

# Foodservice Management Principles and Practices

THIRTEENTH EDITION

June Payne-Palacio • Monica Theis



ALWAYS LEARNING

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# Foodservice Management Principles and Practices

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GLOBAL EDITION THIRTEENTH EDITION

# Foodservice Management Principles and Practices

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The first edition of this text appeared in print in 1938, 76 years ago. *Foodservice Management: Principles and Practices* (first titled *Foodservice in Institutions*). In each edition, the authors have been committed to presenting the basic principles of foodservice management, which can be applied to *all* types of foodservice organizations. This 13th edition continues to give comprehensive coverage of *all* aspects of foodservice management in one single volume.

The early editions reflected the distinct difference that existed between commercial or profit-seeking organizations and noncommercial or institutional (on-site) not-for-profit foodservice operations. Special emphasis was given to on-site foodservices: schools and colleges, hospitals and health care facilities, and in-plant or industrial foodservices.

In recent years, a philosophical change has taken place—first gradually, then dramatically—in the management of many not-for-profit, on-site foodservices. With rising health care costs and the pressures of health care reform, for example, hospitals have become more financially competitive in order to succeed and remain in business. Not-for-profit cost centers, such as patient meal services, exist alongside retail profit centers, such as cafeterias, vending, and coffee bars, in hospitals. Schools, too, are under pressure to implement self-sustaining Child Nutrition Programs by offering revenue-generating options such as à la carte lines and catering services. Today, most foodservices strive for some margin of profit and make less of a distinction between the two types of foodservice. In response to these changes, the title of this book was changed with the seventh edition to *Introduction to Foodservice*. In the 12th edition, the title was changed once again to better reflect the college level at which this material is taught. *Foodservice Management: Principles and Practices* still concentrates on the basic principles but also reflects the impact of current social, economic, technological, and political factors on foodservice operations. Examples and illustrations reflect both noncommercial and commercial applications.

## **NEW TO THE 13TH EDITION**

- Up-to-date case studies at the end of each chapter cover every facet of the foodservice industry, such as healthcare, military, corrections, retail, schools, etc., and allow students to apply the principles presented in the chapter in a practical way.
- New section on disaster planning in Chapter 3.
- Section on microbiology in Chapter 3 adds foundational information for food safety program planning.
- All information has been updated to comply with the 2013 Food Code.
- Addition of the latest in accelerated cooking technologies including induction and accelerated cooking ovens.
- Explanation of the LEED rating system and latest in lighting technology including LED, OLED, and LED panel lighting.
- Impact of new legislation such as the Affordable Care Act, Healthy Hungry-Free Kids Act, and new minimum wage laws on the foodservice industry and other legal issues that impact foodservice management, such as due process and just cause for dismissals and conflict dispute resolution and right to work.
- Addition of information relative to the use of social media for marketing purposes.
- Addition of regulations and issues that need to be considered when buying locally addresses the widespread and growing movement to buy locally.
- Explanation of the impact of legal issues such as due process, just cause for dismissals, conflict dispute resolution, and right to work.
- Coverage of the latest employee motivation enhancement, such as employee worker engagement and leadership rounding.
- Factors to consider when buying warewashing equipment.

## **FEATURES**

An indicator of a good education is the ability of the learner to adapt knowledge to various situations in professional practice. It is not always in the best interest of an organization to "go by the book." A thoughtful learner considers how material would be applied and how the application would change under various situations. In other words, the student needs to learn how to transfer knowledge.

We have integrated a number of teaching concepts aimed at helping the reader make the transition from textbook to practice. Each chapter includes a number of practice-based situations and scenarios to illustrate the variations among individual foodservices. In addition, each chapter ends with "Application of Chapter Concepts," which describes how the contents of the chapter are applied in a foodservice operation from varying segments of the industry. Following the narrative, readers will find several "Critical-Thinking Questions" written specifically to allow them to reflect on the material presented in the chapter from an applied perspective.

In addition, the text includes the following:

- The discussion of the systems model has been expanded in Chapter 2 and is then reintroduced in each chapter.
- Key concepts are listed at the beginning of each chapter and then highlighted throughout that chapter.
- Because the culinary side of on-site foodservice becomes increasingly important each year, more focus is placed on food.
- Each chapter concludes with a summary.
- Review questions at the end of each chapter pinpoint the important concepts and serve as a study review and test for the reader, ensuring that the more important information is learned. Critical-thinking questions challenge the student to think conceptually in applying the concepts to real-world situations.
- The appendices, "Principles of Basic Cooking" and "Foodservice Equipment," provide additional, detailed information.
- A running glossary set in the margins defines and clearly explains some of the key terms unique to this field of study. These terms are shown in boldface type.

