  
Understanding the Budget 15

## **Chapter 2: Creating Sales Forecasts 25**

Importance of Forecasting Sales 26  
Sales Histories 27  
Maintaining Sales Histories 34  
Sales Variances 34  
Predicting Future Sales 36

## **Chapter 3: Purchasing and Receiving 50**

Forecasting Food Sales 51  
Forecasting Beverage Sales 53  
Importance of Standardized Recipes 56  
Purchasing Food 62  
Purchasing Beverages 70

Purchase Orders 76  
Receiving Food and Beverage Products 78

## **Chapter 4: Managing Inventory and Production 96**

Product Storage 97  
Inventory Control 103  
Product Issuing and Restocking 112  
Managing Food Production 121  
Managing Beverage Production 128

## **Chapter 5: Monitoring Food and Beverage Product Costs 139**

Cost of Sales 140  
Computing Cost of Food Sold 140  
Computing Cost of Beverage Sold 143  
Computing Costs with Transfers 144  
Utilizing the Cost of Sales Formula 146  
Reducing the Cost of Sales Percentage 160

## **Chapter 6: Managing Food and Beverage Pricing 181**

Menu Formats 182  
Menu Specials 186  
Factors Affecting Menu Pricing 187  
Assigning Menu Prices 195  
Special Pricing Situations 199

**Chapter 7: Managing the Cost of Labor 215**

- Labor Expense in the Hospitality Industry 216
- Evaluating Labor Productivity 219
- Maintaining a Productive Workforce 219
- Measuring Current Labor Productivity 234
- Managing Payroll Costs 246
- Reducing Labor-Related Costs 255

**Chapter 8: Controlling Other Expenses 265**

- Other Expenses 266
- Controllable and Non-controllable Other Expenses 266
- Fixed, Variable, and Mixed Other Expenses 269
- Monitoring Other Expenses 272
- Managing Other Expenses 275

**Chapter 9: Analyzing Results Using the Income Statement 288**

- Introduction to Financial Analysis 289
- Uniform System of Accounts 290
- Income Statement (USAR Format) 291
- Analysis of Sales/Volume 296
- Analysis of Food Expense 298

- Analysis of Beverage Expense 302
- Analysis of Labor Expense 303
- Analysis of Other Expenses 305
- Analysis of Profits 307

**Chapter 10: Planning for Profit 320**

- Financial Analysis and Profit Planning 321
- Menu Analysis 321
- Cost/Volume/Profit Analysis 334
- The Budget 342
- Developing the Budget 344
- Monitoring the Budget 349

**Chapter 11: Maintaining and Improving the Revenue Control System 367**

- Revenue Security 368
- External Threats to Revenue Security 369
- Internal Threats to Revenue Security 372
- Developing the Revenue Security System 376
- The Complete Revenue Security System 384

- Glossary 391
- Index 399

# PREFACE

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Many years have passed rapidly since the first edition of *Food and Beverage Cost Control* was released. Publication of the first edition fulfilled original lead author Professor Jack Miller's vision for a college-level text that would provide students and practicing managers the essential tools needed to effectively manage costs in food and beverage operations. His steadfast insistence that the original text be easy-to-read, easy-to-understand, and easy-to-remember is no doubt the primary reason for its continued tremendous success.

The authors hope that the study of cost management creates in readers the same interest and excitement for the topic that the authors experience. If so, we will have been successful in our attempt to be true to this text's original vision of creating an outstanding learning tool that prepares students to be successful managers in the exciting hospitality industry.

It has been said that there are three kinds of managers: those who know what has happened in the past, those who know what is happening now, and those who know what will happen in the future. Clearly, the manager who possesses all three traits is best prepared to manage effectively and efficiently. This text will give the reader the tools required to maintain sales and cost histories (the past), develop systems for monitoring current activities (the present), and learn the techniques required to anticipate what is to come (the future).

Previous revisions of the text focused primarily on ensuring that any new cost control-related information included was relevant, up-to-date, and accurate. All of those things remain true in the sixth edition. And indeed, much new and important information has been added to this edition. But recalling Professor Miller's original vision for the book meant we needed to do even more for this revision. The result was a renewed commitment on our part to carefully reexamine every chapter and word while revising this edition.

Today's professional foodservice managers face increasingly complex challenges in their jobs. As in the past, the tools and information they need to properly address these challenges must be easily understood if they are to be readily applied. Students will find this edition significantly easier to read. Instructors will find the information in it easier to present. Practicing managers will find the information in it easier to apply. We are convinced that is exactly what Professor Miller would have wanted for the *Sixth Edition of Food and Beverage Cost Control*, and we are delighted to play our part in sustaining his original vision.

## TO THE STUDENT

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This book will provide you all the cost control–related information and tools you will need to achieve success levels that match your own highest career goals. If you work hard and do your best, you will find you have the ability to master all of the information in this text. When you do, you will have gained an invaluable set of management skills and tools that will enhance your knowledge of the hospitality management industry. These skills and tools will ensure that your hospitality career will consistently be rewarding for you both personally and professionally.

## TO THE INSTRUCTOR

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Today’s hospitality students are the most diverse, multicultural generation yet produced. How are today’s students different from their counterparts of 20 years ago? Studies indicate that instead of focusing on material wealth and professional status, people in their 20s and early 30s are more likely to seek a rewarding and spiritually fulfilling life. Their genders are also different. From 1975 to 1985, the typical hospitality cost control class would have been overwhelmingly male. Today, females will often make up the majority of students in the same type class. Their ethnic backgrounds are different. National demographic projections suggest that about 65 percent of the growth in the US population through the year 2020 will be in ethnic minority groups, particularly Hispanic and Asian populations. Meeting the needs of today’s students required us to carefully reexamine two extremely important characteristics of the text:

- Readability
- Presentation of mathematical concepts

### READABILITY

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Another difference of today’s students from those of previous generations relates to the way students read.

