Employee Training and Development

Ninth Edition

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EMPLOYEE TRAINING & DEVELOPMENT, NINTH EDITION

To two new family members: Callie Rae, my granddaughter, and Brittany, my daughter in-law. Also, kudos to my cats, Lucky, Chester, and Milo for politely hiding and not misbehaving during the family celebrations.

Preface

The first few days of March 2020, we all experienced something that shook our world: the COVID-19 pandemic. We became familiar with words and phrases like pandemic, shelter-in-place, stay-at-home orders, coronavirus, my bubble, flatten the curve, and social distancing. We adopted (forced in some cases) new practices including wearing masks, washing our hands, and cleaning surfaces we touched. Outside of our household, we had limited face-to-face contact with our friends and family. We had to attend sporting events, concerts, plays, and movies virtually, if they were still available. Online, we shopped, ordered groceries, and got meals delivered. We worked and took classes from home. The way we interacted with our classmates, teachers, and work colleagues and saw friends and family was through using web conferencing tools like Zoom and Microsoft Teams and apps like Facetime and Houseparty. We applauded the essential workers who risked their lives to care for those sickened by the pandemic or helped provide us with the goods and services we needed to cope and survive. Daily news reports showed the pain, suffering, loss of life, and loss of jobs the pandemic inflicted on us. Millions around the world and over 500,000 Americans died from the coronavirus. Hundreds of thousands more experienced its symptoms. Even though we may not have been infected with the virus, most of us have experienced anxiety, frustration, and sadness resulting from living through the pandemic. In addition to the pandemic, the United States also experienced riots, protests, deaths of Black men on the streets, verbal and physical attacks against Asian-Americans, and sexual harassment cases, which brought to our attention issues of economic and social justice, and feelings of inequity many were experiencing.

As vaccines become more widely available and administered and in many parts of the world coronavirus cases are declining, we are cautiously moving back to our normal lives. But there is no doubt that the events that occurred over the past year have personally influenced each of us. The events have also had an impact on company business models and work policies. From a training and development perspective, the pandemic showed how training and development can help companies reach their business goals and contribute to strategy. It also emphasized the need to be able to quickly design new training and reconfigure face-to-face training for new delivery methods. The pandemic has accelerated the transition from face-to-face in-person learning to digital learning and brought increased attention on digital and other skills that employees need. To train during the pandemic, companies reviewed current training programs and considered not only the extent to which they were necessary but how to ensure they facilitated learning. Companies looked for digital learning solutions including online learning, simulations, virtual reality, games, and virtual classrooms that provided the necessary environment for employees to learn (practice, feedback, meaningful, content and interactive). Given the pace of business, employees' often heavy workloads, and the potential continuation of remote working, employees will be unwilling or unable to sit through long training sessions. As a result, there is the continual need for training to be available in short modules that are accessible on an as-needed basis. The "new normal" for training likely will include a blended learning approach as companies will seek the best balance between private, self-paced, as-needed, and on-demand technology-based training and methods that allow interpersonal interaction among trainees and an opportunity to apply what they have learned online to issues and problems they are facing at work (such as classroom instruction or active learning).

The role of training goes beyond training program design. Effective instructional design remains important, but training managers, human resource experts, and trainers are increasingly being asked to create systems to motivate employees to learn, not only in programs but informally on the job; create knowledge and user-generated content such as videos; and share that knowledge and user-generated content with other employees in the company. There is increased recognition that learning occurs informally as well as via technology-aided training outside the boundaries of a formal training course. Developments in artificial intelligence and augmented reality applications for training and development are helping make this possible.

The events of 2020 also highlighted the continued importance of employee development and talent management. To remain competitive or to grow, companies need to develop employees' leadership and other skills needed for their current job and future roles. Many employees working from home during the pandemic spent

time considering their short- and long-term career goals. They also questioned whether their employer was providing them with sufficient learning opportunities to reach their short- and long-term goals and ensure their future employability. Employees want to develop skills that not only are useful for their current jobs, but also are congruent with their personal interests and values. Also, as companies consider their work-life and remote work policies for the "new normal," they are trying to balance both business demands and employees' interests and needs.

Learning and development teams play a large role in designing company's diversity, inclusion, and equity efforts. This includes not only developing relevant training such as unconscious bias training and ally training but also putting in place management policies and practices related to recruitment, development, and compensation that support diversity, inclusion, and equity. Also, diversity, inclusion, and equity efforts need to include vendors, suppliers, educational and nonprofit organizations, and the communities where the business operates.

The chapter coverage of *Employee Training and Development* reflects the traditional as well as the broadening role of training and development in organizations. **Chapter One**, "Introduction to Employee Training and Development," covers the role of training and development in companies. **Chapter Two**, "Strategic Training," discusses how training practices and the organization of the training function can support business goals. Because companies are interested in reducing costs, the amount of resources allocated to training is likely to be determined by the extent that training and development activities help the company reach business goals. Topics related to designing training programs are covered in **Chapters Three** through **Six**. **Chapter Three**, "Needs Assessment," discusses how to identify when training is appropriate. **Chapter Four**, "Learning and Transfer of Training," addresses the learning process and characteristics of a learning environment. The chapter also emphasizes what should be done in the design of training and the work environment to ensure that training is used on the job. **Chapter Five**, "Program Design," provides practical suggestions regarding what can be done to facilitate learning and transfer of training before, during, and after a course or program. The role of knowledge management in facilitating learning and transfer of training is also discussed. **Chapter Six**, "Training Evaluation," discusses how to evaluate training programs. Here, the student is introduced to the concepts of identifying cost-effective training, evaluating the return on investment of training and learning, and determining if training outcomes related to learning, behavior, or performance have been reached. The emerging use of big data and analytics to show the relationship between learning and business results is also discussed. **Chapters Seven** and **Eight** cover training methods. **Chapter Seven**, "Traditional Training Methods," discusses presentational methods (e.g., lecture), hands-on methods (e.g., on-the-job training and behavior modeling), and group methods (e.g., adventure learning). **Chapter Eight**, "Technology-Based Training Methods," introduces new technologies that are being used in training. These technology-based training methods include e-learning, mobile learning, social media, simulations, serious games, massive open online courses (MOOCs), virtual reality, augmented reality (AR), artificial intelligence (AI), and blended learning. **Chapters Seven** and **Eight** both conclude by comparing training methods on the basis of costs, benefits, and learning characteristics.

Chapter Nine, "Employee Development and Career Management," introduces developmental methods (assessment, relationships, job experiences, and formal courses). In addition, the use of development plans to help employees succeed in their self-directed or protean careers is highlighted. Topics such as succession planning and onboarding are discussed. **Chapter Ten**, "Social Responsibility: Legal Issues, Managing Diversity, and Career Challenges," emphasizes the role that training plays in helping companies improve the communities where they are located by increasing the skill level of the workforce, helping provide jobs, and taking actions to help all employees grow and develop, regardless of their personal characteristics or career challenges. The chapter also discusses compliance with laws that affect training and development; training partnerships; managing diversity, equity, and inclusion; cross-cultural preparation; and how companies can help employees deal with career challenges such as balancing work and life, coping with career breaks such as

taking time off for family or required military service, job loss, and retirement. Finally, **Chapter Eleven**, "The Future of Training and Development," looks at how training and development is evolving and might be different five or even ten years from now.

Employee Training and Development is based on my more than 35 years of teaching training and development courses to both graduate and undergraduate students. From this experience, I have realized that managers, consultants, trainers, and faculty working in a variety of disciplines (including education, psychology, business, and industrial relations) have contributed to the research and practice of training and development. As a result, the book is based on research conducted in several disciplines, while offering a practical perspective. The book is appropriate for students in a number of programs. It suits both undergraduate and master's-level training courses in a variety of disciplines.

DISTINCTIVE FEATURES

This book has several distinctive features. First, my teaching experience has taught me that students become frustrated if they do not see research and theory in practice. As a result, one distinctive feature of the book is that each chapter begins with a real-life vignette of a company practice that relates to the material covered in the chapter. Many examples of company practices are provided throughout the chapters. Each chapter ends with a real-life case and related questions that give students the opportunity to apply the chapter's content to an actual training or development issue.

A second distinctive feature of the book is its topical coverage. The chapters included in **Part Two**, "Designing Training," relate to training design (needs assessment, training methods, learning and transfer of training, and program design and evaluation). Instructional design is still the "meat and potatoes" of training. **Part Three**, "Training and Development Methods," covers the more exciting part of training and development—that is, training and development methods. But as the role of managers and trainers broadens, they are increasingly involved in helping all employees grow, develop, and cope with career challenges, as well as preparing high-potential employees for leadership positions. For example, managers and trainers need to understand employees' career needs; career paths; cross-cultural training; diversity, equity, and inclusion; job loss; and succession planning—topics that fall outside the realm of instructional design. These topics are covered in **Part Four**, "Social Responsibility and the Future."

The book begins with a discussion of the context for training and development. **Part One** includes chapters that cover the economic and workplace factors that are influencing trends in the training profession. One of these trends is that companies are emphasizing learning through formal training and development, knowledge management, and informal learning. In addition, these chapters discuss the need for training, development, and learning to become strategic (i.e., to contribute to business strategy and organizational goals). Why? In successful, effective training, all aspects of training—including training objectives, methods, evaluation, and even who conducts the training—relate to the business strategy. More and more companies are demanding that the training function and training practices support business goals; otherwise, training may be outsourced or face funding cuts. Although students in business schools are exposed to strategic thinking, students in psychology and education who go on to become trainers need to understand the strategic perspective and how it relates to the organization of the training function and the type of training conducted.

Not only has technology changed the way we live and the way work is performed, but it also has influenced training practices. As a result, one chapter of the book is devoted entirely to the use of technologies for training delivery and instruction, such as online learning, social media, mobile learning, gamification, virtual and augmented reality, and artificial intelligence.

The book reflects the latest "hot topics" in the area of training and development. Some of the new topics discussed in the book are agile instructional design, capability model for training professionals, digital learning, microlearning, microcredentials, augmented reality (AR), artificial intelligence (AI), chatbots, reverse mentoring, ally training, telepresence, learning experience platforms (LXP), and neurodiversity and accessible training. Each chapter contains the most recent academic research findings and company practices.

FEATURES DESIGNED TO AID LEARNING

Employee Training and Development provides several features to aid learning:

1. Each chapter lists objectives that highlight what the student is expected to learn in that chapter.

2. In-text examples and chapter openers feature companies from all industries, including service, manufacturing, retail, and nonprofit organizations.

3. Discussion questions at the end of each chapter help students learn the concepts presented in the chapter and understand potential applications of the material.

4. Important terms and concepts used in training and development are boldfaced in each chapter. Key terms are identified at the end of each chapter. These key terms are important to help the student understand the language of training.

5. Application assignments are useful for the students to put chapter content into practice. Most chapters include assignments that require the student to use the World Wide Web.

6. Cases at the end of each chapter and at the end of each of the four parts of the book help students apply what they have learned to training and development issues faced by actual companies.

7. Name and subject indexes at the end of the book help in finding key people and topics.

WHAT'S NEW IN THE NINTH EDITION

I want to personally thank all of you who have adopted this book! Based on the comments of the reviewers of the eighth edition and training research and practice, I have made several improvements. Some important changes in the ninth edition of *Employee Training and Development* stand out:

*   Each chapter has been updated to include the most recent research findings and new best company practices. New examples have been added in each chapter's text.

*   All the chapter opening vignettes are new or updated. For example, the opening vignette for **Chapter Eight** highlights how Infosys created Lex, a user-friendly learning platform that offers thousands of courses and content internally developed as well as purchased from training vendors. Employees can search Lex for training on topics they know they want to learn. Lex can also provide recommendations based on employees' interests, current position, or career goal.

*   This edition offers new and expanded coverage of topics related to training for nontraditional employees, learning, program design, training methods, evaluation, development, and the future of training.

*   From the learning and program design perspective, expanded and new coverage is provided on agile instructional design, digital learning, use of learning councils in needs assessment, microlearning, and root cause analysis. Also, new coverage is provided for opening a training session; leading a discussion during training; matching learner-learner, learner-content, and learner-instructor interaction based on training content; converting face-to-face training to online learning; creating inclusive and accessible training; and training international audiences. There is also expanded and updated coverage of online learning, simulations, virtual reality (VR), serious games, augmented reality (AR), training applications of artificial intelligence (AI), and chatbots.

- From a development and career perspective, this edition provides new and expanded coverage of managing diversity, equity, and inclusion; melting the glass ceiling; coping with career breaks; and reverse mentoring.

- In training evaluation, the fundamentals remain important, but there is also an increased interest in and use of big data and workforce analytics to show how learning, training, and development contribute to talent management and the company's "bottom line." As a result, in the evaluation chapter, we include a new discussion of impact analysis for identifying training outcomes and human capital reporting standards.

- Finally, new technologies have the potential to radically alter how and when we learn and provide support for learning. Also, because companies need to change and quickly adapt means the instructional design process needs to be rapid, effective, and meet stakeholders needs. As a result, the last chapter of the book now discusses the implications of artificial intelligence, automation and robotics on employees' digital literacy and other skills, telepresence, learning experience platform (LXP), and the use of design thinking and lean management principles in agile instructional design.

- We discuss briefly about generational differences and learning styles and the lack of research supporting their conclusions.

- Each chapter ends with discussion questions and application assignments, many of which are new or have been updated for this edition.

- Each chapter concludes with new brief cases that illustrate a training, development, or learning issue faced by a company. The case questions ask students to consider issues and make recommendations based on the chapter content.

- To help students better understand the connections between topics, the book is organized into four different parts. **Part One** focuses on the context for training and development and includes a chapter devoted to strategic training. **Part Two** includes coverage related to the fundamentals of designing training programs. Chapters in **Part Two** focus on needs assessment, learning theories and transfer of training, program design, and training evaluation. **Part Three** focuses on training and development methods and includes chapters devoted to traditional training methods, e-learning, and the use of new training technologies such as social media and mobile learning. The chapters in **Part Four** cover employee development and career management and the role of training and learning in helping companies increase their social responsibility. This includes following laws and regulations that relate to training, as well as managing diversity and helping employees cope with career challenges such as balancing work and life, career breaks, identifying and moving along a career path, preparing for retirement, and coping with job loss. Finally, this part provides a look at the future of training and development.

- Each part includes a new case designed to help students apply what they have learned in the chapters to a real company issue.