We expect users to also supplement their reading with current journals, trade magazines, and research reports, as well as attend seminars, exhibits, conventions, and trade shows to keep themselves up-to-date.

Throughout this edition, the material has been updated and revised to reflect current trends and practices. For example, the latest in processing technology is discussed in the chapters on food safety, purchasing, and foodservice equipment. The importance of sustainability is emphasized throughout the book. Many new photographs and illustrations are included. In addition, some chapter titles now incorporate new terminology to better reflect the subject matter.

## **ORGANIZATION OF THIS EDITION**

Although it is unlikely that two instructors would organize the subject matter of this course in exactly the same way, we believe that the information in this text is presented in a logical sequence. First, the foundation is laid, then the fundamentals are presented. Next, the technical operations and facilities are discussed so that students will understand what is to be managed. Finally the presentation of management techniques follows.

*Foodservice Management: Principles and Practices* is divided into five major parts. Part 1, "The Foundations," provides an overview. Chapter 1 gives a chronological review of the history of food and foodservice organizations ending with the status of the industry today, factors affecting its growth, current trends, and the challenges facing the industry. Chapter 2 includes an expanded discussion of the systems approach to management and describes types of current foodservice operations. Part 2, "The Fundamentals," includes chapters on food safety; cleaning, sanitation, and environmental safety; and menu planning. In Part 3, "The Operational Functions," each chapter discusses a function-by-function description of a foodservice operation. These functions include purchasing; receiving, storage, and inventory; production; and service. Each chapter includes factors that influence the management of that operational function.

Part 4, "The Facilities," is a three-chapter unit that focuses on the design of the operational facilities, equipment, and environmental issues relevant to foodservice operations. Part 5, "The Management Functions," provides the reader with the basic knowledge to manage all of the operational functions of a foodservice. Chapter 13 covers the design and management of organizations. It is followed by comprehensive chapters on leadership and human resource management. The unit concludes with chapters on performance improvement, financial management, and marketing.

## **COURSES FOR WHICH THIS TEXT IS SUITABLE**

Although colleges may use this material in a sequence different from that presented here, the subject matter itself is appropriate for courses that include the following (with these or similar titles):

- Introduction to Foodservice Management
- Quantity Food Production
- Purchasing for Foodservices (both food and equipment)
- Organization and Management of Foodservices
- Facility Design and Equipment Arrangement
- Foodservice Accounting/Financial Management
- Food Protection and Safety
- Menu Planning for Foodservices
- Foodservice Marketing and Merchandising

We hope that this revised edition of a classic text continues to meet the needs, as it has in the past, of the current generation of students who are preparing to become administrative dietetics professionals or foodservice managers. We hope, too, that faculty members will find *Foodservice Management: Principles and Practices*, 13th edition, to be a helpful guide and that foodservice managers will use it as a ready reference in their work.

## **ONLINE INSTRUCTOR'S RESOURCES**

To access supplementary materials online, instructors need to request an instructor access code. Go to www.pearsonglobaleditions.com/payne, where you can register for an instructor access code. Within 48 hours after registering, you will receive a confirming e-mail, including an instructor access code. Once you have received your code, go to the site and log on for full instructions on downloading the materials you wish to use.

## ACKNOWLEDGMENTS

The writing of a book is truly a team effort. Many wonderful people have assisted with the preparation of the 13th edition of *Foodservice Management: Principles and Practices*. Without their help, our task would have been impossible.

We are deeply appreciative of the excellent work of the original authors, Bessie Brooks West and LeVelle Wood, in providing a text that has been so widely accepted in the United States and abroad for 76 years. The text has been recognized for its authenticity and accuracy, a standard that we have striven to maintain in the new edition. Mrs. West assisted with revisions through the fifth edition before she passed away in 1984 at the age of 93. Miss Wood was active in all revisions through the sixth edition. She died on January 31, 1997. Grace Shugart and Virginia Harger retired as coauthors following publication of the

seventh edition. Ms. Shugart passed away in 1995. Ms. Harger was 102 years of age when she passed away in 2014.