If you were to survey a wide range of hospitality instructors today, you would find a nearly universal answer to the question of whether they believe their current students read as much, or as well, as did students from earlier generations. That uniform answer would be, “No; they do not.” It would be a big mistake, however, to conclude from this that modern students are ill-informed or do not learn as readily as those in prior generations. For today’s students, the use of smart devices and other highly advanced technology tools is a snap, but tweeting and texting are far more popular than textbooks. To ensure that our text continues to reach students who are used to reading concise messages, it was especially important to carefully review it for its readability. There were several main goals of this reading-related review:

- Eliminate redundancy.
- Identify and remove pedantic wording.
- Reexamine the presentation order of information to ensure maximum comprehension.
- Simplify the presentation and explanation of mathematical procedures.

### PRESENTATION OF MATHEMATICAL CONCEPTS

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Experienced managers know that effective cost control in a foodservice operation is built on a variety of systems that depend on the skillful use of mathematics.

In many cases, however, hospitality students may be unsure of their mathematical abilities. Because that is so, any textbook addressing cost control must possess two essential traits:

1. *It must be accurate.* The authors are grateful to the number of editors and reviewers who helped us ensure the mathematical formulas and examples presented in this edition are as error-free as humanly possible. We are grateful, as well, to the number of students and instructors who, in editions 1 through 5, provided feedback that helped ensure all mathematical examples and end-of-chapter questions and answers retained in this edition are clearly presented and accurate.
2. *The mathematical concepts included in the text must be presented clearly.* In a heightened effort to address this key concern, a new feature titled “Here’s How It’s Done” has been added to this edition. This new feature was created in direct response to instructors’ desire that their students have step-by-step explanations and illustrations within every chapter of some of the text’s more challenging math concepts. In this unique feature, students are shown, using real work-setting examples, how the math concepts presented in the chapter are applied and their results evaluated. We are convinced this new feature will be extremely popular with students and their instructors due to its ability to enhance the understanding and comprehension of the mathematical procedures upon which many of a manager’s cost control efforts are based.

## TO MANAGERS

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While *Food and Beverage Cost Control* has always been produced in a textbook format, it has also consistently been an invaluable tool for the practicing manager. The easy, step-by-step approach used to estimate future customer counts (Chapter 2) and apply measures of labor productivity (Chapter 7) are just two examples of its very practical application. The formulas used to calculate edible portion (EP) product yields (Chapter 5) and the information utilized to properly establish prices for menu items (Chapter 6) are two more such examples.

From information needed to convert standardized recipes from the US system of weights and measures to the metric system (Chapter 3), to tips for calculating and analyzing variances on profit and loss statements (Chapter 9), managers responsible for the operation of high-volume foodservice units will find the information that is vitally important and easily applicable to their operations.

Effective foodservice managers are skilled problem solvers. The information found in the exciting new *Sixth Edition* of *Food and Beverage Cost Control* is designed especially to provide professional problem solvers with the tools they need to manage efficient and highly profitable foodservice operations.

## NEW IN THE SIXTH EDITION

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*Sixth Edition* readers will be pleased to find major enhancements both in the text’s content and in its structure.

## NEW CONTENT

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One of the continuing strengths of *Food and Beverage Cost Control* has been the authors’ commitment to continually and carefully monitoring the field of food and beverage cost control to identify changes that must be made to ensure the book

presents the most up-to-date and accurate information available. Significant changes made in this edition include:

- Incorporating new and vital information from the US Food and Drug Administration (FDA) modification of the model “Food Code.”
- Revising all financial statements presented in the text to conform to the recommendations contained in the new eighth edition of the *Uniform System of Accounts for Restaurants (USAR)*.
- Expanding information related to the increasingly popular farm-to-table, green technology, and sustainability movements.
- Addressing the potential impact on labor costs of the Patient Protection and Affordable Care Act (Affordable Care Act).
- Identifying advancements in handheld point-of-sale (POS) and payment systems technology.
- Expanding, by approximately 20 percent, the number of chapter-ending **Test Your Skills** exercises.
- Addition of the new chapter feature: **Here’s How It’s Done**. This unique feature was added to help readers understand key mathematical concepts.
- Addition of the new feature: **Cost Control Around the World**. This feature, present in each chapter, directly addresses the international aspects of cost control management. In our global environment, students will be increasingly called on to demonstrate their understanding of how ethics, culture, and business practices around the world directly affect cost control efforts in foodservice units located outside the United States.

## NEW STRUCTURE

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In a book such as this one, the presentation order of information is extremely important. Development of the *Sixth Edition* allowed the authors to carefully reexamine content presentation in the text and undertake a major improvement related to three key text chapters. In the most previously released *Fifth Edition*, these chapters were:

Chapter 3: Managing the Cost of Food

Chapter 4: Managing the Cost of Beverages

Chapter 5: Managing the Food and Beverage Production Process

While this structure presented key information in a logical manner, chapter length was not consistent, and this caused difficulty for some instructors. In the new *Sixth Edition*, the structure of these three key chapters has been reorganized as follows:

Chapter 3: Purchasing and Receiving

Chapter 4: Managing Inventory and Production

Chapter 5: Monitoring Food and Beverage Product Costs

This structural change allowed the authors to eliminate duplication and to combine key information. Thus, for example, information regarding the use of purchase orders (Chapter 3) and the taking of inventories (Chapter 4) are presented in such a way as to address their use in the management of both food and alcoholic beverage costs.

