INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY

AN APPLIED APPROACH

8th Edition

Michael G. Aamodt





Industrial/Organizational Psychology

An Applied Approach





MICHAEL G. AAMODT

DCI Consulting and Radford University







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Printed in the United States of America Print Number: 01 Print Year: 2014 This edition is dedicated to my good friend Larry Amy, who put up a valiant fight against throat cancer.

His caring manner, great sense of humor, and crazy personality will be missed—as will the dollars he lost every other week with the Charlton Lane poker group.

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Preface



I can't imagine a career better than industrial/organizational psychology; it has something for everyone. You can be a scientist, a detective, a lawyer, an adviser, a statistician, an inventor, a writer, a teacher, a mentor, a trainer, a high-stakes gambler, a motivator, a humanitarian, and an engineer—all at the same time. In no other field can you experience such challenging opportunities, earn an excellent salary, and derive the satisfaction of bettering the lives of others.

I wrote this book because there was a strong need for a text that would appeal directly to undergraduates without sacrificing scholarship. Our field is so exciting, yet the existing texts do not reflect that excitement. This book contains many real-world examples that illustrate important points; employment profiles that demonstrate the wide variety of I/O career paths; humor to make your reading more enjoyable; and charts and tables that integrate and simplify such complicated issues as employment law, job satisfaction, work motivation, and leadership.

In writing this book, I tried to strike a balance between research, theory, and application. In addition to the fundamental theories and research in I/O psychology, you will find such practical applications as how to write a résumé, survive an employment interview, write a job description, create a performance appraisal instrument, and motivate employees.

Student Friendly!

To make your reading easier, humor, stories, and real-world examples are used. The text is written at a level designed to help you understand the material rather than at a level designed to show off the author's vocabulary. The feedback I have received indicates that students actually *enjoy* reading this text!

To help you learn, *innovative charts* such as those found in Chapters 3, 8, 9, 10, and 13 integrate the main points of the chapter. At the beginning of each chapter, a list of *learning objectives* helps organize your thinking for what you are about to read. On each page, *key terms* are defined in the margins. At the end of each chapter, a *chapter summary* reminds you of the important points you learned, and *critical thinking questions* test the depth of your new knowledge.

To help you apply the material to whatever career you choose, each chapter contains an employment profile and some advice from a professional, a Career Workshop Box that provides tips on how to use the chapter information to help your career, a case study of an actual situation experienced by a real organization, and a Focus on Ethics Box that presents an ethical dilemma related to the chapter material.

Two Books in One!

At the request of your instructor, a workbook (ISBN 978-1-305-50076-1) or a statistics primer (ISBN 978-1-305-50078-5) will accompany each new textbook at no additional cost. Each chapter comes with exercises to help you apply what you have learned. Thus, not only will you read about I/O psychology, you will get the opportunity to experience it as well. You will take psychological tests, conduct the critical incident technique, solve case studies, analyze situations, write a résumé, prepare for an

interview, and create a structured interview. The text website includes additional materials to help you study: a complete chapter outline, a list of key terms that you can use as flash cards, and a practice exam. Making good grades was never easier!

Accompanying This Text

Online Instructor's Manual

The instructor's manual contains a variety of resources to aid instructors in preparing and presenting text material in a manner that meets their personal preferences and course needs. It presents chapter-by-chapter suggestions and resources to enhance and facilitate learning.

Online PowerPoint® Slides

These vibrant Microsoft PowerPoint® lecture slides for each chapter assist you with your lecture by providing concept coverage using content directly from the textbook.

Cengage Learning Testing, powered by Cognero

Cognero is a flexible online system that allows you to author, edit, and manage test bank content as well as create multiple test versions in an instant. You can deliver tests from your school's learning management system, your classroom, or wherever you want!

New to This Edition

- More examples of diversity efforts spread throughout the text
- Updates on changes in employment law
- Updated discussion on employee recruitment
- Enhanced discussion of the "dark side" of personality
- Increased discussion of personality spread throughout the text
- Updated use of technology examples
- Updated references and examples in every chapter

Acknowledgments

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Finally, I thank my wife, Bobbie, and son, Josh, for their love and emotional support. Most of the time, writing a book is an enjoyable process. However, during the times I was stressed or confused (an increasingly common occurrence), my family was always patient and understanding. I could not have done this, or much of anything, without them. I would also like to thank Bobbie for her contributions in helping write the stress chapter, the section on organizational culture, several of the Career Workshop Boxes, and all of the Focus on Ethics Boxes.