We are grateful to the peer reviewers, who challenged our thinking and made excellent suggestions for changes or additions to the first drafts of the manuscripts. Their comments were honest and open, and many of their ideas have been incorporated into the text. We believe that their input has made the text even more meaningful to our readers. They are Carolyn Bednar, Texas Woman's University; Tracey Brigman, University of Georgia; Paula Cantu, Tarrant County Junior College; Elisabeth Cochrane, Radford University; Ann Dunaway, Georgia State University; Heather Graham-Williams, Truckee Meadows Community College; Ethel Nettles, Michigan State University; Shih-Ming Hu, State University of New York-Oneonta; Rebecca Smith, University of Cincinnati; and Karen Brasfield, Texas State University.

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> June Payne-Palacio Monica Theis

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# The Foundations



CHAPTER 1 The Foodservice Industry

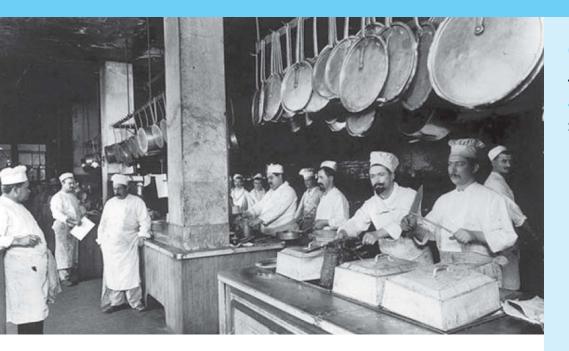


**CHAPTER 2** The Systems Approach

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# The Foodservice Industry



## OUTLINE

#### The History of Foodservice

A Foodservice Industry Timeline
 Summary

## CONSIDERED AMERICA'S FIRST FINE-DINING RESTAURANT,

Delmonico's (above) began life as a small café and pastry shop in New York's financial district run by two brothers from Switzerland. The café had six small matching tables and chairs made of pine. Business grew quickly and required the brothers to expand their café. They soon had the first American restaurant. Culinary firsts introduced by the brothers included presenting diners with a menu, offering private dining rooms, and creating innovative dishes such as eggs Benedict, baked Alaska, lobster Newberg, and the Delmonico steak. With an emphasis on the highest quality ingredients, some grown on their own farm, and great customer service they achieved enormous fortune and worldwide fame. (More details of the history of Delmonico's are included on the timeline in this chapter.)

Delmonico's is just one of many success stories in the foodservice industry. Where did it all start? The history of foodservice is fascinating, ever evolving, and a mirror of the social, political, and economic times of the world in which we live.

Perhaps no other industry is as pervasive as the foodservice industry, which touches the lives of all of us on a daily basis. Those employed in the industry—from research and development scientists, food technologists, farmers, processors, manufacturers, distributors, suppliers, and truckers to those who work in office, plant, and school cafeterias, hotels, hospitals, correctional facilities, the military, in-flight foodservice, formal restaurants, hotel dining rooms, coffee shops, family

restaurants, specialty and ethnic restaurants, and fast-food outlets—can be very proud of the invaluable service they provide to us.

The statistics underscore the size and scope of the industry. Ranked number one among private-sector employers, foodservice directly is expected to employ more than 13.1 million people in 2013, or nearly 10 percent of the U.S. workforce. One-half of all adults in the United States have worked in the foodservice industry at some time during their lives. One of three adults got their first job in a restaurant and 80 percent of foodservice owners started at an entry-level job in the industry. Foodservice is the largest employer of ethnic groups, minorities, women, workers with disabilities, and entry-level workers. The millions of jobs provided and created by the industry, the training and teaching of responsibility and skills, and the opportunities provided to develop self-esteem and for promotion to management and ownership combine to make this industry an exciting, rewarding, and dynamic career choice.

Restaurant industry 2014 sales are predicted to be over \$683.4 billion annually. The restaurant industry's share of the food dollar was 25 percent in 1955, compared with 47 percent today. The National Restaurant Association's *Restaurant Industry Pocket Factbook* describes the magnitude of the industry (Figure 1.1).

Today the **foodservice industry** is defined in its broadest sense to mean all establishments where food is regularly served outside the home. Such establishments include formal restaurants, hotel dining rooms, coffee shops, family restaurants, specialty and ethnic restaurants, and fast-food outlets. Foodservices that operate in schools, colleges, and universities; hospitals, nursing homes, and other health care settings; recreational facilities; transportation companies; the military; correctional facilities; office buildings and plants; convenience stores, supermarkets, service delis, and department stores; and community centers and retirement residences are also included.