Similarly, because the procedures and tools that managers can use to monitor and control product costs are analogous for both food and beverages, this information was combined (Chapter 5). The result of this significant structural change



in content presentation is greater consistency in chapter length and elimination of content redundancy with no loss of important information presented.

## RETAINED IN THE SIXTH EDITION

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Much of the popularity of this text is no doubt due to the quality of the elements and features developed for it in prior editions. In this *Sixth Edition*, the authors were pleased to update and retain from the previous edition the following key text elements:

**OVERVIEW:** Each chapter begins with a brief overview of what the chapter contains. The overview focuses on why students will benefit from learning the information presented in the chapter. Thus, this element directly informs readers about what is to be presented in the chapter and why it is important to know it.

**CHAPTER OUTLINE:** One-tier outlines are presented at the beginning of each chapter to inform readers about the specific topics to be addressed. This helpful feature also makes it easier to find specific material contained in the chapter.

**LEARNING OUTCOMES:** Students want to know how the information they learn will be useful to them in their careers. This feature specifically identifies what readers will know and what they will know how to do when they have mastered the material in the chapter.

**GREEN AND GROWING:** More than ever, students and customers alike recognize that environmental consciousness is as important at work as it is at home. As a result, hospitality professionals are increasingly adopting “green” practices and policies that aid the planet as well as their own bottom lines. In this feature, students become familiar with the whys and hows of responsibly growing their businesses by implementing Earth-friendly business practices specific to the hospitality industry.

**CONSIDER THE COST:** One of the most exciting things about learning any new skill is the ability to directly apply what has been learned to situations the learners will actually encounter. To give students an opportunity to do just that, “Consider the Cost” micro-case studies have been developed to present students with common cost control–related challenges they will likely encounter at work. Each case study poses questions that allow readers to apply information learned in the chapter to these “real world” work situations and problems. Instructors will also find these micro-case studies are fun for their students to read and discuss in class.

**FUN ON THE WEB!:** This important feature of the text adds to student learning by integrating the use of the Internet into the study of cost control. This feature provides Web-based resources that can help managers more effectively do their jobs.

**TECHNOLOGY TOOLS:** These updated listings of real-life application examples demonstrate to students that they can utilize advanced smart device applications, sophisticated wired and wireless communication tools, and much more to help manage costs and improve operating efficiencies. While not all managers will use all of the tools suggested, it is important for students to understand the rapidly expanding technology-based resources available to them today.

**APPLY WHAT YOU HAVE LEARNED:** This exciting pedagogical feature allows students to draw on their own problem-solving skills, ideas, and opinions using the concepts explored within each chapter. Challenging and realistic, yet purposely brief, these industry-specific scenarios provide excellent starting points for class discussions or, if the instructor prefers, outstanding written homework assignments.

**KEY TERMS AND CONCEPTS:** Students often need help in identifying key terms and concepts that should be mastered after reading a section of a book. These are listed at the conclusion of each chapter and in the order in which they appeared in the chapter to make finding them easier.

**TEST YOUR SKILLS:** This popular feature has been retained and expanded. As was true in previous editions, predesigned Microsoft Excel spreadsheets are employed in most of the questions to allow students to practice problem-solving. Doing so enhances the instructor's ability to evaluate student mastery of cost control concepts and student skill in understanding and using spreadsheets. The Excel spreadsheets are downloadable from the student companion website at [www.wiley.com/college/dopson](http://www.wiley.com/college/dopson).

## MANAGERIAL TOOLS

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It is the authors' hope that all readers find the book as helpful to use as we found it exciting to develop. To that end, appendices are provided that we believe will be of great value.

*Appendix A: Frequently Used Formulas for Managing Costs* is included on the student companion website ([www.wiley.com/college/dopson](http://www.wiley.com/college/dopson)) as an easy reference guide. This feature allows readers to look up mathematical formulas for any of the computations presented in the text.

*Appendix B: Management Control Forms* provides simplified cost control-related forms. This popular appendix has been retained from previous editions of this text. Included on the student companion website at [www.wiley.com/college/dopson](http://www.wiley.com/college/dopson), these forms can be used as guideposts in the development of property-specific forms. They may be implemented as-is or modified as the manager sees fit.

A *Glossary* of key terms used in the chapters and in the industry is included in the back of the text to help the reader with the operational vocabulary necessary to understand the language of hospitality cost control management. The glossary is also included on the book companion site at [www.wiley.com/college/dopson](http://www.wiley.com/college/dopson).

## COMPANION WEBSITES

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To help instructors effectively manage their time and to enhance student learning opportunities, several significant educational tools have been developed specifically for this text:

Instructor's Materials

Student Materials

## INSTRUCTOR'S MATERIALS

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A password-protected online *Instructor's Manual* ([www.wiley.com/college/dopson](http://www.wiley.com/college/dopson)) has been meticulously developed and classroom tested for this text. The manual includes the following, each of which is presented in a stand-alone format:

- *Lecture Outlines* for each chapter.
- *Lecture PowerPoints* for each chapter: These easy-to-read teaching aids are excellent tools for instructors presenting their lectures in class or online. These are available to students as well, as a chapter review aid.



- Suggested answers to each chapter’s *Consider the Cost* micro-case studies.
- Suggested answers for *Apply What You Have Learned* questions for each chapter.
- Suggested answers to chapter-ending *Test Your Skills* problems. Instructors will be able to access answers and formulas to the “Test Your Skills” spreadsheet exercises at the end of each chapter.
- A *Test Bank* including 20 multiple choice (four-alternative) and 10 True and False (two-alternative) exam questions developed for each chapter. The authors recognize the importance that instructors place on well-designed exam questions. For this edition, a major revision of the test bank was undertaken. The result was a significant improvement in the quality, validity, and reliability of the exam questions and each question’s correct answer.