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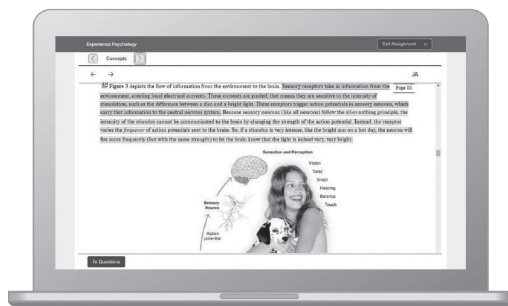
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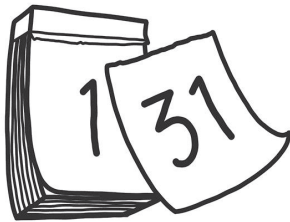
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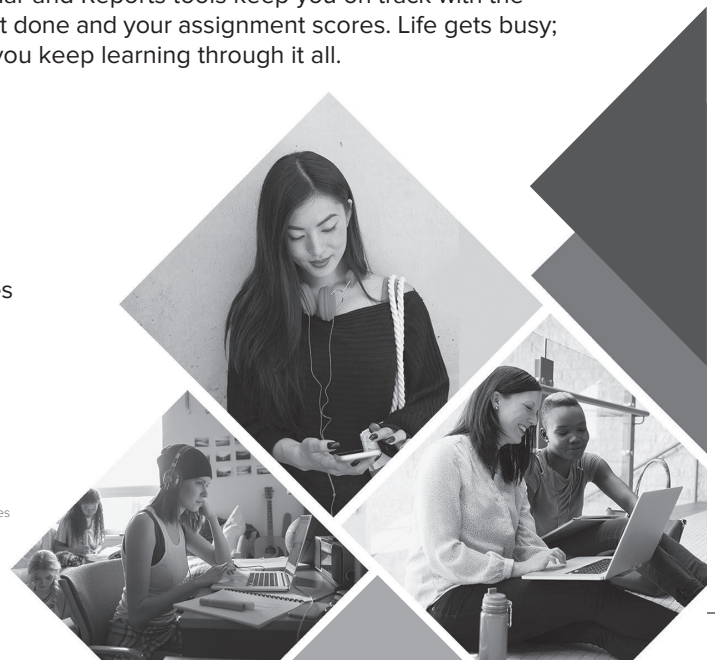
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About the Author

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Raymond A. Noe is the Robert and Anne Hoyt Designated Professor of Management at The Ohio State University. Before joining the faculty at Ohio State, he was a professor in the Department of Management at Michigan State University and the Industrial Relations Center of the Carlson School of Management, University of Minnesota. He received a B.S. in psychology from The Ohio State University and M.A. and Ph.D. degrees in psychology from Michigan State University. Professor Noe conducts research and teaches all levels of students—from undergraduates to executives—in human resource management, training and development, performance management, and talent management. He has published articles in the *Academy of Management Annals, Academy of Management Journal, Academy of Management Review, Human Resource Development Quarterly, Journal of Applied Psychology, Journal of Management, Journal of Occupational and Organizational Psychology, Journal of Vocational Behavior*, and *Personnel Psychology*. Professor Noe is currently on the editorial boards of several journals, including *Journal of Applied Psychology, Personnel Psychology*, and *Journal of Management*. Besides *Employee Training and Development*, he has co-authored two other textbooks: *Fundamentals of Human Resource Management* and *Human Resource Management: Gaining a Competitive Advantage*, both published by McGraw-Hill/Irwin. Professor Noe has received awards for his teaching and research excellence, including the Herbert G. Heneman Distinguished Teaching Award, the Ernest J. McCormick Award for Distinguished Early Career Contribution from the Society for Industrial and Organizational Psychology, and the ASTD Outstanding Research Article of the Year Award. He is also a fellow of the Society of Industrial and Organizational Psychology.

Brief Contents

Contents

Organization of this Book

This book is organized into five parts. **Part One** focuses on the context for training and development and begins with **Chapter One**, which offers a broad perspective on training and helps answer questions such as: What is training? Why is it important? Who is receiving training? How much money is spent on training? How should training be designed? **Part One** also includes **Chapter Two**, which discusses the strategic training and development process. In **Chapter Two**, you will see how a company's business strategy influences training practices and the organization of the training department. **Chapters Three** through **Six** make up **Part Two**. These chapters discuss the fundamentals of training design and address different aspects of the Instructional System Design (ISD) model, the model used to guide the development of training (see **Figure 1.2**). **Chapter Three** deals with how to determine training needs. **Chapter Four** discusses the important issue of learning—specifically, the importance of learning and transfer of training. The chapter emphasizes what we learn, how we learn, and how to create an environment conducive to learning within a training session. The chapter also discusses what needs to be considered for transfer of training (i.e., ensuring that skills emphasized in training are used on the job). **Chapter Five** provides insights into the specifics of how training programs should be designed to facilitate learning and transfer. The chapter covers the importance of room design, learning objectives, selecting and preparing trainers, and course planning for learning, as well as how managers, trainers, learners, and knowledge management can facilitate transfer of training. **Chapter Six** explains how to evaluate a training program. **Part Three** focuses on training and development methods. **Chapter Seven** looks at traditional training methods such as lecture, behavior modeling simulation, and role play. **Chapter Eight** examines e-learning and methods that have developed from applications of new technology, for example, web-based training, virtual reality, mobile learning, and social collaboration.

Chapter Nine addresses the important issue of employee development and career management; it discusses four approaches used to develop employee assessments, assignments, relationships, courses, and formal programs. **Part Four** considers training's role in social responsibility and the future of training and development. **Chapter Ten** deals with legal issues and diversity. Topics covered include ethics and legal issues, managing diversity, cross-cultural training, and issues relevant to certain employee groups, such as coping with career breaks and melting the "glass ceiling." **Chapter Eleven** discusses how new technologies may influence training and how its role may change in the future.

Students should be aware of several important features of the book. Each chapter begins with chapter objectives. These objectives (1) highlight what the student should learn from each chapter and (2) preview the topics. Next comes an opening vignette—an example of a company practice related to the chapter topics. Company examples are liberally used throughout each chapter to help students see how theory and research in training are put into practice. Each chapter ends with key terms, discussion questions, application assignments, and a short case. Key terms are related to important concepts emphasized in the chapter. Discussion questions and application assignments can facilitate learning through interacting with other students and actually trying to develop and conduct various training applications. Many application assignments require the use of the web, a valuable source of information on training practices. Each of the parts concludes with a case that highlights a company's training and development practices. These cases include questions asking you to apply what you have learned in the chapters.

PART ONE

The Context for Training and Development

Part One focuses on issues related to the context for training and development. **Chapter One**, "Introduction to Employee Training and Development," discusses why training and development are important to help companies successfully compete in today's business environment. The chapter provides an overview of training practices, the training profession, and how to design effective training (a topic that is covered in detail in **Part Two**, "Designing Training"). **Chapter Two**, "Strategic Training," discusses the strategic training and development process, organizational characteristics that influence training, various models for organizing the training department, how to brand training and market it to the rest of the company, and the advantages and disadvantages of outsourcing training.

Part One concludes with a case that highlights how Amazon is using learning strategically to cope with the forces and challenges influencing today's workplace.

1. Introduction to Employee Training and Development
2. Strategic Training

CHAPTER ONE

Introduction to Employee Training and Development

Objectives

After reading this chapter, you should be able to

1-1 Discuss the forces influencing the workplace and learning, and explain how training can help companies deal with these forces.

1-2 Draw a figure or diagram and explain how training, development, informal learning, and knowledge management contribute to business success.

1-3 Discuss various aspects of the training design process.

1-4 Describe the amount and types of training occurring in U.S. companies.

1-5 Discuss the capabilities training professionals need.

1-6 Identify appropriate resources (e.g., journals, websites) for learning about training research and practice.

Forces Affecting the Workplace Make Training a Key Ingredient of Company Success

Customer service, employee retention and growth, the economy and the effects of the global coronavirus pandemic, a diverse workforce, the need to upskill employees, and extending learning beyond the class-room—these are just some of the issues affecting companies in all industries and sizes and influencing training and development practices. The five companies discussed below—Earls, PwC, Paychex, GTT Communications, and Abbott Laboratories—show how these concerns have affected companies in several different business sectors and how training and development have helped them succeed.

Earls is a family owned premium casual dining chain of restaurants across the United States and Canada. During the pandemic, Earls invested in virtual learning for all of its 6,500 employees. The training focused on the skills the kitchen crew and servers need to keep themselves and customers safe (and satisfied) during the pandemic. The skills included how to best utilize space in a small kitchen, interact with customers while wearing a face mask, use proper manners in greeting customers, and help customers use table-top technology to order meals.

PwC, an accounting and professional services firm, invested in a digital upskilling program to develop its employees. The program evolved from the company's recognition that they needed to be able to use technology to change how PwC employees worked and served their clients. The program is sponsored and supported

by the business and collaboratively designed with leaders and the human resource function. The company invested $3 billion into training for its 275,000 employees around the world to help ensure they have the skills they need to compete in the growing digital economy. PwC offers 12 badges in a diverse range of digital skills including human-centered design, analytics, artificial intelligence, and data visualization. Training is delivered in multiple ways including instructor-led, games, apps, and podcasts. This provides the opportunity for employees to choose the way they want to learn. Employees earn digital badges for each digital skill they master. To encourage employees to participate in the upskilling program, once each quarter PwC offers days dedicated to upskilling. PwC's global chairman also communicated to employees that if they participated in the upskilling program, they would have guaranteed future employment with the company.

Paychex, a provider of human resource, payroll, and benefits services, was already redesigning its learning programs for virtual settings when the COVID-19 pandemic hit. Virtual learning at Paychex involves offering engaging content and a good learner experience. For example, its sales training program includes self-paced e-learning modules, a dedicated learning coach who facilitates ongoing virtual coaching, and social learning. Sales reps use a video coaching app to practice, present, fail, and practice again key skills with their learning coach and manager. Other training is offered in 30 minute time periods followed by a game that gets trainees actively involved in learning.

GTT Communications, a provider of cloud networking services, is trying to meet millennials' and Generation Z employees' need for opportunities to grow and develop. New college graduates hired into its sales development program have the opportunity to quickly move into an account executive position. The program includes training and coaching from more experienced salespersons. GTT believes the program helps attract and retain talent in a competitive labor market.

Abbott Laboratories, a multinational company that develops health technologies to help us live better lives, values diversity of people, products, technologies, and geographies. The company believes that diverse perspectives and shared goals are necessary to inspire new ideas needed to solve today's health care challenges. As a result, Abbott invests money, time, and energy to ensure that the company's culture is inclusive and equitable. For example, its development program includes mentoring to help Black, Indigenous, and People of Color (BIPOC) and women get the experiences, exposure, and visibility needed to gain managerial roles. An executive sponsorship program for newly hired minority and female leaders provides career support. Abbott also offers a high school internship for young women and underrepresented students to encourage them to consider careers in science, technology, engineering, and math (STEM). Because of its efforts, Abbott has been recognized as an employer of choice for BIPOC. It has been on DiversityInc's list of Top Companies for Diversity from 2004 to 2020 and *Working Mother* magazine's 100 Best Companies for 20 consecutive years.

Sources: Based on J. Meister, "3 Ways HR Leaders Can Build New Capabilities During COVID-19," *Human Resource Executive* (May 6, 2020), from https://hrexecutive.com, accessed June 26, 2020; C. BasuMallick, "How PwC's Digital Upskilling Program Is Preparing Its Workers for the Future," *HR Technologist* (March 4, 2020), from www.hrtechnologist.com, accessed February 19, 2021; S. Firisen, "Embarking on a Digital Upskilling Journey to Drive Change," *UiPath* (August 25, 2020), from www.uipath.com, accessed February 19, 2021; S. Feloni, "If You Opt In, We Will Not Leave You Behind'—PwC's Global Chairman Announces a $3 Billion Investment in Job Training," *Business Insider* (September 30, 2019), from www.businessinsider.com, accessed February 19, 2021; J. Colletta, "Exploring the Virtual Future of L&D," *Human Resource Executive* (June 12, 2020), from https://hrexecutive.com, accessed June 26, 2020; "Training Top 125 2020: Paychex," *training* (March/April 2020), p. 45; "About Abbott" and "An Inclusive Culture," from abbott.com /careers/diversity-and-inclusion.html, accessed February 20, 2021; "No. 8: Abbott," *DiversityInc*, from divesityinc.com/abbott-2020, accessed February 20, 2021.

Introduction

The examples discussed in the chapter opener illustrate how training can contribute to companies' competitiveness. **Competitiveness** refers to a company's ability to maintain and gain market share in an industry. Although they are different types of businesses, these five companies have training practices that have helped

them gain a **competitive advantage** in their markets. That is, their training practices have helped them grow the business and improve customer service by providing employees with the knowledge and skills they need to be successful.

Companies are experiencing great change due to new technologies, rapid development of knowledge, globalization of business, and development of e-commerce. To remain competitive in this environment, companies must take steps to attract, retain, and motivate their workforces. Training is not a luxury; it is a necessity if companies are to participate in the global and electronic marketplaces by offering high-quality products and services. Training prepares employees to use new technologies, function in new work systems such as virtual teams, and communicate and cooperate with peers or customers who may be from different cultural backgrounds.

Human resource management refers to the policies, practices, and systems that influence employees' behavior, attitudes, and performance. Human resource practices play a key role in attracting, motivating, rewarding, and retaining employees. Other human resource management practices include recruiting employees, selecting employees, designing work, compensating employees, and developing good labor and employee relations. **Chapter Two**, "Strategic Training," details the importance placed on training in comparison to other human resource management practices. To be effective, training must play a strategic role in supporting the business.

Human resource management is one of several important functions in most companies. Other functions include accounting and finance, production and operations, research and development, and marketing. Keep in mind that although human resource management practices (such as training) can help companies gain a competitive advantage, the company needs to produce a product or provide a service that customers value. Without the financial resources and physical resources (e.g., equipment) needed to produce products or provide services, the company will not survive.

This chapter begins by defining training and development and discussing how the training function has evolved. Next, the forces that are shaping the workplace and learning are addressed. These forces influence the company's ability to successfully meet stakeholders' needs. The term **stakeholders** refers to shareholders, the community, customers, employees, and all the other parties that have an interest in seeing that the company succeeds. The discussion of the forces shaping the workplace (including technology, globalization, and attracting and winning talent) highlights the role of training in helping companies gain a competitive advantage.

The second part of the chapter focuses on current trends in training practices. This section also introduces you to the trainer's role in a business and how the training function is organized. This section should help you understand current training practices, the types of jobs that trainers may perform, and the capabilities needed to be a successful trainer (or, if you are a manager, the capabilities needed to identify a successful trainer). The chapter concludes with an overview of the topics covered in the book.

Training and Development: Key Components of Learning

Our focus in this book is to help you understand the role of training and development in today's organizations. To do this, it is important for you to understand what training and development means in the broader business context. **Figure 1.1** shows the role of training and development for the business. The overall goal of training and development is learning. **Learning** refers to employees acquiring knowledge, skills, competencies, attitudes, or behaviors. But the focus of training and development is not just on employees learning for its own sake. Today, merely offering training programs is not enough to get support and funding from executives and to establish the credibility of the training and development function to managers and employees.