The history and development of organizations within the foodservice industry, embedded in the timeline presented in this chapter, are intended to give the reader a perspective on, and an appreciation for, foodservices today. The timeline is not meant to be comprehensive but to provide highlights of the most critical developments in the long history of foodservice.

Why study the history of the foodservice industry? As George Santayana, philosopher, essayist, poet, and novelist, said, "Those who cannot remember the past are condemned to repeat it." History not only provides people with an opportunity to learn from past mistakes, but also can show which of the seeds that were sown blossomed into successes and why. As Radford University's Department of History Web site states, "The study of history provides a window into the past that provides understanding of the present-day, and how individuals, nations, and the global community might develop in the future. Historical study instructs how societies came to be and examines cultural, political, social, and economic influences across time and space." This is certainly true of the foodservice industry.

The systems approach to management is introduced in Chapter 2. This concept is based on the idea that complex organizations are made up of interdependent parts (subsystems) that interact in ways to achieve common goals. The systems concept is applied to foodservice organizations, beginning in this chapter and continuing in each of the subsequent chapters of the book.

Managers face decisions about how to organize foodservice departments for the efficient procurement, production, distribution, and service of their food and meals. Many options are available based on the type of food purchased, where the food is prepared in relation to where it is served, the time span between preparation and service, and the amount and kind of personnel and equipment required.

Foodservices with similar characteristics are grouped as particular types of production or operating systems. Each of the four types of foodservice operating systems found in the United States today is described with its identifying features, advantages, and disadvantages. The typical foodservice organizations that use each type are also identified. This

#### **Foodservice industry**

All establishments where food is served outside of the home



## 2014 Restaurant Industry POCKET FACTBOOK



## Restaurant Industry Sales (In Billions of Current Dollars)



#### 2014 Industry Sales Projection: \$683.4 Rillion

\$005.4 Dimon	(Billion \$)
Commercial	\$624.3
Eating Places	455.9
Bars and Taverns	20.0
Managed Services	47.1
Lodging Place Restaurants	34.8
Retail, Vending, Recreation, Mobile	66.4
Noncommercial Restaurant Services	56.6
Military Restaurant Sales	2.5

## Restaurant Industry's Share of the Food Dollar



## **CONSUMER TRENDS** BY THE NUMBERS

- 72% Consumers who would consider dining out more often if menu prices were lower during off-peak times.
- 58% Consumers who are likely to make a restaurant choice based on its environmental sustainability efforts.
- 64% Consumers who are more likely to visit a restaurant that offers locallyproduced food items.
- 81% Consumers who say there are more healthy options at restaurants than there were two years ago.
- 72% Consumers who are more likely to visit a restaurant that offers healthful options.
- 43% Consumers who would use a touch-screen ordering kiosk if available.

- 44% Consumers who would use a smartphone to look up nutrition information for restaurant food if available.
- 43% Consumers who have placed a restaurant takeout or delivery order online.
- 47% Consumers who would use an electronic payment system at the table if available.
- 87% Consumers who say good service is a key attribute for choosing a restaurant.
- 33% Consumers who factor in information from peer-review websites when choosing a restaurant.
- 65% Consumers who say ease of parking is a key attribute for choosing a limitedservice restaurant.

Visit <u>Restaurant.org/Forecast</u> to view the 2014 Restaurant Industry Forecast video

Figure 1.1 The Restaurant Industry Pocket Factbook 2014. Source: Courtesy of National Restaurant Association (www.restaurant.org)

## America's Restaurants:

#### SMALL BUSINESSES WITH A LARGE IMPACT ON OUR NATION'S ECONOMY

- Restaurant-industry sales are projected to total \$683.4 billion in 2014 and equal 4 percent of the U.S. gross domestic product.
- Restaurant-industry job growth is projected to outpace the overall economy for the 15th consecutive year in 2014.
- The restaurant industry is projected to employ 13.5 million people in 2014 — about one in 10 working Americans.
- The restaurant industry is expected to add 1.3 million jobs over the next decade, with employment reaching 14.8 million by 2024.
- More than nine in 10 eating-and-drinking place businesses have fewer than 50 employees.
- More than seven in 10 eating-and-drinking places are single-unit operations.
- \$72,880 Sales per full-time-equivalent employee at eating-and-drinking places in 2012.
- Average unit sales in 2011 were \$874,000 at fullservice restaurants and \$777,000 at quickservice restaurants.