The Test Bank for this text has been specifically formatted for *Respondus*, an easy-to-use software for creating and managing exams that can be printed or published directly to Blackboard, WebCT, Desire2Learn, eCollege, ANGEL, and other eLearning systems. Instructors who adopt *Food and Beverage Cost Control, Sixth Edition*, can download the Test Bank for free.

Additional Wiley resources can be uploaded, at no charge, into the learning management system (LMS) used by course instructors. To view and access these resources and the *Test Bank*, visit [www.wiley.com/college/dopson](http://www.wiley.com/college/dopson), select the correct title, and click on the “Instructor Companion Website” link, then click on “Respondus Test Bank.” Instructions on how to use Respondus and upload additional materials into the LMS appear in this section of the companion site.

## STUDENT MATERIALS

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A newly revised *Study Guide* (978-1-119-06157-1) provides several additional resources to help students review the material and exercises to test their knowledge of key concepts and topics. Study guides are popular with students and instructors alike because they provide yet another tool for those professionals seeking to maximize their learning of this text’s important material.

A robust companion website contains additional support materials for students and is available at [www.wiley.com/college/dopson](http://www.wiley.com/college/dopson).

- Lecture PowerPoints
- Test Your Skills
- Frequently Used Formulas for Managing Costs
- Management Control Forms

## WILEYPLUS LEARNING SPACE

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- Gain immediate insights to help inform teaching

Defining a clear path to action, the visual reports in *WileyPLUS Learning Space* help both you and your students gauge problem areas and act on what's most important.

## ACKNOWLEDGMENTS

The first five editions of this text have been very popular. As a result, this book has now become one of the market leaders among hospitality cost control texts. This success has stemmed in large part from the testing of its concepts and materials in classes at the University of North Texas, Purdue University, Texas Tech University, the University of Houston, California State Polytechnic University at Pomona, and Lansing Community College, as well as from those original St. Louis Community College students who received their instruction under Jack Miller.

We are also extremely grateful to the various professionals in institutional, commercial, and hotel foodservice operations who contributed to the original concept and idea for the book and who so freely gave of their time and advice in this endeavor. For comment, collaboration, and constructive criticism on the manuscript, we thank the reviewers who have generously given their feedback through six editions of the book. In addition, we also want to acknowledge the hundreds of instructors who provided key information in a survey of the Cost Control course. This greatly impacted how we revised this *Sixth Edition*.

This edition could not have been produced without the assistance of a great many colleagues, friends, and family who supported our efforts. As always, a special thank you goes to those who have been so supportive of us throughout our careers: Lorelei, Terry, and Laurie, as well as Peggy, Scott, Trishauna, Joshua, Pauline, M.D., and J.J.C. We appreciate all of you!

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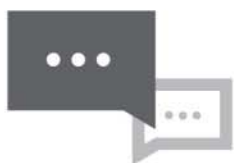
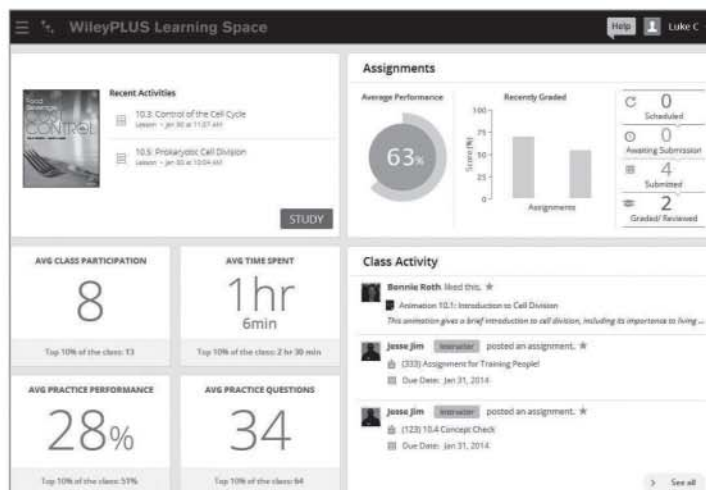
We know the value of a quality publisher in the development of an outstanding text revision. We are continually impressed with the high standards exhibited by JoAnna Turteltaub, Wiley vice president and publisher, and the patient support provided by her staff, including Melissa Edwards, our outstanding editor. Their efforts helped ensure that this text met the high standards Wiley sets for its own publications and, by doing so, helped us contribute our very best efforts as well. As always, we are deeply grateful to all of the staff at Wiley for their intellect, patience, and faithfulness in producing this sixth, and best ever, edition of *Food and Beverage Cost Control*.

Lea Dopson, Ed.D.  
Pomona, CA

David K. Hayes, Ph.D.  
Okemos, MI

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- Gain immediate insights to help inform teaching

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- Participate in class discussions
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# CHAPTER 1

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## Managing Revenue and Expense

### OVERVIEW

This chapter presents the relationship among a foodservice business's revenue, expense, and profit. As a professional foodservice manager, you must understand the relationship that exists between controlling these three areas and the resulting success of your operation. In addition, the chapter presents the mathematical foundation you must know to report your operating results and express them as a percentage of your revenue or budget. This method is standard within the hospitality industry.

---

### *Chapter Outline*

- Professional Foodservice Manager
  - Profit: The Reward for Service
  - Getting Started
  - Understanding the Income (Profit and Loss) Statement
  - Understanding the Budget
  - Technology Tools
  - Apply What You Have Learned
  - Key Terms and Concepts
  - Test Your Skills
- 

### LEARNING OUTCOMES

At the conclusion of this chapter, you will be able to:

- Apply the formula used to determine business profits.
- Express business expenses and profits as a percentage of revenue.
- Compare actual operating results with budgeted operating results.