FIGURE 1.1 **The Business Role of Training and Development**
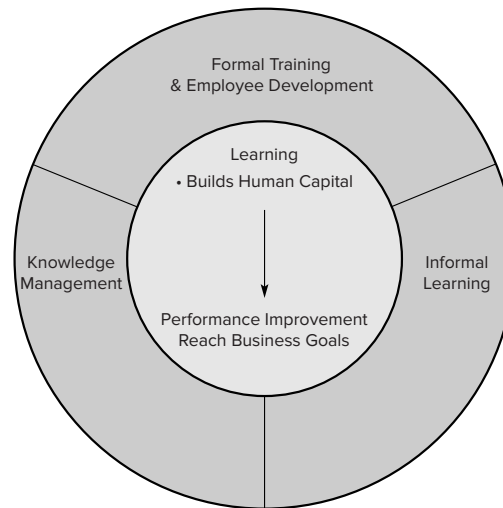
Learning needs to demonstrate how it contributes to the company's competitive advantage through improving employee performance, supporting the business strategy (such as growing the business), and contributing positively to business outcomes such as quality, productivity, development of new products, and retaining key employees. From a company's perspective, what employees learn contributes to the development of intangible assets such as human capital. **Human capital** refers to knowledge (know what), advanced skills (know how), system understanding and creativity (know why), and motivation to deliver high-quality products and services (care why).[1] Human capital may be more valuable than physical capital (equipment or technology) or financial capital (monetary assets, cash) for providing a company with an advantage over its competitors, because it is difficult to imitate or purchase and it is unique to the company.

There are a number of different ways that learning occurs in a company. They are represented on the outside of the circle in **Figure 1.1**. **Training** refers to a planned effort by a company to facilitate learning of job-related competencies, knowledge, skills, and behaviors by employees. The goal of training is for employees to master the knowledge, skills, and behaviors emphasized in training and apply them to their day-to-day activities. Traditionally, companies have relied on formal training through a course, program, or "event" to teach employees the knowledge, skills, and behaviors they need to successfully perform their job. Development is similar to training, except that it tends to be more future-focused. **Development** refers to training as well as formal education, job experiences, relationships, and assessments of personality, skills, and abilities that help employees prepare for future jobs or positions. We will discuss development in more detail in **Chapter Nine**, "Employee Development and Career Management." **Formal training and development** refers to training and development programs, courses, and events that are developed and organized by the company. Typically, employees are required to attend or complete these programs, which can include face-to-face training programs (such as instructor-led courses) as well as online programs. As you will see later in the chapter, U.S. companies invest billions of dollars in formal training.

Informal learning is also important for facilitating the development of human capital.[2] **Informal learning** refers to learning that is learner initiated, involves action and doing, is motivated by an intent to develop, and does not occur in a formal learning setting.[3] Informal learning occurs without a trainer or instructor, and its breadth, depth, and timing is controlled by the employee. It occurs on an as-needed basis and may involve an employee learning either alone or through face-to-face or technology-aided social interactions. Informal learning can occur in many different ways, including through casual unplanned interactions with

peers, e-mail, informal mentoring, or company-developed or publicly available social networking websites such as Twitter or Facebook. The application of social media from a marketing strategy to a learning strategy and the availability of social networks, microblogs, and wikis allow employees easy access to social learning or learning through collaboration and sharing with one or two or more people.[4] One estimate is that informal learning may account for up to 75 percent of learning within organizations.

One reason why informal learning may be especially important is that it may lead to the effective development of *tacit* knowledge, which can be contrasted with *explicit* knowledge.[5] **Explicit knowledge** refers to knowledge that is well documented, easily articulated, and easily transferred from person to person. Examples of explicit knowledge include processes, checklists, flowcharts, formulas, and definitions. Explicit knowledge tends to be the primary focus of formal training and employee development. **Tacit knowledge** refers to personal knowledge based on individual experiences that is difficult to codify. The characteristics of formal training and development programs, such as the relatively short duration of classroom or online training and limited opportunities for practice, may limit the extent to which tacit knowledge can be acquired. Thus, informal learning is central to the development of tacit knowledge because it involves employee interactions in personal relationships with peers, colleagues, and experts through which tacit knowledge is shared. It is important to recognize, however, that informal learning cannot replace formal training and employee development. Formal training and development are still needed to prepare employees for their jobs and to help them advance to future positions. Informal learning complements training by helping employees gain tacit knowledge that formal training cannot provide. In fact, research suggests that providing opportunities for formal training encourages employees to engage in follow-up informal learning.[6]

Knowledge management refers to the process of enhancing company performance by designing and implementing tools, processes, systems, structures, and cultures to improve the creation, sharing, and use of knowledge.[7] Knowledge management contributes to informal learning. Moneris is a Canadian company that provides payment processing and supporting technologies.[8] To obtain the skills they need, employees can use an online learning portal to access training courses on sales, leadership, and general business skills. After completing a course, employees can use the portal to share best practices and what they have learned. They can also post questions on a discussion board. This helps encourage employees to learn outside the boundaries of training courses by networking and collaborating with peers.

Many companies that recognize the value of learning have taken steps to ensure that formal training and employee development are linked to strategic business objectives and goals, use an instructional design process to ensure their effectiveness, and compare or benchmark the company's programs against competitors or other companies in the industry.[9]

Formal training and development, informal learning, and knowledge management should be encouraged and used together as part of a company's business strategy to develop human capital and improve performance. For example, consider the role of learning at BMO Financial Group.[10] During the past year, the talent development Team at BMO Financial Group has been piloting an innovative approach to informal learning that offers employees new ways to apply their skills and gain fresh career experiences. Called #HelpWanted, it is a virtual job board where managers can post short-term projects or challenges with which they need help and where employees can volunteer to take on gigs that match their skills. The talent development team vets the projects to ensure they align with program goals. Participants who engage in the projects complete surveys to share their perspectives, which help influence program strategy and direction. The team is ramping up the program to test it at scale, opening it up to more than 10,000 employees over the next year. BMO also offers formal training and development through BMO U. BMO U offers bite-size, high-quality content, such as podcasts, articles, videos, e-books, and a range of online courses. The company reports that employees like the variety of resources and the opportunity to follow curated learning pathways. For every resource, the talent development team posts an estimated time for completion up front, so employees can fit the learning into their busy schedules. Elements of social learning that are embedded in the digital platform have also helped

with adoption. Employees can follow other users, track learning, and customize a personal news feed. The creation of employee groups around specific learning topics has generated the most engagement. Key ambassadors in each line of business lead and design those groups; they share relevant best practices and insights, answer employee questions, and host informal brainstorming sessions.

This discussion is not meant to underestimate the importance of "traditional training" (which focuses on the acquisition of knowledge, skills, and abilities), but it should alert you that, for many companies, training is evolving from a focus on skills to an emphasis on continuous learning and the creation and sharing of knowledge. This evolution of training is discussed in **Chapter Two**.

Designing Effective Training

The **training design process** refers to a systematic approach for developing training programs. **Figure 1.2** presents the seven steps in this process. Step 1 is a needs assessment, which is necessary to identify whether training is needed. Step 2 is to ensure that employees have the motivation and basic skills necessary to master the training content. Step 3 is to create a learning environment that has the features necessary for learning to occur. Step 4 is to ensure that trainees apply the training content to their jobs. This step involves having the trainee understand how to manage skill improvement, as well as getting co-worker and manager support.

Step 5 is to develop an evaluation plan. Developing an evaluation plan includes identifying what types of outcomes training is expected to influence (e.g., learning, behavior, or skills), choosing an evaluation design that allows you to determine the influence of training on these outcomes, and planning how to demonstrate how training affects the "bottom line" (i.e., using a cost-benefit analysis to determine the monetary benefits resulting from training). Step 6 is to choose the training method based on the learning objectives and learning environment. This step may include a traditional training method of face-to-face interaction with a trainer or e-learning using web-based training or mobile learning. Step 7 is to evaluate the program and make changes in it or revisit any of the earlier steps in the process to improve the program so that learning, behavior, change, and other learning objectives are obtained.

FIGURE 1.2 Training Design Process
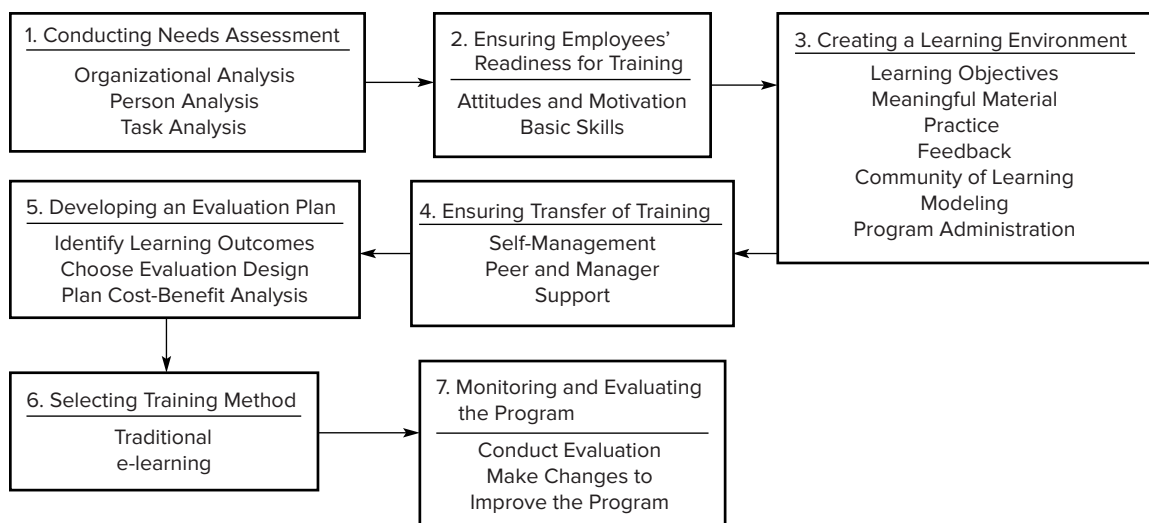
The training design process shown in **Figure 1.2** is based on principles of Instructional System Design. **Instructional System Design (ISD)** refers to a process for designing and developing training programs. There is not one universally accepted instructional system development model. The training design process sometimes is referred to as the *ADDIE model* because it includes *a*nalysis, *d*esign, *d*evelopment, *i*mplementation, and *e*valuation.[11] In **Figure 1.2**, Step 1 (Conducting needs assessment) and Step 2 (Ensuring employees' readiness for training) are related to analysis. The next three steps—Creating a learning environment; Ensuring transfer of training; and Developing an evaluation plan—are design issues. Step 6 (Selecting and using a training method) relates to implementation. Step 7 (Monitoring and evaluating the program) relates to evaluation. Regardless of the specific ISD approach used, all share the following assumptions:[12]

- Training design is effective only if it helps employees reach instructional or training goals and objectives.
- Measurable learning objectives should be identified before the training program begins.
- Evaluation plays an important part in planning and choosing a training method, monitoring the training program, and suggesting changes to the training design process.

Keep in mind that designing training unsystematically will reduce the benefits that can be realized. Choosing a training method before determining training needs or ensuring employees' readiness for training increases the risk that the method chosen will not be the most effective one for meeting training needs. Also, training may not even be necessary and may result in a waste of time and money. Employees may have the necessary knowledge, skills, or behavior but simply lack the motivation to use them.

Trainers for AbsorbU, the internal college for ITU AbsorbTech, an industrial laundry service company, design courses using the ADDIE model.[13] AbsorbU focuses on learning needs related to customer service, production, leadership, and sales. AbsorbU trainers find that using the ADDIE model helps them to identify training needs and desired results and focus attention on knowledge transfer or behavior change. Also, they use ADDIE when they are revisiting courses to ensure that the content remains useful.

Overcoming the Flaws of the ISD Model

Some training professionals argue that the ISD model is flawed for several reasons.[14] First, in organizations, the training design process rarely follows the neat, orderly, step-by-step approach of activities shown in **Figure 1.2**. Second, in trying to standardize their own ISD method used in the training function, some organizations require trainers to provide detailed documents of each activity found in the model and seek approval that each step is done correctly before moving to the next one. This adds time and cost to developing a training program. Third, the ISD implies an end point: evaluation. However, good instructional design requires an iterative process of design, execution, evaluation, and reconsideration of the needs that the program was designed to meet, as well as the learning environment, the transfer of training, and all the other activities in the ISD process. Fourth, many companies claim to use an instructional design approach but dilute its application.[15] This might include assuming that training is the best solution without investigating other causes for performance gaps, failing to identify training objectives and results, focusing too much on the training method while ignoring the role of the work environment in transfer of training, and concentrating evaluation on whether trainees liked the program rather than measuring the impact of training on job performance or business results. Despite these criticisms, use of the ISD process is the best way to help ensure the effectiveness of training and development.

To overcome the limitations of the ISD model, companies are starting to use agile learning design. **Agile learning** or **agile instructional design** refers to any approach to training development that focuses on speed, flexibility, collaboration, repeated review, and reuse of existing content, if appropriate.[16] Course development occurs in what are known as "short bursts" or "sprints." There are likely several of these sprints involved for

each part of a course. Each "sprint" includes planning, designing, developing, testing, deploying, reviewing, and launching.[17] The process starts again for each element of the course and ends when the entire course is complete. Designing training starts with a meeting between stakeholders, clients, creators, designers, and any other employees involved in the project. This meeting involves brainstorming, initial development of a design plan, and identification of course objectives. After the initial meeting development begins, and an example or prototype of one element of the course is created and sent to the stakeholders to test, review, and provide feedback. The course element is then changed according to feedback and test results. Course designers meet frequently, sometimes daily, during this phase to ensure that all team members understand their roles and that changes can be implemented quickly. This process is repeated for each element of a course until the entire course is completed. Once the course is completed, it is shown in rough form to the clients. The clients provide suggestions and feedback and the designers make changes. Once all necessary changes have been made, the course is ready for use.

It may be best to combine ISD or ADDIE and agile learning when designing training. For example, ADDIE can be used for the analysis and design phases. Then, the concepts and techniques of agile instructional design can be used to quicken the development, implementation, and evaluation phases.

Consider how Walmart's learning and development team uses agile principles.[18] Prior to using agile design, the team was segmented with a mix of instructional designer and project management roles supporting specific business areas. Courses took an average of 20 weeks to develop. Multiple teams worked independently to support the same business area. Development time varied from team to team as did how they measured the quality of their work. The starting point for using agile design involved learning and development providing resources to teams based on their skill sets and scheduling development work in a queue for the teams to complete. The use of agile principles reduced course development time to approximately an average of three weeks. Using the agile principles helped the learning and development team increase their ability to forecast training needs. This also helped them provide additional resources such as additional developers when needed rather than contracting with training experts from vendors and consulting firms.