#### CORNERSTONES OF CAREER AND ENTREPRENEURIAL OPPORTUNITIES

- One-half of all adults have worked in the restaurant industry at some point during their lives, and one out of three got their first job experience in a restaurant.
- **Eight in 10** restaurant owners say their first job in the restaurant industry was an entry-level position.
- Nine in 10 salaried restaurant employees started as hourly workers.
- 59% of first-line supervisors/managers of food preparation and service workers in 2012 were women, 14% were black or African-American and 17% were of Hispanic origin.
- Restaurants employ more minority managers than any other industry.
- The number of black or African-American-owned restaurant businesses jumped 188% between 1997 and 2007, compared to a 36% increase for all restaurant businesses.
- The number of Hispanic-owned restaurant businesses increased 80% between 1997 and 2007, while the number of Asian-owned restaurant businesses grew 60%.
- The number of women-owned restaurant businesses rose 50% between 1997 and 2007.

#### AN ESSENTIAL PART OF DAILY LIFE

- Nine in 10 consumers say they enjoy going to restaurants.
- Two in five consumers say restaurants are an essential part of their lifestyle.
- Seven in 10 consumers say their favorite restaurant foods provide flavors that can't easily be duplicated at home.
- Three-quarters of consumers say going to a restaurant with family and friends is a better use of their leisure time than cooking and cleaning up.

description should provide a basis for managers to decide on the type of operation suitable for a particular situation.

The information in the succeeding chapters is basic to the successful operation of all types of foodservices, whatever their philosophies and objectives. Despite the numerous types of foodservices in operation in the United States today, the fact that they are more alike than they are different should be emphasized. All are concerned with providing good, safe food to meet the specific needs and desires of people served outside the home and to operate in a financially sound manner. In Part 1, the stage is set by providing the reader with a picture of the history of the foodservice industry and its current status, followed by a discussion of trends, the systems approach, and the various types of foodservice production systems in use today. The fundamental aspects of managing a foodservice are presented in Part 2, including the critically important topics of food safety, hazard analysis and critical control point (HACCP), cleaning, sanitation, safety, and the menu. The technical aspects of operating a foodservice are discussed in Part 3. These include purchasing, receiving, storage, inventory, production, and service. These are presented in the order in which they naturally occur. Food and supplies must be purchased, received, and stored before they are used in production and finally served. The focus of Part 4 is management of the physical facilities, including design and layout, equipment and furnishings, energy conservation, solid waste management, and environmental safety. In the final section, the organization and management of foodservice operations are discussed. The fundamentals of management, organizational design, and leadership are presented first. These are followed by the more narrowly defined management functions: human resource management, performance improvement, financial management, and marketing. Although the authors believe that the sequence is a logical one in which to study foodservice, each chapter and case study is designed to stand alone; therefore, chapters may be read in any order.

## LEARNING OBJECTIVE

After studying this chapter, the student will be able to

- **1.** Describe the organizations in which quantity food production was first practiced.
- **2.** Explain how World Wars I and II impacted the food service industry.
- **3.** List the ways in which the country's economic conditions affect the foodservice industry.
- **4.** Outline how advances in microbiology, physics, and industrial engineering have led to improvements in the way food is produced.
- **5.** List some innovative and visionary pioneers of commercial foodservice whose new foods and/or concepts are still in widespread use today.
- **6.** Describe how the popularity of the automobile changed foodservice.
- **7.** List key legislation that has impacted the foodservice industry and continues to do so today.

## **KEY CONCEPTS**

- 1. Religious orders, royal households, colleges, and inns were among the earliest organizations to practice quantity food production.
- **2.** Seventeenth-century foodservices were established in colleges and hospitals or were places to meet to conduct business or socialize.
- **3.** Advances in the fields of microbiology, physics, and industrial engineering led to improvements in how food is produced.
- 4. The restaurant industry, as we know it today, had its beginnings in France.
- **5.** Innovative and visionary pioneers of the commercial foodservice sector introduced many new foods and concepts that continue to enjoy widespread use today.
- **6.** World Wars I and II had a major impact on foodservice operations throughout the twentieth century.
- **7.** Several pieces of key legislation have affected both fine-dining and school foodservice programs in the past and continue to do so today.
- **8.** The popularity of automobile travel was the stimulus for the quick service, drive-in, drive-through, and fast-food concepts.
- **9.** The economic conditions in the country have a major impact on the foodservice industry in all sectors.
- **10.** The successful foodservice operators of the future will continue to learn from the past and build on the foundations that have been laid by those who went before.