# PROFESSIONAL FOODSERVICE MANAGER

To be a successful foodservice manager, you must be a talented individual. Consider, for a moment, your role in the operation of a profitable foodservice facility. As a foodservice manager, you are both a manufacturer and a retailer. A professional foodservice manager is unique because all of the functions of a product’s sale, from menu development to guest service, are in the hands of the same individual. As a manager, you are in charge of securing raw materials, producing a product, and selling it—all under the same roof. Few other managers are required to have the breadth of skills that effective foodservice operators must have. Because foodservice operators are in the service sector of business, many aspects of management are more challenging for them than for their manufacturing or retailing management counterparts.

A foodservice manager is one of the few types of managers who actually have contact with the ultimate consumer. This is not true for the managers of a cell phone factory or automobile production line. These individuals produce a product, but they do not sell it to the person who will actually use it. In a like manner, furniture and clothing store managers will sell products to those who use them, but they have had no role in actually producing the products they sell. The face-to-face guest contact in the hospitality industry requires that you assume the responsibility of standing behind your own work and the work of your staff, in a one-on-one situation with the ultimate consumer, or end user, of your products and services.

The management task checklist in Figure 1.1 shows some of the areas in which foodservice, manufacturing, and retailing managers differ in their responsibilities.

In addition to your role as a food factory supervisor, you must serve as a cost control manager, because if you fail to perform this vital role, your business will perform poorly or may even cease to exist. Foodservice management provides the opportunity for creativity in a variety of settings. The control of revenue and expenses is just one more area in which an effective foodservice operator can excel. In fact, in most areas of foodservice, excellence in operation is measured in terms of a manager’s ability to produce and deliver quality products in a way that ensures an appropriate operating profit for the owners of the business.

**FIGURE 1.1** Management Task Checklist

Task	Foodservice Manager	Manufacturing Manager	Retail Manager
1. Secure raw materials	Yes	Yes	No
2. Manufacture product	Yes	Yes	No
3. Distribute to end user	Yes	No	Yes
4. Market to end user	Yes	No	Yes
5. Reconcile problems with end user	Yes	No	Yes

# PROFIT: THE REWARD FOR SERVICE

In the foodservice industry a manager’s primary responsibility is to deliver quality products and services to guests at a price mutually agreeable to both parties. In addition, the quality must be such that buyers of the product or service feel that excellent value was received for the money they spent. When they do, a business will prosper. If, however, management focuses more on reducing costs than providing value to guests, problems will inevitably occur.

It is important to remember that serving guests causes businesses to incur costs. It is wrong to think that “low” costs are good and “high” costs are bad. A restaurant



with \$5 million in sales per year will have higher costs than the same-size restaurant achieving only \$500,000 in sales per year. The reason is quite clear. The amount of products, labor, and equipment needed to sell \$5 million worth of food and beverages is greater than that required to sell only \$500,000.

Remember, if there are fewer guests, there are likely to be lower costs, but less sales and profit as well! Because that is true, a business will suffer if management attempts to reduce costs with no regard for the impact on the balance between managing costs and maintaining high levels of guest satisfaction. In addition, efforts to reduce costs that result in unsafe physical conditions for guests or employees are never wise. Although some short-term savings may result, the expense of a lawsuit resulting from a guest or employee injury can be very high. Managers who, for example, neglect to spend the money to shovel and salt a snowy restaurant entrance area may find that they spend thousands of dollars more defending themselves in a lawsuit brought by an individual who slipped and fell on the ice than they would have spent clearing the snowy walkway.

For an effective manager, the question to be considered is not whether costs are high or low. The question is whether costs are *too high* or *too low*, given the value a business seeks to create for its guests. Managers can eliminate nearly all costs by closing the operation's doors. Obviously, however, when you close the doors to nearly all expenses, you also close the doors to sales and, more importantly, to profits. Expenses, then, must be incurred, but managed in a way that allows the operation to achieve its desired profit levels.

It is especially important for you to understand profits. Some people assume that if a business purchases an item for \$1.00 and sells it for \$3.00, the profit generated is \$2.00. In fact, this is not true. As a business operator, you must realize that the difference between what you have paid for the goods you sell and the price at which you sell them does not represent your profit. Instead, all expenses, including advertising, the building that houses your operation, management salaries, and the labor required to generate the sale, just to name but a few, are among the many expenses that must be subtracted from your income before you can determine your profits accurately.

Every foodservice operator is faced with, and must understand well, the profit formula:

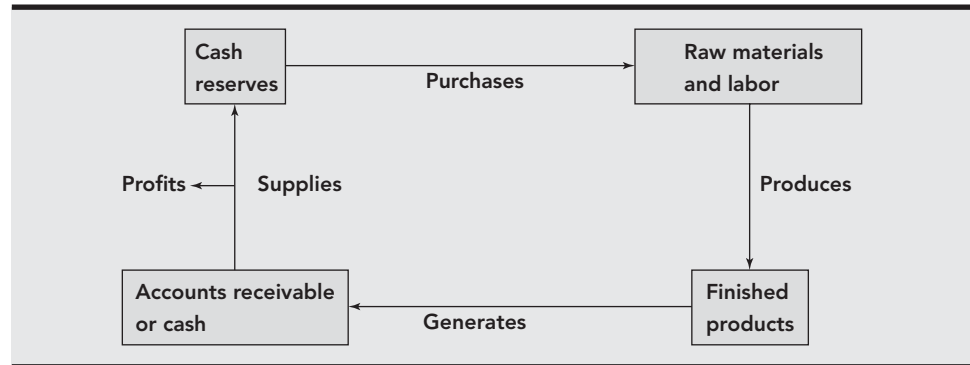
$$\text{Revenue} - \text{Expenses} = \text{Profit}$$

Thus, when you manage your facility, you will receive **revenue**—the money you take in—and you will incur **expenses**—the cost of everything required to operate the business and generate your revenue. **Profit** is represented by the amount that remains after all expenses have been paid. Because doing so is common in the industry, in this book the authors will use the following terms interchangeably: revenues and sales; expenses and costs.