The Forces Influencing Working and Learning

Table 1.1 illustrates the forces that influence working and learning. Globalization of business, demographic changes, new technologies, and economic cycles are some of the forces shown in **Table 1.1** that influence all aspects of our lives—how we purchase products and services, how we learn, how we communicate with each other, and what we value in our lives and on the job.[19] These forces are affecting individuals, communities, businesses, and society. To survive, companies must address these forces—with training playing an important role.

TABLE 1.1   **Forces Influencing Working and Learning**

Economic cycles
Globalization
Increased value placed on intangible assets and human capital
Focus on link to business strategy
Changing demographics and diversity of the workforce
Talent management
Customer service and quality emphasis
New technology
High-performance work systems

Economic Cycles

The global pandemic caused by COVID-19 caused the creation of a "new normal."[20] The "new normal" meant businesses had to quickly adapt their business models, supply chains, and ways to engage consumers or risk going out of business. Many companies retooled to provide products and services needed during the pandemic. For example, Dyson started to build ventilators and medical equipment and LVMH Moët Hennessy Louis Vuitton (LVMH) transformed its perfume production to produce hand sanitizer. Home became the place where we worked, studied, and ordered food, groceries, and other products and services we needed. Video conferencing technology such as Zoom became the way we interacted for work, school, and to socialize with friends and family. Having curfews and stay-at-home orders, wearing masks, washing our hands, and social distancing became the norm.

Economic data show the devastating impact the COVID-19 pandemic has had on the economy.[21] The U.S. economy in 2020 shrank for the first time since 2008. Consumer spending, which accounts for two-thirds of U.S. economic output, slowed to 2.5 percent. Due to the pandemic, the unemployment rate increased from a 50-year low of less than 4 percent in February 2020 to 15 percent—or more than 17 million workers—in April 2020. Job losses in 2020 were the worst since 1939. The hardest hit industries were hotels, restaurants, and related industries, which drove up unemployment among minorities, young, and less educated workers. Jobless claims—a proxy for layoffs—continues its post-pandemic decrease yet 348,000 workers filed for unemployment insurance in mid-August 2021. About 12 million people are receiving some type of unemployment benefits. The labor force participation rate (the share of Americans 16 years or older working or seeking work), which was at its lowest level in 20 years in March 2020, has slightly rebounded to above 61 percent.[22] Overall, the labor force participation rate decreased most significantly for women with children. This is likely because of women taking responsibility to provide child care due to the pandemic closing daycares and forcing school aged children to attend classes online from home.

The U.S. government, workers themselves, and companies all took actions to lessen the impact of the pandemic and prepare for post-pandemic employment. The government passed several pieces of legislation designed to aid workers and businesses. This legislation included increasing unemployment payments and extending unemployment benefits for an additional 13 weeks; providing $350 billion for loans for small business owners to cover expenses and loan forgiveness if they keep employees on payroll during the crisis; tax relief to businesses and individual taxpayers; and unemployment eligibility for independent contractors and the self-employed.[23]

Many workers who were furloughed, had their hours cut during the pandemic, or have been laid off but took a job paying less and requiring fewer skills than their previous position are involved in learning new skills needed for in-demand jobs.[24] For example, the pandemic caused increased demand and opportunities in fields such as cybersecurity, health care, and supply chain management. To learn new skills, workers are using online learning platforms. At LinkedIn Learning, downloads of classes in accounting, project management, and information technology increased more than 600 percent during the pandemic. Enrollment in professional certificate and microdegree programs at EdX, an online learning provider, also increased over six times during the pandemic. Merit America, which provides online training and support for individuals without a college degree, has seen increased demand for classes in technology support, software development, and advanced manufacturing. Microsoft is providing free online classes available to anyone to help train digital skills. The training will help prepare individuals for high demand and paying jobs such as help-desk technician, digital marketing, and data analyst. Companies are also providing opportunities for their workers to learn new skills to help ensure their future employability and economic security.[25] Postmates, the food delivery company, is partnering with EdX to give employees the opportunity to receive free virtual career guidance and access to more than 2,800 online courses. Postmates plans to continue to offer the educational benefit after the pandemic is over.

There has been some promising news that suggests the economy is slowly recovering.[26] The stock market set record highs and continues to climb despite the pandemic. The unemployment rate—dropped to 5.4 percent in July 2021 but remains well-above its February 2020 pre-pandemic level (3.5 percent). However, it remains to be seen if unemployment will return to 3.5 percent. Surveys suggest that some adults can not or are not interested in returning to work due to fears of getting Covid-19, the lack of child care, earning more in unemployment benefits than they would earn in available jobs, and not having the skills for available jobs or unwilling to switch careers. In the recession of 2008, long-term unemployment remained high for many years. Manufacturing, leisure, hospitality, and retail have added back many but not all of employees laid off due to the pandemic. Employment in blue-collar jobs such as construction, package delivery, residential housing, and warehousing is exceeding pre-pandemic levels. In fact, companies are facing a shortage of qualified workers with the skills needed for these jobs. The need for workers with skills for these jobs is due to increased online shopping during the pandemic, which is expected to continue, ramping up of business operation, and low mortgage rates, which are predicted to remain low. To attract and match workers with open jobs, companies are raising pay, touting career opportunities, flexible schedules, increasing the scope of the labor markets they recruit from, and utilizing employment alliances across industries.[27] For example, during the pandemic, companies needed workers in industries including health care, and grocery stores formed alliances with companies in industries such as airlines, hospitality, and retail to recruit workers who had been laid off. The pharmacy store chain Walgreens hired over 6,000 employees from 50 other employers including Kohls, Hilton, Gap, and the Chicago Cubs baseball organization.

The economy is slowly recovering as businesses fully reopen and consumers become more comfortable going out in public. Economic recovery and growth depend on four factors. First, is the vaccine's ability to contain the original virus and its variants. Second is whether consumer spending will increase. Consumer spending may be encouraged by The American Rescue Plan Act, which provides $1.9 trillion including aid to small business, extended unemployment benefits, and stimulus checks to eligible citizens.[28] Also, the economy will benefit if American households decide to spend some of the $1.8 trillion in savings it is estimated they have accumulated due to lack of spending during the pandemic.[29] A key consideration is whether factories can meet anticipated demand and bottlenecks in the supply chain can be smoothed out (you may have experienced the lack of products and empty shelves in many retailers and the difficulties of getting replacement parts). Third, workers need to return to the labor force with the skills needed to fill available jobs. Fourth is the economic impact of recent trade agreements and polices that resulted in tariffs placed on the products in many different industries. To fulfill the promise he made to bring jobs back to the United States, during his presidency Donald Trump renegotiated the North American Free Trade Agreement. He imposed tariffs on imports from China and the European Union.[30] Tariffs can make it easier for American-made goods to compete with cheaper foreign goods. However, the tariffs started a trade war and raised the prices of imports from those countries. President Joe Biden is also trying to keep American jobs from going overseas. In his campaign, he proposed a tax credit for U.S. companies that bring jobs back to the United States and a tax on profits for companies that build factories overseas. The United States and Europe recently agreed to suspend tariffs on products worth $11 billion including those imposed on jetlines, wine, luggage, produce, and other food items.[31] However, Biden is still planning to use tariffs to fight alleged unfair trade practices by China (such as using forced labor) that harm U.S. workers and pressure companies to share cutting-edge technologies.[32] Imposing laws and tariffs to artificially restrict job outsourcing could make U.S. companies less competitive. If they are forced to hire expensive U.S. workers, they would raise prices and increase costs for consumers. However, the relationship between trade, economic growth, and employment is complex, and it is influenced by factors such as currency exchange rates and government spending and taxation. In fact, the United States has had trade deficits during periods of economic expansion and recession, and under high and low employment. If the United States continues to enact tariffs and tough trade policies, other countries may retaliate by placing tariffs on U.S. imports. This could actually hurt and not help U.S. businesses. For

example, U.S. manufacturers and suppliers, food and agribusiness, retailers, technology and technology communications, and footwear have all been negatively impacted by the retaliatory tariffs China placed on U.S. businesses in response to former President Trump's actions.[33] This includes companies such as Rockwell Automation, Johnson Controls, Dollar Tree, Best Buy, Macys, Deere and Company, and Del Monte foods. The tariffs have caused these companies to pass on increased costs to consumers and close plants due to lack of demand as China purchases products from countries who did not impose a tariff. One estimate is that the tariffs imposed by former President Donald Trump have cost American companies $46 billion since 2018, and the exports of goods affected by retaliatory tariffs have fallen sharply.

Globalization

Many companies are involved in international markets by exporting their products overseas, building manufacturing facilities or service centers in other countries, entering into alliances with foreign companies, and engaging in e-commerce. One estimate is that developing economies and emerging markets such as those found in the BRIC nations (Brazil, Russia, India, and China) are responsible for 18 percent of global trade.[34] Other countries such as Indonesia, Malaysia, South Korea, Nigeria, and Poland, which have a growing middle class, strong infrastructure, business-friendly regulations, and stable governments, are likely new emerging markets. It is important to note that global trade and investment has been slowed due to the pandemic, an increase in nationalistic policies around the world such as "Buy American" or "Made in India," concerns about national security threats from purchasing and selling technology, and countries' dependence on others for essential products and resources.[35] Globalization is not going to disappear. But the rate of globalization in the future is likely to depend on how soon the world can resolve the pandemic and the types of trade policies and practices enacted by countries around the world.

The importance of globalization can be seen in the recent hiring patterns of investments U.S. multinational corporations have made in China.[36] China's developed infrastructure and huge consumer market remain an essential market for many companies. General Motors now sells more cars in China than in the United States. In 2019, Tesla realized revenue of almost $3 million in China, an increase of over 69 percent. Due to attractive government incentives coupled with broad demand for electric vehicles in China, Tesla decided to expand its Shanghai factory and realized huge benefits. Yum! Brands, which includes KFC, Pizza Hut, and Taco Bell restaurants, is China's largest fast-food company. Yum! has over 84,000 restaurants in China and is opening about two new stores per day. In fact, 180 million Chinese belong to the KFC and Pizza Hut customer loyalty program! The menu in China is based on local tastes. For example, KFC fried chicken is sold by the piece so it can be part of a meal that includes rice rolls, egg tarts, and lotus soup. Pizza Hut includes the option to add Peking Duck to a pizza. Yum! has opened an innovation center in Shanghai to better understand customer preferences and develop new offerings for the Chinese market. Today, China is Starbucks' second largest and fastest-growing market, with more than 4,200 stores in 177 cities in mainland China, employing more than 57,000 employees.[37] Despite the economic fallout from COVID-19 in China, Starbucks continued to pay its employees there during the crisis, as well as offered mental health and sick day benefits, child care support, and more.

One of the lessons learned due to the pandemic has been the danger of over reliance on China. After the coronavirus was discovered, all factories located in China had to shut down. Some companies, like Hyundai and Fiat Chrysler, had no choice but to cease production outside of China too because they couldn't obtain essential components from China. While COVID-19 has exposed the over reliance of the western world on China, reshoring jobs and factories to the United States comes with huge costs—underdeveloped infrastructure; higher labor, health, and training costs; and more complex government regulations.[38] However, most U.S. companies manufacture in China for the Chinese market. Although there is some shifting of manufacturing away from China, this is mainly to Southeast Asia and India and not back to the United States.

Companies often place successful U.S. managers in charge of overseas operations, but these managers lack the cultural understanding necessary to attract, motivate, and retain talented employees. To cope with these problems, companies are taking actions to better prepare their managers and their families for overseas assignments and to ensure that training and development opportunities are available for global employees. Cross-cultural training prepares employees and their families to understand the culture and norms of the country to which they are being relocated and adjust to their home country after the assignment. Cross-cultural training is discussed in **Chapter Ten**. For example, McDonald's has over 39,000 locations in at least 100 countries.[39] To train future managers in the store operations, leadership, and staff management skills needed for global expansion to be successful, McDonald's has seven Hamburger Universities in the United States and abroad, including campuses in Oak Brook, Illinois; Sydney; Munich; London; Tokyo; São Paulo; and Shanghai. All provide training materials and tools in different languages and cultures. To successfully compete with its Indian rival, Ola, Uber is challenged to recruit and train a million new drivers in India, where most people do not drive or own a car, and few potential drivers understand English or how to use an app.[40] The stakes are huge given the market size: India has 1.2 billion people. Uber has recruited Indians driving taxis, buses, and rickshaws; private drivers working for companies and families; and individuals who have never driven before. To be successful in India, Uber has to teach new drivers how to speak politely, dress well, and follow traffic rules. They have to check to ensure recruits have necessary licenses and other documents, teach them how to use the Uber app, and instruct them in how to use online banking so they can see if they have been paid. Uber also helps drivers lease automobiles.

The pandemic, costs, and changes in countries' employment policies have caused companies to reconsider whether sending employees to work in other countries on a long-term basis is worthwhile.[41] For example, Gulf nations such as Oman and Saudi Arabia and Asian countries prefer to offer employment opportunities to their own citizens. Working overseas is less attractive from a financial perspective for citizens from Australia and the United Kingdom as they have less favorable tax policies than other countries. Also, potential candidates for overseas positions are less enthusiastic about working in more developing countries such as the Philippines and India where the same quality health care may not be available compared to their home country. Despite these issues, global companies will always need employees to work in overseas locations to help grow markets, manage the business, and provide expertise.

Globalization also means that employees working in the United States will come from other countries. Over 40 million people living in the United States were born in other countries, and approximately an equal number have a foreign-born parent. The United States has more immigrants than any other country in the world. More than one million immigrants come to the United States each year, and 6 out of 10 are relatives of U.S. citizens.[42] Immigrants and their descendants are projected to account for 88 percent of U.S. population growth through 2065, assuming current immigration trends continue. The top country of origin for new immigrants coming into the United States is China, followed by India, Mexico, and the Philippines. Nearly half of the nation's immigrants live in California, Texas, or Florida.

Over 75 percent of immigrants are in the United States legally. Mexico, China, and India are the leading countries of birth for lawful permanent residents or "green card" recipients, who may live and work anywhere in the United States. Another 13 percent come on work-related visas, some of which are available only for workers with exceptional qualifications in science, business, or the arts. The U.S. government also provides temporary visas to a limited number of highly educated workers, allowing them to work in the country for a set period of time but not to remain as immigrants.