## THE HISTORY OF FOODSERVICE

## A FOODSERVICE INDUSTRY TIMELINE 5th Century

**KEY CONCEPT:** Religious orders, royal households, colleges, and inns were among the earliest organizations to practice quantity food production.

**England** Although religious orders and royal household foodservices are far different from those we know today, each has made a contribution to the way in which present-day foodservice is practiced.

Abbeys that dot the countryside, particularly in England, not only serve the numerous brethren of the order, but also thousands of pilgrims who flock there to worship. The space provided for food preparation indicates the scope of their foodservice operations. At Canterbury Abbey, a favorite site of innumerable pilgrimages, the kitchen measures 45 feet wide. Records show that the food preparation carried out by the abbey brethren reaches a much higher standard than food served in the inns. The vows the brothers have taken do not diminish their appreciation for good food. Food is grown on the abbey's grounds, and lay contributions are provided liberally for the institution's table. The strong sense of stewardship in the abbeys leads to the establishment of a detailed accounting system. These records show that a specified per capita per diem food allowance is in effect creating an effective early-day costaccounting system.

The royal household with its hundreds of retainers and the households of nobles, often numbering as many as 150 to 250 persons, also necessitates an efficient foodservice. The differing degrees of rank results in different food allowances within these groups. In providing for these various needs, strict cost accounting is necessary, and this, perhaps, marks the beginning of the present-day scientific foodservice cost accounting.

There are often two kitchens. The cuisine de bouche provides food for the monarch, the principal courtiers, officials, and their immediate servants; the cuisine de commun prepares food for everyone else. Unless an important banquet is being prepared, the two kitchens probably produce similar food. In the castle kitchen, the cook and his staff turn the meat (pork, beef, mutton, poultry, or game) on a spit and prepare stews and soups in great iron cauldrons hung over the fire on a hook and chain that are raised and lowered to regulate the temperature.

Almost all of the kitchen staff is male. A woman's place is certainly not in the kitchen. Even though there is no official record of female kitchen staff before 1620, a few women certainly work as ale wives, hen wives, and the like. Because labor is cheap and readily available, a large staff of male workers are employed to prepare the food. Rank is evident in the division of labor. The head cook might wear a gold chain over handsome clothing and present his culinary creations to his employer in person. The pastry cook and the meat cook do not rate as high, but they are esteemed for their contributions. The average scullion often has scarcely a rag to wear and receives broken bread and the privilege of sleeping on the hearth through the chilly winter nights as his wage.

The diet of the royal household is very largely dependent on meat and, during Lent, on fish. Many castles have their own gardens that provide fresh vegetables, herbs, and fruit. The gardener often receives no pay unless he is able to produce sufficient fruits and vegetables.

The present-day foodservice manager would be appalled by the kitchens in these medieval households in their disregard for sanitary standards in food storage, preparation, and handling. A clutter of supplies, which overflows from inadequate table and shelf space to the wooden plank floors, and are handled by children and nosed by dogs, is the background for the preparation of elaborate creations for the table.

## 10th Century

*Sung Dynasty, China* A restaurant culture is established in the cities of Kaifeng and Hangchow.

## 12th Century

**Europe** Through the Middle Ages at European colleges and universities, hostels are the accepted arrangement for student living. On the continent, students manage these hostels. At Oxford, England, however, hostels are endowed to provide board and lodging for students unable to pay these costs for themselves. At least to some degree, the university manages these endowed hostels—a policy that continues today.

## 14th Century

*Ming Dynasty, China* Tourism becomes a popular pastime; restaurants are in demand; take-out food and catering also flourish.

## 16th Century

Constantinople The first cafés are established to sell snacks and drinks and are places where educated people meet to share ideas and discoveries.

**KEY CONCEPT:** Seventeenthcentury foodservices were established in colleges and hospitals or were places to meet to conduct business or socialize.

America Public houses in Colonial America are popular gathering places for men to drink beer. A limited selection of food is sometimes available.

Colonial colleges in the United States provide residence halls with dining rooms for all students. Administrators, generally clergymen, are responsible for their operation. They dispatch their duties prayerfully and thriftily-not always with student

## 17th Century

approval! Later, with an interest in and therefore a shift toward German educational procedures, which do not include housing as a school responsibility, some colleges lose interest in student living situations. As a result, sororities and fraternities without faculty supervision assume the feeding and housing of large groups of students. In many cases, this also leads to the problem of providing adequate diets for all students.

**KEY CONCEPT:** Advances in the fields of microbiology, physics, and industrial engineering led to improvements in how food is produced.