The profit formula holds true even for managers in the nonprofit sectors of foodservice such as schools, hospitals, military bases, and businesses providing meals to their workers. For example, consider the situation of Hector Bentevina. Hector is the foodservice manager at the headquarters of a large corporation that employs many office workers. Hector supplies the foodservice to a large group of these workers, each of whom is employed by the corporation that owns the facility Hector manages. In this situation, Hector's employer may not have profits as its primary motive. That is so because, in most **business dining** situations, food is provided as a service to the company's employees either as a no-cost (to the employee) benefit or at a greatly reduced price. In all cases, however, some provision for profit must be made by nonprofit operations such as the one operated by Hector, although it is not likely their primary motive.

Figure 1.2 shows the flow of business for the typical foodservice operation. Note that profit dollars must be taken out at some point in the process, or management will be in a position of simply trading equal amounts of cash for cash.

FIGURE 1.2 Foodservice Business Flowchart



In your own operation, if you find that revenue is consistently less than your expenses, with no reserve for the future, you will also find that there is no money for new equipment; needed facility maintenance may not be performed and employee raises (including your own) may be few and far between. In addition, your facility will eventually become outdated due to a lack of funds for remodeling and upgrading. The fact is, all foodservice operations must generate revenue in excess of expenses if they are to thrive.

An appropriate level of business profits is always the result of solid planning, sound management, and careful decision making. The purpose of this text is to give you the information and tools you need to make good decisions about managing your operation's revenue and expenses.

It is important to understand that profit should not be viewed as what is left over after all bills are paid. In fact, careful planning is necessary to earn a profit. In most cases, investors will not invest in businesses that do not generate enough profit to make their investment worthwhile. The restaurant business can be very profitable; however, there is no guarantee that an individual restaurant will make a profit. Some restaurants do, and others do not. Because that is true, a more appropriate formula that recognizes and rewards the business owner for the risk associated with ownership is:

$$\text{Revenue} - \text{Desired profit} = \text{Ideal expense}$$

In this case, **ideal expense** is defined as management's view of the correct or appropriate amount of expense necessary to generate a given level of sales. **Desired profit** is defined as the profit that the owner wants to achieve at that level of revenue. This formula clearly places profit as a reward for providing service, not as a leftover. When foodservice managers deliver quality and value to their guests, anticipated revenue levels and desired profits can be achieved. Desired profit and ideal expense levels are not, however, easily achieved. It takes a talented foodservice operator to consistently make good decisions that will maximize revenue while holding expenses to the ideal or appropriate amount. This book will teach you how to make those good decisions.

## REVENUE

Revenue dollars are the result of units sold to customers. Units may consist of individual menu items, lunches, dinners, drinks, or any other item produced by your operation. Revenue varies with both the number of guests coming to your business and the amount of money spent by each guest. You can increase revenue by increasing the number of guests you serve, by increasing the amount each guest you serve spends, or by a combination of both approaches. Adding seating or drive-through windows, extending operating hours, and building additional foodservice units are all examples of management's efforts to increase the number of guests served. Suggestive selling by service staff, creative menu pricing techniques, and discounts

for very large purchases are examples of efforts to increase the amount of money each guest spends.

Management's primary task is to take the steps necessary to attract guests to the foodservice operation. This is true because the profit formula begins with sales made to guests. Experienced foodservice operators know that adding guests and selling more to each guest are extremely effective ways of increasing overall profitability, but *only* if effective cost management systems are also in place.

The focus of this text is on managing and controlling costs, not on generating additional revenue. While the two topics are related, they are very different. Marketing efforts, restaurant design, site selection, employee training, and proper food preparation methods are good examples of factors that directly impact an operation's ability to increase sales levels. Effective expense control cannot solve the problems caused by inadequate revenue resulting from inferior marketing, food quality or service levels. Effective cost control when coupled with management's aggressive attitude toward meeting and exceeding guests' expectations, however, can result in outstanding revenue and profit performance.

### *Green and Growing!*

Good food and service will attract foodservice customers. So will other important factors customers care about, including location, unusual décor, and, increasingly, how "green" an operation is perceived to be. *Green* is the term used to describe those foodservice operations that incorporate environmentally conscious activities into the design, construction, and operation of their businesses. These activities can be related to packaging and shipping materials reduction, energy conservation, or **sustainable development**, a term used to describe a variety of Earth-friendly practices and policies as "development that meets the needs of the present population without compromising the ability of future generations to meet their own needs."

The positive benefits that accrue when businesses incorporate green activities are significant, and are increasing. Managers of green operations help protect the environment. For example, did you know that every ton of 100 percent post-consumer waste recycled paper saves 12 trees, 1,976 pounds of greenhouse gases, and 390 gallons of oil? Green operating is also gaining in popularity because more and more guests seek out and frequent green restaurants simply because they are committed to preserving the environment.