In 2019, there were 28 million immigrants in the U.S. labor force, comprising 17 percent of the total.[43] Many U.S. industries, including high-technology, meat-packing, construction, farming, and service, rely on immigrants to perform jobs that U.S. citizens find undesirable because they require physical labor or pay low wages. But the percentage of highly skilled immigrants now exceeds the percentage of low-skilled immigrants. One reason is that U.S. colleges cannot keep up with the demand for employees needed for software

development positions and others requiring science, technology, engineering, and math (STEM). To find engineers, companies have to look overseas to China, Japan, Korea, and India to hire them.[44] The H-1B visa program is for persons in highly skilled and technical occupations requiring completion of higher education. New visas are capped at 65,000 per year, 20,000 of which are reserved for employees with U.S. master's degrees. There is no cap on H-1Bs for employees working for the government, universities, and other nonprofit institutions. The largest number of H1-B visas are issued for computer-related occupations such as software development. Top companies for H-1B visas include Infosys Limited, Deloitte Consulting, Tata Consultancy, and IBM.[45] Indian-owned companies such as Tata Consultancy and Wipro have the most H1-B visa approvals. Other visa programs are available for lower-skilled temporary or seasonal workers (H2-A, H2-B) who are also in short supply. Many of these immigrants will have to be trained to understand the U.S. culture. Likewise, U.S. employees will need skills to improve their ability to communicate with employees from different cultures.

There is an ongoing debate in the U.S. government about the role of both legal and illegal immigration in terrorism and the reduction of job opportunities for U.S. citizens. However, survey results suggest a majority of Americans have positive views about immigrants.[46] About two-thirds of Americans say immigrants strengthen the country because of their work ethic and talent, while about a quarter say immigrants burden the country by taking jobs, housing, and health care.

American companies will likely continue to struggling to fill jobs despite the recent expiration of restrictions on work visas that occurred due to pandemic and Trump administration policies.[47] Despite the high unemployment rate because of the pandemic, potential workers are not attracted to the low paying and seasonal jobs typically held by immigrants. Companies that have managed to survive during the pandemic have had to cut back production, reduce hours, or send jobs overseas. For example, jobs in software development or information technology typically would be filled by employees with H1-B visas, but instead they were sent to workers in other countries. The CEO of SevenTablets, an information technology company, wanted to hire software engineers from foreign countries to work in the United States. Because H1-B visas were unavailable, he hired engineers to work from an India-based location of the company. The labor shortage is also affecting resorts and restaurants that rely on seasonal workers to fill jobs. Duck Donuts has several shops in North Carolina's Outer Banks. The owner typically hires about 75 foreign workers to staff the stores during peak demand during the summer months, but he has only been able to hire a few foreign workers. The lack of workers left many of his stores understaffed, and he had to reduce store hours despite a large number of summer customers. Ski resorts in Vermont typically employ both American and foreign workers. But the lack of visas have caused the resorts to close retail, lodging, and restaurants because of insufficient number of staff.

Globalization also means that U.S. companies have to carefully consider the costs and benefits of moving jobs overseas or using foreign suppliers. **Offshoring** refers to the exporting of jobs from developed countries, such as the United States, to countries where labor and other costs are lower. Argentina, Poland, Vietnam, Ukraine, Mexico, and the Philippines are some of the destination countries for offshored jobs. Why are jobs offshored?[48] The reasons given for offshoring factory and other jobs often include lower labor costs and the availability of a skilled workforce with a strong work ethic. For example, Nike has no manufacturing plants of its own but chooses to offshore the work to contractors in the Philippines, Vietnam, China, Indonesia, and Taiwan.[49] There are 500,000 people worldwide involved in the production of Nike footwear. The company's employees maintain stringent quality checks on these factories and Nike realizes cost savings in the process. Their sales revenues are around $3.7 billion. Converse and New Balance have a market share of 3 percent each. For them, their "Made in USA" tag is a critical part of their sales strategy, but due to higher costs, their revenues are approximately $280 million and $260 million respectively. Large pharmaceutical companies are working with overseas contract manufacturers to produce COVID-19 vaccine.[50] BioNTech SE has deals with contract manufacturers in Europe, and Modera is working with Lonza Group AG, a company based in Sweden.

Rather than offshoring work, reshoring or the return of jobs to the United States, is becoming more common. There are several reasons for this, including higher product shipping costs, fear of supply chain disruptions due to natural disasters and political instability, quality concerns, negative publicity, and customer preference for U.S.-made products.[51] Also, rising labor costs in some countries, such as China, are becoming more comparable to those in the United States. Finally, some countries' local standards for safety, health, and working conditions may be substantially lower than those in the United States, resulting in companies receiving negative publicity and turning off potential customers. For example, Zentech, an electronics company, began to notice that the cost of living and wages in China were rising.[52] It also began to receive cheap counterfeit products; a risk most companies live with when manufacturing in foreign nations. With two notable factors, it no longer made sense to have such a long distance between where the products were manufactured and where they were distributed. By transitioning all of its manufacturing to Baltimore, Maryland, the company increased jobs and made a higher quality product. With tens of thousands of manufactured products, Walmart decided to bring over 30 manufacturing plants (mostly in China) back to the United States. As part of its Walmart Initiative, the company's goal is to create over 300,000 jobs and U.S manufactured purchases by 2023.

Apple Inc. is known for introducing revolutionary and functional products such as the iPhone, the Mac Air computer, and the iPad.[53] Apple relies on manufacturing partners in Asia to build its products and has been criticized by labor groups who have challenged how its manufacturing partners in Asia have treated their employees. Apple has taken this criticism seriously and is auditing its suppliers and manufacturing facilities to take steps to reduce, if not eliminate, the illegal and poor treatment of workers who assemble or provide materials for any of its products. Apple's Suppliers Code of Conduct focuses on ensuring that its partners don't hire underage workers, provide adequate training and safe working conditions, and pay fair wages. In 2019, Apple performed over 1,100 supplier assessments in 49 countries. Over 19 million people have been trained in the workforce protections.

Increased Value Placed on Intangible Assets and Human Capital

Training and development can help a company's competitiveness by directly increasing the company's value through contributing to intangible assets. A company's value includes three types of assets that are critical for the company to provide goods and services: financial assets (cash and securities), physical assets (property, plant, equipment), and intangible assets. **Table 1.2** provides examples of intangible assets, which consist of human capital, customer capital, social capital, and intellectual capital. Human capital refers to the sum of the attributes, life experiences, knowledge, inventiveness, energy, and enthusiasm that the company's employees invest in their work.[54] **Intellectual capital** refers to the codified knowledge that exists in a company. **Social capital** refers to relationships among employees in the company. **Customer capital** refers to the value of relationships with persons or other organizations outside the company for accomplishing the goals of the company (e.g., relationships with suppliers, customers, vendors, and government agencies). Intangible assets are equally as valuable as financial and physical assets, but they are not something that can be touched and they are nonmonetary.

Intangible assets have been shown to be responsible for a company's competitive advantage. Several studies show that investments in training and development lead to increases in financial performance, productivity, and innovation.[55] The Association for Talent Development (ATD) found that companies that invested the most in training and development had a shareholder return that was 86 percent higher than companies in the bottom half and 46 percent higher than the market average.[56] Training and development have a direct influence on human and social capital because they affect education, work-related know-how and

TABLE 1.2   Examples of Intangible Assets

Human Capital
- Tacit knowledge
- Education
- Work-related know-how
- Work-related competence

Customer Capital
- Customer relationships
- Brands
- Customer loyalty
- Distribution channels

Social Capital
- Corporate culture
- Management philosophy
- Management practices
- Informal networking systems
- Coaching/mentoring relationships

Intellectual Capital
- Patents
- Copyrights
- Trade secrets
- Intellectual property

Sources: Based on L. Weatherly, *Human Capital—The Elusive Asset* (Alexandria, VA: SHRM Research Quarterly, 2003); E. Holton and S. Naquin, "New Metrics for Employee Development," *Performance Improvement Quarterly* 17 (2004), pp. 56–80; M. Huselid, B. Becker, and R. Beatty, *The Workforce Scorecard* (Boston, MA: Harvard University Press, 2005).

competence, and work relationships. Training and development can have an indirect influence on customer and social capital by helping employees better serve customers and by providing them with the knowledge needed to create patents and intellectual property.

As mentioned earlier in the chapter, intangible assets such as human capital also contribute to a company's competitive advantage because they are difficult to duplicate or imitate.[57] For CPS Energy, the country's largest public natural gas and electric company, teamwork and empowerment are key drivers of high performance. The San Antonio, TX-based utility focuses on "people first," both within the community it serves and for the employees who work for the organization. CPS's customer response unit consists of a dedicated group of workers who regularly visit customers during power outages, not only to restore power but to check in and make sure everyone is doing okay. The team also delivers meals to those in need during the holidays. Within the organization, the people-first mentality is evident in the company's mentorship and learning programs, which include an executive-in-residence program, in which employees spend up to two years working in a business area vastly different from their own and learning about different facets of the energy business. According to the company's CEO, giving employees the flexibility to seek different work experiences helps the entire organization operate at a higher level of performance.[58]

Chapters Seven, **Eight**, and **Nine** discuss specific training and development activities that contribute to the development of human and social capital. How to measure human capital is explained in **Chapter Six**, "Training Evaluation." The value of intangible assets and human capital has two important implications:

1. Employee engagement.
2. An increased emphasis on adapting to change and continuous learning.

Employee Engagement

To fully benefit from employee knowledge requires a management style that focuses on engaging employees. **Employee engagement** refers to the degree to which employees are fully involved in their work and the strength of their commitment to their job and the company.[59] Employees who are engaged in their work and committed to their companies give those companies a competitive advantage, including higher productivity, better customer service, and lower turnover.

Perhaps the best way to understand engagement is to consider how companies measure employee engagement. Companies measure employees' engagement levels with attitude or opinion surveys. Although the types of questions asked on these surveys vary from company to company, research suggests the questions generally measure themes such as pride in the company, satisfaction with the job, prospects for future growth with the company, and opportunity to perform challenging work.[60] How do we know if an employee is engaged? An engaged employee is passionate about his work, is committed to the company and its mission, and works hard to contribute. Engagement survey results show that only 39 percent of U.S. employees are engaged in their work, 47 percent are not engaged, and 14 percent are actively disengaged.[61] Actively disengaged employees cost the United States billions of dollars every year in lost productivity.

United Shore, a wholesale mortgage lending company with approximately 6,000 employees working at locations across the United States, retains more than 90 percent of its employees and 65 percent of all new team members come from referrals by other team members.[62] The company does offer an onsite escape room and incentive programs with the ability to earn gifts such as Cadillacs and cruises to the Bahamas. But the attraction and retention success is because employees know how much the company cares about them, their development, and their success. The company demonstrates this in daily team huddles, continuous improvement training, and monthly one-on-one coaching sessions. Team members average 236 hours of training and coaching from their trainers and leaders. The company investment in training and development helps employees progress in their careers (last year the company had almost 1,200 promotions).

Emphasis on Change and Continuous Learning

Change refers to the adoption of a new idea or behavior by a company. Change is due to companies experiencing volatility, uncertainty, complexity, and ambiguity (VUCA). Technological advances, changes in the workforce or government regulations, globalization, new competitors, and crises such as the COVID-19 pandemic, are among the many factors that contribute to VUCA.[63] VUCA requires employees to adapt to change often through acquiring new skills. For example, companies in financial services are experiencing VUCA due to changes including increasing providing customers with digital services such as mobile banking and the increased use of cryptocurrency.[64] Capital One, the financial services company, has implemented processes that automate employees' work. This requires employees to change from skills in transactional tasks to being more process-focused and problem solvers. They also need to acquire new knowledge necessary to understand machine learning and artificial intelligence because it was being integrated into all aspects of the company's operations. The characteristics of an effective change process are discussed in **Chapter Two**, "Strategic Training."

A changing environment means that all employees must embrace a philosophy of learning. A **learning organization** embraces a culture of lifelong learning, enabling all employees to acquire and share knowledge continually. Improvements in product or service quality do not stop when formal training is completed.[65] Employees must have financial, time, and content resources (such as courses, experiences, and development opportunities) available to increase their knowledge. Managers take an active role in identifying training needs and helping to ensure that employees use training in their work. Employees are actively encouraged to access learning resources and share knowledge with colleagues and other work groups across the company using discussion boards and social networking apps.[66] For example, AbbVie, the pharmaceutical company, wants to create a development-focused company because the scientists it employs are motivated to learn.[67] To drive performance and facilitate learning and development, the company's talent development professionals created Lean.Develop.Perform. (LDP). LDP is an annual weeklong series of live, interactive webinars for all employees. Topics focus on areas such as why careers fail, influential leadership, and feedback. The host of each webinar asks a company leader questions related to their own personal development and about the specific topic. Each session concludes with questions and answers. More than half of AbbVie's employees voluntarily participated in the program. The webinars are recorded, tagged, and made available to employees who could not attend them live or want to watch them again. Employees can easily search for and access related articles, development guides, podcasts, and other content related to each topic. This provides a learning resource that employees can access on an as-needed basis. Employees are very interested in the storytelling format and appreciate how easy it is to retrieve the webinars and supporting materials. AbbVie continues to provide new webinars and distributes e-mail reminders and information about registering to maintain employees' awareness of the learning events. To support the program, company leaders actively promote the webinars and host their own viewing parties. **Chapter Five**, "Program Design," discusses learning organizations and knowledge management in detail. For a learning organization to be successful, teams of employees must collaborate to meet customer needs. Managers need to empower employees to access learning resources, share knowledge, identify problems, and make decisions, which allows the company to experiment and improve continuously.

Focus on Link to Business Strategy

Given the important role that intangible assets and human capital play in a company's competitiveness, managers are beginning to see a more important role for training and development as a means to support a company's business strategy—that is, its plans for meeting broad goals such as profitability, market share, and quality. Managers expect training and development professionals to design and develop learning activities that will help the company successfully implement its strategy and reach business goals.

For example, the business success of Pal's Sudden Service, a regional fast-food chain, is built on speed, accuracy, and talent.[68] Pal's offers only takeout (no sit-down meals) at nearly 30 locations, building a reputation for tasty burgers, fries, and shakes delivered quickly. Customers place their order with an employee at a drive-up window and then go to another window on the other side of the building where a different employee hands customers their meals. Customers get exactly what they ordered because employees hand out the wrong food only once in every 3,600 orders (an error rate 10 times better than the average fast-food restaurant). Pal's accomplishes its speedy and error-free service by focus on training and measuring talent. First, the company targets character in hiring; it uses a homegrown, 60-question assessment based on successful team members' attitudes and personality traits. Those who fit the culture get hired and immediately enter 120 hours of training, and new hires must be certified for each job they'll perform before they can work alone. But at Pals training never ends. At every restaurant, every day, on every shift, a computer randomly selects up to four employees to take a recertification quiz on the skills required for one of their jobs. If the worker fails the quiz, they are required to retake training. Strategic training is discussed in greater detail in **Chapter Two**.