## 1676

France The discovery of bacteria as the cause of food spoilage leads to improved practices in food storage and in food preparation.

#### 1688

London Edward Lloyd's coffeehouse is referenced in a London newspaper. It is the place for merchant ship owners and maritime insurance agents to meet and conduct insurance transactions. In 1771.

the ownership of the coffeehouse is transferred to professional insurance underwriters and becomes the world-famous Lloyd's of London.

#### 1698

London Two thousand coffeehouses are doing a booming business.

#### 1751

Philadelphia The first hospital is established in the Colonies. Meals in early-day hospitals are simple to the point of monotony, and no attempt is made to provide any special foods or therapeutic diets. Menus in an eighteenth-century American hospital,

for example, include mush and molasses for breakfast on Monday, Wednesday, and Friday, varied by molasses and mush for supper on Monday, Wednesday, Thursday, and Saturday. Oxtail soup and black bread appear on occasion.

*New York* Fraunces Tavern opens at the corner of Pearl and Broad streets where it still operates. Meals from the tavern are regularly sent to George Washington's quarters nearby.

## 1765

## **KEY CONCEPT:** The restaurant industry, as we know it today, had its beginnings in France.

**Paris** The word *restaurant* is first used. The cook shops of France are licensed to prepare ragoûts, or stews, to be eaten on the premises or taken to inns or homes for consumption. The shops have *écriteaux*, or menus, posted on the wall or by the door to whet the interest of the passerby. The story goes that one *boulanger*, a bouillon maker, added a sheep's-foot soup (he calls it a

*restaurant* or restorative soup) to his menu, contending that this was not a ragoût and, therefore, did not violate the rights of the *traiteurs*, or cook shopkeepers. In the legal battle that follows, the French lawmakers sustain his point, and his new business is legalized as a restaurant. The word *restaurant* comes from the French verb *restaurer*, which means "to restore" or "to refresh." It is said that the earliest restaurants had this Latin inscription over their doorway: *Venite ad me qui stomacho laoratis et ego restaurabo vos*—Come to me all whose stomachs cry out in anguish, and I shall restore you!

### 1782

**Paris** The first restaurant is established. A *traiteur* named Beauvilliers opens La Grande Taverne de Londres, converting his take-out shop by listing dishes available on a menu and serving them at small tables during fixed hours.

#### 1784-1833

*France* The first star chef, Antonin Careme, cooks for Czar Alexander of Russia, King George IV of England, Talleyrand of France, and others. He becomes known as the "Cook of Kings and King of Cooks."

#### 1789

**Paris** The modern restaurant industry is launched following the French Revolution. Since the Middle Ages, laws had restricted the selling of certain foods by specific tradesmen. The relaxation of these laws allows chefs for the first time to offer complete individually prepared, portioned, and priced dishes to order by anyone who could afford them.

## 1794

*New York* At the corner of Wall and Water Streets, the Tontine Coffee House opens and becomes a hangout for speculative investors who later found the New York Stock Exchange.

## Early 19th Century

**KEY CONCEPT:** Innovative and visionary pioneers of the commercial foodservice sector introduced many new foods and concepts that continue to enjoy widespread use today.

*Scotland* Industrial catering is begun by Robert Owen, a Scottish mill owner,

near Glasgow during the early nineteenth century. He so improves working conditions for his employees that his mill becomes a model throughout the industrial world. Among other things, it contains a large kitchen and eating room for employees and their families. Prices for meals are nominal, and so begins the philosophy of subsidizing meal service for employees.

#### 1800s

**United States** Many employees provide free or below-cost meals to their employees.

#### 1804

*Philadelphia* Milk, butter, pork, and soap are produced on the Philadelphia Hospital grounds for consumption in the hospital. Also, cows, calves, and pigs are sold for income. Salary for a husband and wife serving as steward and matron is \$350 for nine months of service.

## 1811

*France* Nicolas Appert discovers how to preserve food by canning.

## 1819

**United States** Advances in the understanding of the laws of physics result in the replacement of open hearths with iron stoves and many refinements to the kitchen equipment. Many cooks resist the change from open-hearth cooking to the enclosed iron stove. The wood is expensive, requires storage space, and makes the kitchen dirty.

#### 1824

*New York* Swiss-born Giovanni Del-Monico retires from his career as a sea captain and opens a wine shop.

## 1825

*Philadelphia* The soda fountain is born. A pharmacist offers his customers seltzer water remedies at his drugstore.