The Green Restaurant Association<sup>SM</sup> (GRA) is a nonprofit, national environmental organization founded to help restaurants and their customers become more "green" (environmentally sustainable) in ways that are convenient and cost-effective. The GRA's agenda includes issues related to:

- Research
- Environmental consulting
- Education
- Public relations and marketing
- Community organizing and consumer activism

To learn more about this increasingly high-profile group, visit the GRA's website, [dinegreen.com](http://dinegreen.com). To learn more about how your foodservice operation can increase profits by implementing sustainable activities, watch for the "Green and Growing" feature in each upcoming chapter of this book.

UN Brundtland Commission, "Report of the World Commission on Environment and Development: Our Common Future," 42<sup>nd</sup> session, *Development and International Cooperation: Environment*, August 4, 1987, chapter 2 opener.

## EXPENSES

Expenses are used to generate revenue. But managers must carefully control their expenses. There are four major foodservice expense categories that you must learn to control:

1. Food costs
2. Beverage costs
3. Labor costs
4. Other expenses

### FOOD COSTS

**Food costs** are the costs associated with actually producing the menu items sold to guests. They include the expense of meats, dairy, fruits, vegetables, and other categories of food items produced by the foodservice operation. When calculating their food costs, some managers include the cost of minor paper and plastic items, such as the paper wrappers used to wrap sandwiches. In most cases, food costs will make up the largest or second-largest expense category you must learn to manage.

### BEVERAGE COSTS

**Beverage costs** are those expenses related to the sale of alcoholic beverages. It is common practice in the hospitality industry to consider beverage costs of a nonalcoholic nature as an expense in the food cost category, not the beverage category. Thus, milk, tea, coffee, waters, carbonated beverages, and other nonalcoholic beverage items are *not* generally considered a beverage cost.

Alcoholic beverages accounted for in the beverage cost category include beer, wine, and liquor. This cost category may also include the expenses of other ingredients such as cherries, lemons, olives, limes, mixers like carbonated beverages, and the juices needed to produce alcoholic drinks. It may also include miscellaneous items such as stir sticks, napkins, and coasters.

### LABOR COSTS

**Labor costs** include the cost of all nonmanagement as well as management employees needed to run a business. This expense category also includes the amount of any taxes you are required to pay when you have employees on your payroll, as well as the cost of benefits they may receive. In many foodservice operations, labor costs are an operator's highest cost or they are second only to food and beverage costs in the total number of dollars spent.

### Consider the Cost

"I'm feeling pretty good about our cost management efforts," said Rachel. "Our labor cost is higher than our food cost."

"I'm pleased with our efforts, too," said Julie. "Our food cost is higher than our labor cost."

"That's great, Julie," said Joseph. "I just calculated our monthly costs, and our food and labor expenses are just about equal. Sounds like we are all doing well!"

Rachel, Julie, and Joseph had all attended hospitality school together. Each had taken a job in the same large city, so they often got together over coffee to talk about their businesses and their jobs. One manages Chez Paul's, a fine-dining French-style restaurant known for impeccable service. Another manages Fuby's, a family-style cafeteria known for its tasty, home-style cooking. The third manages Gardinos, a national restaurant chain that offers mid-priced Italian cuisine in a beautiful Tuscan-style decor.

1. Which foodservice operation do you think Rachel manages? Why?
2. Which foodservice operation do you think Julie manages? Why?
3. Which foodservice operation do you think Joseph manages? Why?

### FUN ON THE WEB!

The foodservice industry is large and continues to grow. The trade association representing many foodservice businesses is the National Restaurant Association (NRA). Enter "National Restaurant Association" in your favorite browser to visit the website.

When you arrive at the site, click on "News & Research" to see the association's current revenue projections for the restaurant industry, which now has annual sales of over \$650 billion.

## OTHER EXPENSES

**Other expenses** comprise all of the expenses that are not included as a food, beverage, or labor costs. Examples include business insurance, utilities, rent, and such items as linens, china, glassware, kitchen knives, and pots and pans.

Although this expense category is sometimes incorrectly referred to by some as “minor expenses,” your ability to successfully control this expense area is critical to the overall profitability of your foodservice operation.

## GETTING STARTED

Good managers must learn to understand, control, and manage their expenses. Consider the case of Tabreshia Larson, the food and beverage director of the 200-room Renaud Hotel, located in a college town and built near an interstate highway. Tabreshia has just received her end-of-the-year operating reports for the current year. She is interested in comparing these results to those of the prior year. The numbers she received are shown in Figure 1.3.

Tabreshia is concerned about her operation, but she is not sure if she should be. Revenue is higher than last year, so she feels her guests must like the products and services they receive. In fact, repeat business from corporate meetings and special-events meals is increasing. Profits are greater than last year also, but Tabreshia has the uneasy feeling that things are not going as well as they could. The kitchen appears to run smoothly. The staff, however, often runs out of needed items, and there sometimes seems to be a large amount of leftover food that must be thrown away. Also, at times, there seems to be too many employees on the property and not enough work for them to do; at other times, there seems to be too few employees and her guests have to wait too long to get served. Tabreshia also feels that employee theft may be occurring, but she certainly doesn't have the time to watch every storage area within her operation. She would really like to get a handle on the problems (if there are any)—but how and where should she start?

The answer for Tabreshia, and for you, if you want to develop a serious expense control system, is very simple. You start with basic mathematics skills that you must have to properly analyze your revenue and expenses. The mathematics required, and used in this text, are not very hard. They consist of addition, subtraction, multiplication, and division. These tools will be sufficient to build a cost control system that will help you professionally manage the expenses you incur.

To see why managers must be able to analyze their businesses, consider what it would mean to you if a fellow foodservice manager told you that yesterday he spent \$500 on food. Obviously, it means very little unless you know more about his operation. Should he have spent \$500 yesterday? Was that too much? Too little? Was it a “good” day or a “bad” day? These questions raise a challenging problem. How can you properly compare your expenses today with those of yesterday, or your own foodservice unit with another, so that you can see how well you are doing?