Changing Demographics and Diversity of the Workforce

In the United States the Bureau of Labor Statistics (BLS), an agency of the Department of Labor, tracks changes in the composition of the U.S. labor force and forecasts trends. Companies face several challenges as a result of increased demographics and diversity of the workforce. Population is the single most important factor in determining the size and composition of the labor force, which is composed of people who are either working or looking for work. The civilian labor force is projected to increase by 18 million between 2019 and 2029, reaching close to 171 million by 2029.[69]

Increase in Ethnic and Racial Diversity

Between 2019 and 2029, the U.S. labor force will continue to grow more ethnically and racially diverse due to immigration, increased participation of minorities in the workforce, and higher minority fertility rates. Between 2019 and 2029, the projected annual growth rates are higher for Hispanics (2.2 percent) than for Blacks and all other groups.[70] By 2029, the workforce is projected to be 75 percent white, 13 percent Black, and 12 percent Asian and all other ethnic groups. Twenty-one percent of the labor force will consist of individuals with an Hispanic origin. By 2029, 52 percent of the labor force will be men and 48 percent will be women. Not only must companies face the issues of race, gender, ethnicity, and nationality to provide a fair workplace, but they must also develop training programs to help immigrants acquire the technical and customer service skills required in a service economy.

Aging Workforce

Figure 1.3 compares the projected distribution of the age of the workforce in 2019 and 2029. In 2019, baby boomers will be 58 to 71 years old, and this age group will grow significantly by 2029. The labor force will continue to age. The 55-and-older age group is expected to grow by approximately 5 million to 43 million in 2029, representing a 13 percent increase between 2019 and 2029.[71] By 2029, all baby boomers will be 65 or older. As a result, a large number of them will have moved out of the labor force. However, many will continue to work more years because individuals are leading healthier and longer lives than in the past, providing the opportunity to work more years. In addition, the high cost of health insurance and decrease in health benefits will cause many employees to keep working to maintain their employer-based insurance or will prompt them to return to work after retirement to obtain health insurance through their employer. Also, the trend toward pension plans based on individuals' contributions rather than years of service will provide yet another incentive for older employees to continue working.

The aging population means that companies are likely to employ a growing share of older workers—many of them in their second or third careers. Older people want to work, and many say they plan a "working retirement." Despite myths to the contrary, worker performance and learning in most jobs is not adversely affected by aging.[72] Older employees are willing and able to learn new technology. An emerging trend is for qualified older employees to ask to work part-time, or for only a few months at a time, as a means of transitioning to retirement. Employees and companies are redefining what it means to be retired to include second careers, as well as part-time and temporary work assignments.

Generational Differences: Fiction Not Fact?

Popular press suggests that five generations are represented in the workforce; each one may have unique and similar characteristics to the others. In **Table 1.3**, the year born, nicknames, and ages of each generation are shown. Consider some of the attributes that have been suggested to characterize each generation.[73] For example, Gen Z are supposedly more attached to mobile phones and tablets for learning and connecting with others than are millennials. Baby boomers, the "Me" generation, are characterized as being competitive, hardworking, and concerned with the fair treatment of all employees.

FIGURE 1.3 **Comparison of the Age of the 2019 and 2029 Labor Force**

2019

2029

- 16 to 24 years old
- 25 to 54 years old
- 55 years and older
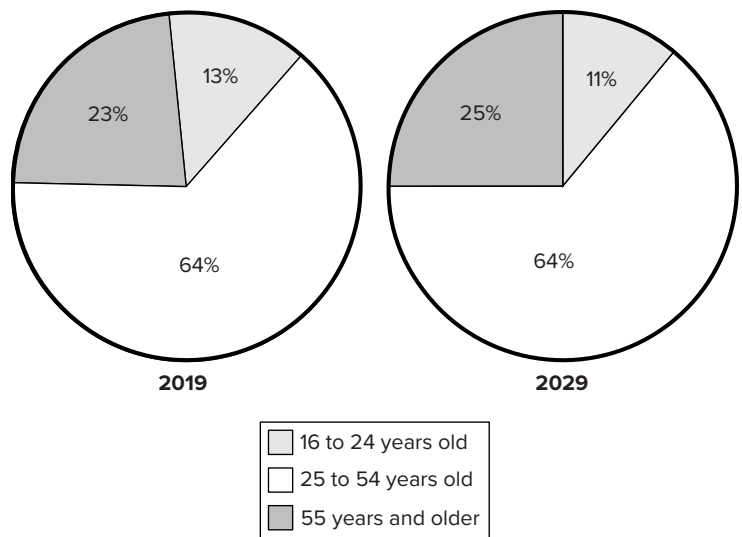
Sources: Based on U.S. Bureau of Labor Statistics, "Employment Projections, Civilian Labor Force, by Age, Sex, Race, and Ethnicity," from www.bls.gov/emp/tables/civilian-labor-force-summary.htm, accessed February 13, 2021.

TABLE 1.3 **Generations in the Workforce**

Year Born	Generation	Ages
1925–45	Traditionalists	>76
1946–64	Baby boomers	57–75
1965–80	Generation X	41–56
1981–95	Millennials	26–40
1996–	Generation Z	<25

It is important to note that research does not support the existence of generational differences. That is, generational differences are more fiction than fact.[74] Members of the same generation are no more alike than members of the same gender or race. Also, research suggests that employees from different generations likely have more similarities than differences.[75] This means that you should not attribute differences in employee behaviors and attitudes to generational differences or expect all employees of a generation to have similar values, interests, or preferences (e.g., about what training method they want to use to learn). It is important to understand the needs, experiences, and preferences of learners but that should be based on an audience analysis (discussed in **Chapter Five**) rather than erroneous assumptions about generational differences.

Benefitting from Diversity, Equity, and Inclusion

The death of George Floyd, #MeToo, the Black Lives Matter movement, verbal and physical attacks against Asian-Americans, the multigenerational workforce, and the COVID-19 pandemic has intensified the attention to issues of diversity, equity, and inclusion in U.S. companies. What do diversity, equity, and inclusion

mean?[76] **Diversity** can be considered any dimension that differentiates one person from another. For example, at Verizon, diversity means embracing differences and variety, including age, ethnicity, education, sexual orientation, work style, race, gender, and more. **Equity** refers to fair treatment, access, equality of opportunity, and advancement for all employees, while at the same time striving to identify and eliminate barriers that have prevented the full participation of some groups. **Inclusion** refers to creating an environment in which employees share a sense of belonging, mutual respect, and a commitment to others so they can perform their best work. Inclusion allows companies to capitalize on the diversity of employees as well as the diversity of customers, suppliers, and community partners. In an inclusive environment, employees feel safe to share their identities and to understand and ask about others' experiences of inequality. Company leaders in an inclusive company point out instances of inequality, explain their impact, and emphasize the changes that need to occur. They also demonstrate and recognize inclusionary behaviors in both their peers and other employees. Diversity, equity, and inclusion can help companies gain a competitive advantage. Important outcomes expected from diversity practices include improved public image of the company, improved financial bottom line, decreased complaints and litigation, and retention and recruitment of a diverse workforce.[77]

Consider the programs that Hershey and Goldman Sachs are offering to capitalize on diversity, equity, and inclusion.[78] Hershey developed a program called Abilities First for workers in manufacturing who have disabilities. It emphasizes equal pay, equal work, and equal expectations. One of the company's greatest successes has been converting many production lines to accommodate deaf workers. Supervisors and managers have been trained in sign language, and machines that were outfitted with bells and buzzers were adapted to use colored lights instead. Goldman Sachs Women's Career Strategies Initiative, Black Analyst and Associate Initiative, and Hispanic and Latino Analyst Initiative work to ensure a supportive environment by focusing on the networking and development opportunities for women and minority employees.

TD Bank Group is one company that is invested in managing its diverse workforce.[79] TD Bank employs every generation in its workforce of 85,000 employees consisting of 30,000 from the United States. TD Bank has a continuous learning culture that provides different ways of learning to meet employees' generational needs. To ensure all employees have the skills they need now and in the future, TD Bank focuses on general skills that all employees need, foundational skills in topics such as analytics and operational excellence, and targeted skills depending on employees' positions such as advanced analytics and digital marketing. TD Bank invests in inclusive leadership training for all of its people leaders to minimize the risk of unintentional bias. The training focuses on people leaders understanding their own inclusive behaviors and personal biases, the impact of their biases on others, and how to create an inclusive environment for all employees. Diversity and Inclusion (D&I) is emphasized in many learning programs. For example, the topic is covered in new employee onboarding. All employees are required to take a course called D&I at TD, which discusses how to be an effective employee, team leader, and company leader. TD also has "respectful workplace" training that helps employees understand how to create and maintain a work environment that doesn't include harassment or discrimination. It also reviews what employees should do if they see such behavior (such as report to their manager, HR, or the company's ethics hotline). The interview training for people leaders who recruit new employees emphasizes how to conduct inclusive recruiting.

In addition to training, TD engages in other practices to enhance diversity and inclusion. All people leaders' performance evaluations include diversity and inclusion performance goals, the company includes questions related to diversity and inclusion in its engagement survey, and checks are made to ensure that diverse candidates are included in hiring polls and considered in succession planning meetings used to identify current employees with leadership potential. TD's Women in Leadership network gives its female employees the chance to connect, encourage, and mentor each other. TD offers flexible work options to help employees achieve work-life balance. Lesbian, Gay, Bisexual, Transgender and Ally (LGBTA) resource groups enable employees to get involved in awareness and education, recruitment, mentoring, and community outreach for the LGBTA community. For employees with disabilities, TD tests new technology and partners with

employees to ensure that they are comfortable with their accommodations. TD has an employee assistance program that helps veterans and their families move into civilian life and a leave program for its employees fulfilling military service obligations.

Although many U.S. companies have committed themselves to recognizing the diversity of their internal labor force, ensuring equity and inclusion, and using it to gain competitive advantage, some workers believe there is more work to be done, particularly those in underrepresented groups such as women, racial and ethnic minorities, and LGBTQ employees. Consider the results of several surveys.[80] In a global survey conducted by Boston Consulting Group, nearly 75 percent of individuals in these underrepresented groups said they do not believe they have personally benefited from their companies' diversity and inclusion programs. In another diversity and inclusion study conducted for Glassdoor, 60 percent of employees surveyed said they witnessed or experienced discrimination based on age, race, gender, or LGBTQ identity in the workplace. A survey by PricewaterhouseCoopers found that one-third of employees agree that diversity is a barrier to progression at their company. Diversity and inclusion will continue to be important topics that need to be discussed and addressed.

We will discuss diversity training, unconscious bias managing diversity, capitalizing on older workers skills and accommodating their needs, and providing training and development opportunities that appeal to a multigenerational workforce in more detail in **Chapter Ten**.

Talent Management

Talent management refers to the systematic, planned, and strategic effort by a company to use bundles of human resource management practices, including acquiring and assessing employees, learning and development, performance management, and compensation, to attract, retain, develop, and motivate highly skilled employees and managers. Talent management is becoming increasingly more important because of changes in demand for certain occupations and jobs, new skill requirements, the anticipated retirement of the baby boomer generation, and the need to develop knowledge workers and the managerial talent and skills of the next generation of company leaders. Also, the results of surveys suggest that opportunities for career growth, learning, and development and the performance of exciting and challenging work are some of the most important factors in determining employees' engagement and commitment to their current employer.[81]

Hitachi Vantara is an information technology company that provides hardware, software, and services to its clients.[82] Its mission is to recruit, hire, develop, and retain the best talent by building the skills and knowledge of its employees, partners, and customers. It needs to continue to do so as cloud computing, artificial intelligence, and the Internet of Things continue to shape information technology products and services. Hitachi encourages lifelong learning through offering courses to technical and sales employees to help them grow personally and professionally by earning certifications in the skills they need. Hitachi also provides customers and partners with technical product training, professional and leadership skills development programs, new hire boot camps, and access to virtual software and hardware labs.

Consider the importance and challenge of talent management for manufacturing companies trying to increase the supply of COVID-19 vaccines.[83] The pandemic has highlighted the war for talent as companies involved in producing vaccines have thousands of job openings but were competing for a limited number of workers who have pharmaceutical manufacturing or bio-tech degrees or willing to work overnight shifts on production lines. The CEO and senior executive of Emergent BioSolutions Inc., a COVID-19 vaccine subcontractor, tried to recruit potential hires at a virtual career fair. They were able to attract some employees to join the company. However, the company still needed to fill hundreds of positions including warehouse associates, quality assurance analysts, and a supply-chain management director. Catalent Inc. ran recruiting ads on Pandora to reach potential employees who live close to its manufacturing plants. They offered $3,000

bonuses to workers willing to work overnight shifts. Avid Bioservices expects to recruit 40 new employees. The new employees require 6 months of training focused on the company's manufacturing process and how it helps its clients.

Changes in Demand for Occupations and Jobs

Approximately 46.5 million job openings are expected, with more than three-fourths resulting from the need to replace workers who retire or leave an occupation.[84] Most new jobs added between 2019 and 2029 will be in service-providing occupations, particularly health care and social assistance. The occupations with the most new jobs projected between 2019 and 2029 include home health and personal care aids, software developers and software quality assurance analysts and testers, fast-food and counter workers, registered nurses, and restaurant cooks. Health care support occupations are projected to be the fastest-growing occupational groups and contribute the most new jobs (one out of four new jobs) from 2019 to 2029. From 2019 to 2029, employment in goods-producing occupations is expected to decline.

Table 1.4 shows 10 of the 30 fastest-growing occupations projected between 2019 and 2029. Of the 30 fastest-growing occupations, 13 are related to health care and related occupations (such as home health care aid, personal care aids, physician assistants, and nurse practitioners). Other occupations in the top 30 are energy-related or computer and information technology occupations. The growth in health care reflects the inpatient and outpatient medical care that is needed for the aging U.S. population. Computer and math-related occupations are expected to see job growth as the demand increases for cybersecurity, software to operate mobile and other technologies, and increased use of data-based decision making. The expected increase demand for alternative energy sources such as solar and wind will drive growth for energy occupations.

Skill Requirements

Several studies illustrate how jobs are changing, the influence this is having on skill requirements, and the difficulty companies are having finding qualified workers.[85] Skills shortages are occurring in manufacturing and service jobs and are expected to continue into the future. One estimate is that there will be 4.6 million U.S. manufacturing jobs, ranging from technician to researcher, to fill by 2028. But 2.4 million of them will go unfilled because of a shortage in skilled workers. One reason for this is the increased use of advanced technology to automate tasks and digital tools in work processes. The pace of adoption of advanced technology and digital tools was accelerated by the pandemic. Fifty percent of the manufacturers in the study have adopted technologies such as robots, machine learning, and artificial intelligence (AI). This has created a mismatch between the available workers and the skills necessary to fill open jobs. Manufacturing executives reported the skill sets they need now and in the future are technology/computer skills, digital skills, programming skills for robots/automation, and skills working with tools and technology. These skills are considered part of STEM skills, which are in short supply. **STEM skills** refer to skills in science, technology, engineering, and math. One estimate is that manufacturers spent at least $26 billion in 2019 on training programs for new and existing manufacturing employees to combat the skills gap. In addition to STEM skills, workers need to develop skills necessary to work together with technology or to perform jobs that are uniquely human and cannot be replaced with technology. These skills include critical thinking, creativity and originality, attention to detail, problem-solving, working with others, and self-management skills (such as active learning, resilience, stress tolerance, and flexibility).