*NewYorktoBerne, Switzerland* Giovanni Del-Monico sells his business and returns to Switzerland to join his brother in the candy and pastry business. They then decide to move back to New York. They invest \$20,000 in the new business.

## 1827

*New York* Adapting to American customs, the brothers change their last name to the English version, Delmonico, and open a small café and pastry shop called Delmonico and Brother with six small pine tables and matching chairs where they serve pastries, coffee, chocolate, bonbons, orgeats, wines, liquors, and fancy ices.

## 1830

*New York* The Delmonico brothers expand into the building next door and create the very first restaurant or public dining room ever opened in the United States. They model their business after those that were proliferating in Europe and hire French cooks who have immigrated to the United States. Innovations introduced by the brothers include a bill of fare (now called a menu), new foods (such as eggplant, artichoke, endive, and subtle French sauces), a courteous staff, and better cooking than even in the homes of the wealthiest New Yorkers.

## 1831

*New York* Needing more help, the Delmonicos are joined by their 19-year-old nephew Lorenzo, who for the next 40 years guides the business to a status and reputation that has never been matched. Food is served on fine china, and the menu includes many European imports and the best wines and rare champagnes.

## 1832

**London** Charles Babbage, a mathematician/ philosopher/inventor/mechanical engineer, in his book *On the Economy of Machinery and Manufactures*, argues that the key to business success is a systematic approach to design. This is considered the first publication on operations research.

**United States** The coal stove is patented. Coal is cheaper than wood, requires less storage space, but is dirtier when burned.

## 1834

*New York* The Delmonicos purchase a 220-acre farm on Long Island where they grow vegetables not yet found in America for the restaurant. They also purchase a lodging house.

#### 1835

*London* Charles Babbage designs and builds the first programmable computer (then called an analytical engine).

*New York* A huge fire destroys much of lower New York, including Delmonico's.

## 1836

*New York* The Delmonico brothers remodel the lodging house and reopen their restaurant there just two months after the fire. Later this year, they begin to build a new restaurant.

## 1837

*New York* The new Delmonico's is 3-1/2 stories high. The first and second floors house large saloons (dining rooms) that are luxuriously decorated. The third floor houses the kitchen and several private dining rooms. The wine cellar has vaults for 16,000 bottles of French wine. The entrance to the restaurant features marble columns imported from Pompeii. Delmonico potatoes become a menu item favorite.

## 1845

*New York* Another fire sweeps through New York, destroying the Delmonicos' lodging house but not the restaurant. They decide to build a brand new hotel.

## 1846

*New York* The Delmonico Hotel opens as the first major hotel in the United States to operate on the European plan (the room and meals are priced separately). Under the American plan, a guest pays one price for room and board. The hotel soon becomes world famous.

*France* The first school lunch is offered in canteens.

*California* The cafeteria is born. The cafeteria is a further step in the simplification of restaurant foodservices. This style of self-service came into being during the Gold Rush days of 1849 when the "forty-niners" demanded speedy service. Regarded as an American innovation, its popularity extends throughout the United States. The word *cafeteria* is Spanish for coffee shop.

## 1850

**London** The Reform Club of London hires noted chef Alexis Soyer to provide a sanitary and efficient foodservice setup that includes the recent innovations of gas stoves, water baths, and refrigeration. *Washington, D.C.* President Millard Fillmore puts a gas stove in the White House kitchen, and the cooks refuse to use it.

## 1853

*New York* School foodservice is started in the United States when the Children's Aid Society of New York City opens an industrial school in an effort to persuade children from the slums to see "instruction in industry and mental training," and food is offered to all who come.

## 1855

*Turkey* The beginning of dietetics. Dietetics, as a hospital service, has its beginning at the time of the Crimean War (1854–1856). Florence Nightingale, whom dietitians, as well as nurses, revere and honor as the pioneer of their profession, establishes a diet kitchen to provide clean, nourishing food for the ill and wounded soldiers in Scutari (now Uskudar), Turkey. Until then, foods of questionable quality were poorly cooked in unsanitary conditions and served at irregular intervals (Figure 1.2).

Alexis Soyer (who, as noted earlier, was a chef who had worked with the Reform Club of London) contributes greatly to Nightingale's efforts when he offers to serve without pay as manager of the barracks hospital kitchen. Soyer's plan for operating the kitchen is as efficient as modern-day practice.



**Figure 1.2** A statue of Florence Nightingale. Source: Tony Baggett/Fotolia