The answer to that question becomes even more complex because we know that the value of dollars changes over time. For example, a restaurant that generated revenue of \$1,000 per day in 1954 would be very different from that same restaurant with daily revenue of \$1,000 today because the value of the dollar today

**FIGURE 1.3** Renaud Hotel Operating Results

	This Year	Last Year
Revenue	\$1,106,040	\$850,100
Expenses	1,017,557	773,591
Profit	\$ 88,483	\$ 76,509

is quite different from what it was in 1954. Generally, inflation causes the purchasing power of a dollar today to be less than that of a dollar from a previous time period. Inflation can make it challenging to answer the simple question, “Am I doing as well today as I was doing five years ago?”

Alternatively, consider the problem of an individual responsible for the management of several foodservice units. She owns two food carts that sell tacos on either side of a large city. One food cart uses \$500 worth of food products each day; the other uses \$600 worth of food products each day. Are both units being efficiently operated? Does the second food cart use an additional \$100 worth of food each day because it serves more customers or because it is less efficient in utilizing its food?

The answer to all of the preceding questions, and many more, can be determined if we use percentages to relate the expenses of an operation to the revenue it generates. Percentage calculations are important for at least two major reasons. First and foremost, percentages are the most common tools used to evaluate costs in the foodservice industry. Therefore, knowledge of what a percent is and how it is calculated is vital. Second, as a manager in the foodservice industry, you will be evaluated primarily on your ability to compute, analyze, and control these percentages.

Although it is true that many basic management tools such as Microsoft Excel, OpenOffice’s Calc, Lotus 1-2-3, and other software programs can compute percentages for you, it is important that you understand what the percentages mean and how they should be interpreted. Percent calculations are used extensively in this text and are a cornerstone of any effective cost control system.

## REVIEWING PERCENTAGES

Understanding percentages and how they are mathematically computed is essential for all managers. The following review may be helpful for some readers. If you already thoroughly understand the percent concept, you may skip this section and the “Computing Percentages” section and proceed directly to the “Using Percentages” section.

**Percent (%)** means “out of each hundred.” Thus, 10 percent would mean 10 out of each 100. If we asked how many guests would buy blueberry pie on a given day, and the answer is 10 percent, then 10 people out of each 100 we serve will select blueberry pie. If 52 percent of your employees are female, then 52 out of each 100 employees are female. If 15 percent of your employees will receive a raise this month, then 15 out of each 100 employees will get their raise. There are three basic ways to express percent:

1. Common form
2. Fractional form
3. Decimal form

Figure 1.4 shows these three forms, or ways, of writing a percentage.

**FIGURE 1.4** Forms of Expressing Percent

Form	Percent		
	1%	10%	100%
Common	1%	10%	100%
Fraction	1/100	10/100	100/100
Decimal	0.01	0.10	1.00



## COMMON FORM

In its common form, the % sign is used to express the percentage. If we say 10 percent (or 10%), then we mean “10 out of each 100,” and no further explanation is necessary. If we say 50 percent (or 50%), then we mean “50 out of each 100,” and no further explanation is necessary. In the common form, the percent is equivalent to the same amount expressed in either the fraction or the decimal form.

## FRACTION FORM

In fraction form, the percentage is expressed as the part, or a portion of 100. Thus, 10 percent is written as 10 “over” 100 (10/100). Similarly, 50 percent is written as 50 “over” 100 (50/100). When using the fraction form, the “part” is the numerator and is always placed “on top,” while the “whole” is the denominator and it is always placed “on the bottom.”

Despite the fact that it looks different, when writing 10 percent, or any other percent, use of the fraction form is simply another way of expressing the relationship between, in this example, the part (10) and the whole (100).

## DECIMAL FORM

A decimal is a number developed directly from the counting system we use. It is based on the fact that we count to 10, then start over again. In other words, each of our major units—10s, 100s, 1,000s, and so on—is based on the use of 10s, and each number can easily be divided by 10.

Unlike the common or fraction form, the decimal form of expressing a percentage uses the decimal point (.) to present the percent relationship. Thus, 10 percent is expressed as 0.10 in decimal form; 50 percent is expressed as 0.50. When utilizing the decimal form, the numbers to the right of the decimal point express the percentage.

Professionals throughout the foodservice industry use each of these three methods of expressing percentages. To be successful, you must develop a clear understanding of how a percentage is computed and when it is properly used. Once you know that, you can express the percentage in any form that is required or that is useful to you.

## COMPUTING PERCENTAGES

To determine what percent one number is of another number, you divide the number that is the part by the number that is the whole. Usually, but not always, this means dividing the smaller number by the larger number. For example, assume that 840 guests were served during a banquet at your hotel and that 420 of them asked for coffee with their meal. To find what percent of your guests ordered coffee, divide the part of the group who ordered coffee (420) by the size of the whole group (840).

The process looks like this:

$$\frac{\text{Part}}{\text{Whole}} = \text{Percent, or } \frac{420}{840} = 0.50, \text{ or } 50\%$$

Recall that a percentage can be expressed in three ways. Thus, 50% (common form), 50/100 (fraction form), and 0.50 (decimal form) all represent the proportion of people at the banquet who ordered coffee.

Some new foodservice managers have difficulty computing percent figures. That’s because sometimes it is easy to forget which number goes “on the top” and which number goes “on the bottom.” In general, if you attempt to compute a percentage and get a whole number (a number larger than 1), either a mistake has been made or revenue is extremely low and/or costs are extremely high!