Skill shortages are also occurring in three service industries that together employ almost one-third of all U.S. workers: retail; health and social assistance; and leisure and hospitality.[86] Roughly 6 in 10 service-sector workers in high-demand industries have only limited literacy skills. Limited skill levels are even more common in the areas of numeracy (understanding and working with numbers) and digital problem solving. Despite the workers' limited skills, jobs in these industries require them to use these skills. In fact, the demand for

TABLE 1.4   Examples of the Fastest-Growing Occupations

Employment Change 2019–2029				
Occupation	Number (rounded to nearest thousands)	Percent (%)	Most Significant Education or Training	Median Annual Wages, May 2019
Wind turbine service technicians	4	61%	Post secondary non degree; Long-term on the job training	$52,900
Nurse practitioners	111	57	Master's degree	109,820
Solar photovoltalic installers	6	35	High school diploma or equivalent; Short-term, on-the-job training	44,890
Statisticians	15	35	Master's degree equivalent	91,160
Occupational therapy assistants	16	34	Associate's degree	61,510
Home health and personal care aids	1159	33	High school diploma or equivalent; Short-term	25,280
Physical therapy assistants	32	34	Associate's degree	58,790
Medical and health services managers	133	32	Bachelor's degree	100,980
Physician assistants	39	31	Master's degree	112,260
Information security analysts	41	31	Bachelor's degree	99,730

Sources: Based on Bureau of Labor Statistics, U.S. Department of Labor, "Employment Projections: 2019-2029" (September 20, 2020), from www.bls.gov/emp.

low-skill jobs is low; about half of the jobs being filled require moderate skills—equivalent to education beyond high school but not a college degree. Many are expected to read directions and write e-mail, for example.

This shortage of qualified workers means that employers are faced with the undesirable option of leaving jobs unfilled, which can limit their production and growth. This also means the market for knowledge workers who have in-demand skills is much more competitive. **Knowledge workers** are employees who contribute to the company not through manual labor, but through what they know, perhaps about customers or a specialized body of knowledge. Rather than leaving jobs unfilled or trying to aggressively compete for knowledge workers, a more plausible option that many companies are choosing is to hire employees who lack the complete skill set needed for the job, relying on training to develop the skills. For example, CareHere will pay for certifications or training to close a skill gap for an in-demand job.[87] The company recently took over a facility and wanted to continue to employ some of the licensed practical nurses, though it needed them to become registered nurses. So CareHere paid for their training, which cost almost $14,000 per person for tuition, books, and certification fees. The firm adjusted the nurses' schedules so they could complete their classwork.

To prepare employees with the skills they need and foster the development of knowledge workers, companies are getting involved in training partnerships with local, federal- and state-sponsored funded organizations. The Hershey Company has experienced difficulty trying to fill maintenance and manufacturing roles at its plant in Virginia.[88] So it decided to partner with the Shenandoah Valley Workforce Development Board, which works with local high schools to encourage young people to seek careers in manufacturing and develop a future workforce. The facility offers a two-week, paid boot camp to attract high school seniors, individuals from the Wilson Workforce Rehabilitation Center, and other people in the local community who have no manufacturing experience and want to see what working in a manufacturing environment is like. Thirty-six people applied for the boot camp and 15 were accepted. Graduates of the program are considered for full-time jobs. Tesla has two partnerships with community colleges to train individuals to assemble and service electric vehicles.[89] Google has partnerships with 25 community colleges across the United States as well as other companies including Walmart, Hulu, and Sprint to develop an information technology support professional certificate that students can earn in 8 months.

Some companies are relying on training of hard-to-employ individuals to provide the skills they need to fill open positions. Cisco hired NPower, a nonprofit organization, to recruit and train their potential hires.[90] The nonprofit recruits young adults, women, and veterans from jobs in high-poverty, high-crime areas, and trains them in 6 months to fill tech vacancy roles. More than 80 percent of graduates are employed full time or enrolled in higher education within one year of completing the 6-month tech training program.

Developing Leadership

Companies report that the most important talent management challenges they face are identifying employees with managerial talent and training and developing them for managerial positions.[91] This is attributed to the aging of the workforce, globalization, and the need for managers to contribute to employee engagement. Executive, administrative, and managerial occupations will experience the greatest turnover due to death or retirement.[92] Also, many companies do not have employees with the necessary competencies to manage in a global economy.[93] To successfully manage in a global economy, managers need to be self-aware and be able to build international teams, create global management and marketing practices, and interact and manage employees from different cultural backgrounds. Managers contribute to employee engagement by performing basic management functions (planning, organizing, controlling, and leading) but also through using good communication skills, helping employees develop, and working collaboratively with employees.

PepsiCo's Leadership Assessment & Development (LeAD) program is customized for early career employees, midcareer employees, and senior executives.[94] All three programs include tools to identify, assess, and give participants feedback on their level of competencies in growth, relationships, execution, agility, and thinking. The results are used to provide individual development plans for each participant. This information is used to identify less experienced employees with the best potential, place midcareer employees in appropriate development roles, and ensure talented senior executives are considered in the succession planning process. All LeAD participants indicated they were highly engaged, had a better understanding of their careers, and felt supported by the company.

Customer Service and Quality Emphasis

A company's customers judge its quality and performance. As a result, customer excellence requires attention to product and service features, as well as to interactions with customers. Customer-driven excellence includes understanding what the customer wants, anticipating future needs, reducing defects and errors, meeting specifications, and reducing complaints. How the company recovers from defects and errors is also important for retaining and attracting customers.

Due to the increased availability of information and competition, consumers are very knowledgeable and expect excellent service. This presents a challenge for employees who interact with customers. The way in which clerks, sales staff, front-desk personnel, and service providers interact with customers influences a company's reputation and financial performance. Employees need product knowledge and service skills, and they need to be clear about the types of decisions they can make when dealing with customers. Customer service as a strategic training and development initiative is discussed in **Chapter Two**.

To compete in today's economy, whether on a local or global level, companies need to provide a quality product or service. If companies do not adhere to quality standards, their ability to sell their product or service to vendors, suppliers, or customers will be restricted. Some countries even have quality standards that companies must meet to conduct business there. **Total Quality Management (TQM)** is a companywide effort to continuously improve the ways in which people, machines, and systems accomplish work.[95] Core values of TQM include the following:[96]

- Methods and processes are designed to meet the needs of internal and external customers.
- Every employee in the company receives training in quality.
- Quality is built into a product or service so that errors are prevented from occurring rather than being detected and corrected.
- The company promotes cooperation with vendors, suppliers, and customers to improve quality and hold down costs.
- Managers measure progress with feedback based on data.

There is no universal definition of quality. The major differences in its various definitions relate to whether the customer, product, or manufacturing process is emphasized. For example, consider the different emphasis of quality experts W. Edwards Deming and Phillip Crosby. Deming emphasizes how well a product or service meets customer needs. Crosby's approach emphasizes how well the service or manufacturing process meets engineering standards.

The emphasis on quality is seen in the establishment of the **Malcolm Baldrige National Quality Award** and the **ISO 9000:2000** quality standards. The Baldrige award, created by public law, is the highest level of national recognition for quality that a U.S. company can receive. The award is given annually. To become eligible for the Baldrige, a company must complete a detailed application that consists of basic information about the firm and an in-depth presentation of how it addresses specific criteria related to quality improvement. The categories and point values for the Baldrige Award are found in **Table 1.5**. The award is not given for specific products or services. Organizations can compete for the Baldrige Award in one of several categories, including manufacturing, service, small business, education, health care, and nonprofit. The Baldrige Award is given annually in each of the categories, with a total limit each year of 18 awards. All applicants for the Baldrige Award undergo a rigorous examination process that takes from 300 to 1,000 hours. Applications are reviewed by an independent board of about 400 examiners who come primarily from the private sector. Each applicant receives a report citing company strengths and opportunities for improvement.

The Baldrige Award winners usually excel at human resource practices, including training and development. For example, consider The Center for Organ Recovery & Education (CORE).[97] CORE's mission "to save and heal lives through donation" drives the culture, as the staff works to encourage and maximize every possible life-saving donation across three states. CORE is an industry leader for having its laboratory do infectious disease testing and biopsies in-house, allowing pathologists to review samples remotely by computer. This has shortened recovery-to-transplant time on life-saving organs. CORE's processes for donor evaluation and organ/tissue recovery have significantly reduced costs for processing kidney, liver, heart, single lung, double lungs, and heart/lung organ compared to other hospitals and peer organ recovery organizations. CORE's customer surveys of donor families, transplant centers, corneal transplant surgeons, and tissue processors

TABLE 1.5   Categories and Point Values for the Malcolm Baldrige National Quality Award Examination

Leadership	**120**
The way senior executives create and sustain vision, values, and mission; promote legal and ethical behavior; create a sustainable company; and communicate with and engage the workforce	
Measurement, Analysis, and Knowledge Management	**90**
The way the company selects, gathers, analyzes, manages, and improves its data, information, and knowledge assets	
Strategic Planning	**85**
The way the company sets strategic direction, how it determines action plans, how it changes strategy and action plans if required, and how it measures progress	
Workforce Focus	**85**
Company's efforts to develop and utilize the workforce to achieve high performance; how the company engages, manages, and develops the potential of the workforce in alignment with company goals	
Operations Focus	**85**
Design, management, and improvement of work systems and work processes to deliver customer value and achieve company success and sustainability	
Results	**450**
Company's performance and improvement in key business areas (product, service, and supply quality; productivity; and operational effectiveness and related financial indicators)	
Customer Focus	**85**
Company's knowledge of the customer, customer service systems, current and potential customer concerns, customer satisfaction and engagement	
Total Points	**1,000**

Source: Based on National Institute of Standards and Technology (NIST), "2021–2022 Baldrige Excellence Framework" from the website for the National Institute of Standards and Technology (December 2020), https://www.nist.gov/news-events/news/2020/12/2021-2022-baldrige-excellence-framework-businessnonprofit-now-available.

show satisfaction levels above 90 percent. CORE's satisfaction survey results are in the top 25 percent of comparison health care organizations. Employees believe they are connected to the organizations mission, receive competitive benefits and salary, and have positive peer relationships. CORE's commitment to training and development has contributed to its positive results for donors, recipients, and its employees. All employees must participate in at least 10 hours of professional development per year. This goal has been met and exceeded for the past four years. On average, CORE employees complete 12 to 13 hours of professional development annually. In five years, CORE doubled its investment in professional development costs for its workforce, from less than $60,000 in 2014 to more than $120,000 in 2019. This investment includes supporting employees to attend conferences to obtain education and network with other professionals. Additionally, the human resources department uses a forecasting model to maintain optimal workforce skills and capacity.

The International Organization for Standardization (ISO), a network of national standards institutes that includes 160 countries and has a central governing body in Geneva, Switzerland, is the world's largest developer and publisher of international standards.[98] The ISO develops standards related to management as

well as a wide variety of other areas, including education, music, ships, and even protecting children. ISO standards are voluntary, though countries may decide to adopt ISO standards in their regulations, in which case they may become a requirement to compete in the market. The ISO 9000 is a family of standards related to quality (ISO 9000, ISO 9001, ISO 9004, and ISO 19011). The ISO 9000 quality standards address what the company does to meet regulatory requirements and the customer's quality requirements while striving to improve customer satisfaction and continuous improvement. The standards represent an international consensus on quality management practices. The quality management standards of the ISO 9000 are based on eight quality management principles, including customer focus, leadership, employee engagement, a process approach, a systems approach to management, continuous improvement, evidence-based decision making, and the establishment of mutually beneficial relationships with suppliers. ISO 9001:2015 is the most comprehensive standard because it provides a set of requirements for a quality management system for all organizations, both private and public. The ISO 9000:2015 has been implemented by more than 1 million organizations in 176 countries, meaning that companies have to follow the standards to conduct business in those countries. ISO 9004 provides a guide for companies that want to improve.

Why are standards useful? Customers may want to check that the product they ordered from a supplier meets the purpose for which it is required. One of the most efficient ways to do this is when the specifications of the product have been defined in an international standard. That way, both supplier and customer are on the same wavelength, even if they are based in different countries, because they are both using the same references. Today, many products require testing for conformance with specifications, compliance with safety, or other regulations before they can be put on many markets. Even simpler products may require supporting technical documentation that includes test data. With so much trade taking place across borders, it is more practical for these activities to be carried out not by suppliers and customers, but by specialized third parties. In addition, national legislation may require such testing to be carried out by independent bodies, particularly when the products concerned have health or environmental implications. One example of an ISO standard is the International Standard Book Number (ISBN) on the back cover of every book. Publishers and booksellers are very familiar with ISBN numbers, since these numbers are the method through which books are ordered and bought. Try buying a book on the Internet, and you will soon learn the value of the ISBN number—there is a unique number for the book you want.

In addition to competing for quality awards and seeking ISO certification, many companies are using the Six Sigma process. The **Six Sigma process** refers to a process of measuring, analyzing, improving, and then controlling processes once they have been brought within the narrow Six Sigma quality tolerances or standards. The objective of Six Sigma is to create a total business focus on serving the customer; that is, to deliver what customers really want when they want it. Training is an important part of the process. Employees trained in Six Sigma receive different color belts such as Black Belts. The color of the belt signifies their level of expertise. Walmart uses Black Belt training in its fresh food departments.[99] The program is designed to eliminate product waste, reward excellence, retain talent, and develop a future leaders in the fresh food department. New employees attend a mandatory white belt certification. After completing the program, employees can attend training to gain orange, blue, and black belt (the highest level). Each belt requires coursework and gives employees more accountability and expertise. Each belt achieved results in more pay for employees. So far, 97 percent of new employees have completed white belt training, and over 40 percent have finished the first part of orange belt training. Meat department employees saved an estimated $93,000 per year by producing less waste from faulty cuts.

Training can help companies meet the quality challenge by teaching employees a concept known as "lean thinking." **Lean thinking** is a way to do more with less effort, equipment, space, and time, but still provide customers with what they need and want. Part of lean thinking includes training workers in new skills or teaching them how to apply old skills in new ways so they can quickly take over new responsibilities or use new skills to help fill customer orders. Baylor Health Care System wanted to decrease waste and improve

patient satisfaction and outcomes through implementing lean thinking and process improvements in several of its hospitals.[100] This included training employees in how to make changes to work processes. Lean thinking and process improvement supported by training provided significant value. For example, The Corporate Supply Management team eliminated two-thirds of the time required for completing contracts, developed a decision tree for different types of projects, and reduced errors, saving $10 million. A hospital readmission team redesigned the patient discharge process to reduce the chances of patients returning within 30 days. They realized a 44 percent decrease in readmissions over a 6-month period, which improved the quality of life for patients and Baylor's ability to receive Medicare/Medicaid payments from the government.

ISO 10015:2019 are quality management guidelines detailing how to establish, implement, maintain, and insure training and development systems help employees' obtain the knowledge and skills they need to perform effectively.[101] The guidelines emphasize the Plan, Do, Check, Act cyclical model of continuous improvement. The Plan, Do, Check, Act model includes the steps included in instructional system design discussed earlier in this chapter. Plan involves identifying knowledge and skill gaps. Do focuses on designing training and development activities to narrow the gaps. Check emphasizes monitoring and evaluating the activities to insure they are effective in narrowing the knowledge or skill gap. Act includes identifying other areas of training and development needs and improving current activities.

New Technology

Technology shapes the way we play, communicate, purchase products and services, plan our lives, and work. Consider that in the United States, one estimate is that 94 percent of adults reported having Internet access in 2019.[102] Globally that number drops to 56 percent of adults. There are twice as many households with a computer per 100 people in developed countries, compared to those in developing nations. Survey results show that during the pandemic, we used technology to engage in activities and connect in ways we previously did face-to-face. For example, we attended virtual parties or social gatherings (32 percent), ordered food online (32 percent), watched a play or concert (20 percent), and participated in an online fitness class (18 percent).[103]

Influence on Training

The most important implication of technology for training is that it has facilitated the development of digital learning.[104] **Digital learning** refers to learning that can occur daily in the work setting using devices such as smartphones, tablets, and computers. It can help employees solve problems and communicate and collaborate with peers. Digital learning can be enabled by the company when it provides access to specific learning activities such as courses, videos, or discussion boards. But digital learning can also occur spontaneously when employees search the Internet, search for videos on YouTube, or interact with others on social media. Digital learning can involve employees accessing content that was prepared by a company's training team. However, digital learning gives employees the opportunity to control learning. Employees are self-directed learners. That is, employees can create and share content, gain knowledge, and use search engines to identify sites that can help them acquire knowledge and skills or solve problems. Employees can learn whenever and wherever on their own time and pace.

Companies are embracing digital learning because it allows them to create a workplace where employees can engage in continuous learning focused on upskilling and reskilling. **Upskilling** refers to employees improving or expanding their current skills. **Reskilling** refers to employees acquiring new knowledge or skills. Upskilling and reskilling are important for employees growth and employability. Upskill and reskilling are also necessary for companies to stay competitive through adapting to change and more quickly offering new products and

services. For digital learning to be effective, learning resources should be available to employees on-demand; learning content should be as short as possible and offered in multiple formats such as games, podcasts, or videos; and employees need to be able to easily search learning resources and quickly find what they need.

Guardian Life Insurance Company of America and Royal Caribbean have adopted digital learning.[105] Guardian Life developed an immersive virtual reality tool that allows new field representatives to learn more about the agency culture, systems, processes, and people. Royal Caribbean's EMBARK training increases job skills proficiency for multiple job roles onboard Royal Caribbean ships by offering short, interactive digital learning modules. Hundreds of modules have been created for different departments, including Food and Beverage, Housekeeping, Lifeguard, and Guest Services. The digital learning platform provides a mobile-responsive user interface, videos, interactive content, and quizzes. Crew members can access it from any device on land or while at sea. Also, many adults are engaging in digital learning by acquiring new skills on their own from online sites such as Udemy, Skillshare, and Coursera, a trend which increased during the pandemic.[106] Both professional and personal courses that are popular include topics such as well-being, Pilates, programming, and technical drawing.

Digital learning solutions can include the use of artificial intelligence and wearables.[107] Artificial intelligence is a technology that simulates human thinking. It works through queries that allow it to learn from data over time so that it can identify trends and patterns that influence future searches and suggestions. Artificial intelligence is in use at home and in the workplace.[108] At home, artificial intelligence has provided us with personal assistants such as Apple's Siri or Amazon's Alexa to whom we can give orders such as to make a purchase or play a favorite song. Assistants, known as chatbots, are also available at work. MetLife Inc., an insurance company, provides chatbots equipped with artificial intelligence to its call center employees.[109] The chatbot listens in on service calls and alerts the employee when they are not correctly interacting with a customer. For example, it can prompt a call agent to use with more energy when speaking and make their supervisor aware of the issue. Call center employees can immediately make changes, the supervisor has information they can use to coach employees to improve their performance, and the data collected by the chatbot can be used to identify potential training needs or skills to emphasize during training.

Robots with artificial intelligence are being used in service and manufacturing.[110] FedEx is using robots that can both "see" using cameras and computer vision and "think" using artificial intelligence. They can work eight hours a day sorting over one thousand packages an hour from bins onto a conveyor belt. They are working at warehouses and sorting centers performing physically demanding and boring work—jobs that FedEx has difficulty finding and retaining humans to do. They can call on human workers when they need help such as identifying and sorting soft packages used to ship clothing. The robots are continuously learning, but compared to a human worker, they will never be able to deal with all of the unexpected situations that occur. Mabu, a portable robot, lives with a retired elderly man who lives alone. The robot monitors his irregular heartbeat, checks to make sure he weighs himself, takes his medications, and exercises regularly. The robot relays the information back to his health care providers.

Wearables are increasingly being used for training and performance support solutions. Wearable Intelligence provides smart eyewear technology and camera technology to give employees hands-free, voice-activated access to procedures and checklists and live access to experts using tablet computers. These technologies allow data and live video sharing, the opportunity to review best-practice videos before or during the performance of complex procedures and operations, and real-time notifications and alerts.[111] Aircraft mechanics at Robot Skies, a drone maintenance company, wear Google Glass headsets that allow them to share what they are seeing with remote experts who can provide advice and instruction on how to complete a repair.[112]

We discuss various digital learning solutions, artificial intelligence, and wearables in more detail in **Chapter Eight**.

Flexibility in Where and When Work Is Performed

The globalization of the world economy and the development of e-commerce have made the notion of a 40-hour workweek obsolete. Survey results show that 46 percent of employees work more than 45 hours per week.[113] As a result, companies need to be staffed 24 hours a day, seven days a week. Employees in manufacturing environments and service call centers are being asked to move from 8- to 12-hour days or to work afternoon or midnight shifts. Similarly, professional employees face long hours and work demands that spill over into their personal lives. Notebook computers, smartphones, and smartwatches bombard employees with information and work demands. In the car, on vacation, on planes, and even in the bathroom, employees can be interrupted by work demands. More demanding work results in greater employee stress, less satisfied employees, loss of productivity, and higher turnover—all of which are costly for companies.

Prior to the pandemic, it is estimated that 29 percent of wage and salary workers were able to work from home in their primary job and 25 percent at least occasionally work at home.[114] Slightly over half of workers had a flexible schedule that allowed them to vary the times they began and stopped work. About one-quarter of workers had a flexible schedule and could also work at home, while one-third had a flexible schedule but could not work at home. Thirty-eight percent of workers could not work at home and did not have a flexible schedule. Employees in managerial, business, and financial operations and professional occupations are most likely to do some or all of their work at home. Both the company and employees can benefit by providing flexible work schedules, allowing work-at-home arrangements, protecting employees' free time, and more productively using employees' work time.[115] The benefits of such flexibility include the ability to attract and retain talented employees; reduced stress, resulting in healthier employees; and a rested workforce that can maximize the use of its skills.

It appears that many workers would prefer to continue working remotely after the pandemic is over. At the one-year anniversary of the pandemic, a majority of U.S. workers reported they are working remotely all or part of the time in order to avoid catching or spreading the coronavirus.[116] Twenty-three percent reported they want to continue working remotely out of concern about the coronavirus. Forty-four percent of workers want to continue working remotely because they prefer it. They believe they are either just as or more productive working at home than at the office. For example, at Discover, Financial Services found that one-third of employees wanted to work permanently from home.[117] Other employees wanted the flexibility of choosing to work remotely, which Discover plans to provide post-pandemic.

Companies' policies on remote work will likely continue to vary. Some companies such as Phillips 66, the oil refiner, recalled employees without preexisting health conditions back to work from the office during the pandemic.[118] They did so because company leaders believed that limiting employee interactions to teleconferences and video meetings made it too difficult to generate the same level of creativity and productivity that occurs during face-to-face meetings in the office. Other companies are considering a hybrid approach involving working remotely as well as at the office. For example, CompuCom Systems Inc., an information technology service provider, is considering adopting core hours when employees would meet to exchange ideas, collaborate, and problem-solve.[119] Coursera, an online education provider, expects half of its employees to work blended hours after the pandemic. That is, three days a week in the office and the remainder of the week working remotely. At Automattic, almost all work is done remotely.[120] Automattic, which provides a content management system that is used on websites, has over 1,100 employees working in more than 50 countries. Employees rely on several tools including Slack, Zoom, and its own internal discussion board for documenting work, having discussions, and videoconferencing. The use of these tools means that everyone can access and search internal communications, creating feelings of transparency and inclusion. To ensure that employees have the ability to work remotely, Automattic uses a paid trial period consisting of using the company's systems and tools. The trial period allows job candidates to determine if they want to work remotely and whether the company thinks they will be successful. The company believes that job candidates

who can successfully work remotely are self-starters and continuous learners who do not need a lot of instruction and close supervision to complete work tasks.

Regardless of where they work, many employees experience emotional exhaustion, anxiety, and depression due to work demands, and these symptoms have been made worse by the pandemic. One estimate is that depression and anxiety disorders cost the global economy $1 trillion dollars each year in lost productivity.[121] Companies are taking several steps to help employees improve their mental health.[122] One way is by requiring employees to take time off. For example, employees at Indeed.com receive an extra holiday every month, usually on a Friday to create a long weekend. In **Chapter Ten**, other ways companies are trying to improve employees' mental health through work-life balance policies are discussed.

Increased Use of Nontraditional Employment

More companies are moving away from the traditional employment model based on full-time workers to increasingly rely on nontraditional employment. **Nontraditional employment** includes the use of independent contractors, freelancers, on-call workers, temporary workers, and contract company workers. One estimate is that almost 4 percent of workers in the United States (almost 6 million people) held contingent jobs, that is, jobs that were temporary or they did not expect to last.[123] Studies estimate that between 20 and 35 percent of the total U.S. workforce is engaged in nontraditional employment, including those who have a full-time job (what is called "moonlighting").[124] Companies that rely primarily on nontraditional employment to meet service and product demands are competing in the **gig economy**.[125] Gig workers are typically independent contractors who control when and where they work and often are assigned work through a website or mobile app (e.g., a ride-sharing driver). Because these workers do not work for a company, they do not have taxes withheld from their earnings, they do not have to receive minimum wage or overtime pay, and they are not eligible for workers' compensation and unemployment insurance.

The model for the gig economy focuses more on using a contingent workforce and more project-based assignments and has now been adopted in part by more and more U.S. businesses. This approach to project-based employment will require a different set of management skills for line managers who might need to manage virtual teams, remote workers, and constantly changing work terms. Survey results suggest that the share of gig workers at U.S. businesses has increased by more than 15 percent over the last 10 years and is expected to continue.[126] Examples of companies that rely on the gig economy include transportation services such as Uber and Lyft and food delivery services such as Caviar.

Nontraditional employment has benefits and disadvantages for both individuals and employers.[127]

More and more individuals don't want to be attached to any one company. They want the flexibility to work when and where they choose. They may want to work fewer hours to better balance work and family responsibilities. Also, individuals who have been downsized may choose nontraditional employment while they are seeking full-time employment.

From the company's perspective, it is easier to add temporary employees when they are needed and easier to terminate their employment when they are not needed. Part-time workers can be a valuable source of skills that current employees may not have and that may be needed for a specific project that has a set completion date. Part-time workers can be less expensive than permanent employees because they do not receive employer health benefits or participate in pension plans. Employing part-time workers such as interns allows the company to determine if the worker meets performance requirements and fits in with the company culture. If so, the company may then decide to offer the employee a permanent position. For example, some technology companies such as Honeywell have relied on crowdsourcing, using services such as Topcoder and Amazon's Mechanical Turk, to find scientists and software engineers who have the skills lacking in their own

employees to solve problems, create apps, or write code.[128] Google has approximately 121,000 temporary employees and contractors around the world, compared with 102,000 full-time employees. The temporary and contract workers perform a variety of jobs including content moderation and developing software.

Nontraditional employment also has potential disadvantages. These include concerns about work quality, inability to maintain the company culture or team environment, and legal liability.[129] The use of nontraditional work employment and work-at-home arrangements have resulted in the development of co-working sites or shared offices. Co-working sites are used by diverse workers such as designers, artists, freelancers, consultants, and other independent contractors. They pay a daily or monthly fee for a guaranteed work space including desks, Internet, conference rooms, and some even provide couches for relaxing and free coffee and beer.[130]

A key issue that nontraditional employment presents is the need to provide training that is specific, on demand, delivered in small chunks, and specifically focused on the worker's job.[131] Training contract workers, for example, helps ensure that they can successfully perform their jobs the way the company wants them to as well as establish the company as a place that they might want to come back to work for in the future. Some of the challenges in training workers in nontraditional employment relationships include ensuring that the type and length of their training is sufficient but not so extensive as to make them qualify as full-time employees for salary and benefit purposes.

High-Performance Work Systems

New technology causes changes in skill requirements and work roles and often results in redesigned work structures (e.g., work teams).[132] For example, computer-integrated manufacturing uses robots and computers to automate the manufacturing process. The computer allows the manufacture of different products simply by reprogramming the computer. As a result, laborer, material handler, operator/assembler, and maintenance jobs may be merged into one position. Computer-integrated manufacturing requires employees to monitor equipment and troubleshoot problems with sophisticated equipment, share information with other employees, and understand the relationships among all components of the manufacturing process.[133]

Through technology, the information needed to improve customer service and product quality becomes more accessible to employees. This means that employees are expected to take more responsibility for satisfying the customer and determining how they perform their jobs. One of the most popular methods for increasing employee responsibility and control is work teams. **Work teams** involve employees with various skills who interact to assemble a product or provide a service. Work teams may assume many of the activities usually reserved for managers, including selecting new team members, scheduling work, and coordinating activities with customers and other units in the company. To give teams maximum flexibility, cross training of team members occurs. **Cross training** refers to training employees in a wide range of skills so they can fill any of the roles needed to be performed on the team.

Consider the high-performance work systems at Johnson Controls.[134] Johnson Controls sells products and related technology and services to provide heating and cooling, humidity control, ventilation, and security in all kinds of buildings. To help customers meet their needs for energy consumption and cost control, the company's 105,000 employees must be constantly innovating and improving quality. Team work in manufacturing is the key to Johnson Control's success.

At the company's Norman, Oklahoma, facility, 700 employees produce equipment for heating, ventilation, and air condition (HVAC). They are assigned to 20-member high-performance teams. The company provides information technology including a manufacturing execution system, which provides teams with up-to-the-minute data about inputs needed from inventory and progress against the schedule for equipment in