Michael G. Aamodt

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ABOUT THE AUTHOR

Mike is a professor emeritus of industrial/organizational psychology at Radford University in Radford, Virginia. In 2009, after 26 years of teaching at RU, Mike took advantage of an early retirement option and joined DCI Consulting Group as a principal consultant. He continues to teach a course each semester to fulfill his love of teaching.

Mike received his B.A. in psychology from Pepperdine University in Malibu, California, and both his M.A. and Ph.D. from the University of Arkansas. Over the years, Mike has taught courses in employee selection, job analysis, compensation, employee training and development, organizational psychology, organizational influence, organizational politics, and forensic psychology. Mike has received teaching awards as a graduate student at the University of Arkansas and as a professor at Radford University.

As a researcher, Mike has published over 50 articles in professional journals and presented many papers at professional conferences. He is the author of *Applied Industrial/Organizational Psychology*, now in its eighth edition, *Research in Law Enforcement Selection, I/O Psychology in Action, Understanding Statistics in I/O Psychology*, and *Human Relations in Business*. Mike is on the editorial boards of the *Journal of Police and Criminal Psychology*, *Applied H.R.M. Research*, and *Criminal Justice and Behavior*.

In over 30 years as a trainer and consultant, Mike has helped a wide variety of organizations deal with such issues as employee selection, performance evaluation, downsizing, organizational change, compensation, and motivation. He is considered one of the nation's experts in police psychology. Mike's fast-paced and humorous presentation style makes him a frequently requested speaker throughout the region.

Mike is an active member in many organizations, including SIOP, SHRM, IPAC, and the Society for Police and Criminal Psychology.

In his spare time, Mike likes to make lame attempts at being athletic, cook what at times turn out to be edible meals, travel, and SCUBA dive. He lives in Pulaski, Virginia, with his wife, Bobbie, and a neurotic dog, Gretchen. Mike and Bobbie have a son, Josh, who is an attorney in northern Virginia, but they continue to love him anyway.

Chapter

1

Introduction to I/O Psychology



Learning Objectives

- ➡ Be able to describe I/O psychology and what I/O psychologists do
- ► Learn about the history of I/O psychology
- ➤ Know the admissions requirements for graduate programs in I/O psychology
- ► Understand the importance of conducting research
- Understand how to conduct research
- ⇒ Be able to differentiate various research methods

The Field of I/O Psychology

Differences Between I/O and Business Programs

Major Fields of I/O Psychology Brief History of I/O Psychology Employment of I/O Psychologists Educational Requirements and Types of Programs

Research in I/O Psychology

Why Conduct Research?
Considerations in Conducting Research

Ethics in Industrial/Organizational Psychology

On the Job: Applied Case Study: Conducting Research at the Vancouver (British Columbia) International Airport Authority, Canada ouldn't it be wonderful if all employees loved their jobs so much that they couldn't wait to get to work and were so well suited and trained that their performances were outstanding? Well, this is the ultimate goal of industrial psychology. Unfortunately, not every employee will enjoy his or her job, and not every employee will do well on a job. In this book, you will learn the techniques developed by industrial/organizational (I/O) psychologists that show the way toward the goal of a happy and productive workforce.

Before we can talk about these techniques, several areas must be discussed so that you will have the basics to help you better understand the rest of the book. This chapter has two distinct sections. The first section provides a brief overview of the field of I/O psychology, and the second section discusses the research methods that will be mentioned throughout the text.

The Field of I/O Psychology

Differences Between I/O and Business Programs

Industrial-organizational psychology A branch of psychology that applies the principles of psychology to the workplace

Perhaps the best place to begin a textbook on I/O psychology is to look at the field itself. **Industrial/organizational psychology** is a branch of psychology that applies the principles of psychology to the workplace. The purpose of I/O psychology is "to enhance the dignity and performance of human beings, and the organizations they work in, by advancing the science and knowledge of human behavior" (Rucci, 2008).

For example, principles of learning are used to develop training programs and incentive plans, principles of social psychology are used to form work groups and understand employee conflict, and principles of motivation and emotion are used to motivate and satisfy employees. The application of psychological principles is what best distinguishes I/O psychology from related fields typically taught in business colleges. Although many of the topics covered in this text are similar to those found in a human resource management (HRM) or organizational behavior text, the main difference between I/O psychology and business fields is that I/O psychology examines factors that affect the *people* in an organization as opposed to the broader aspects of running an organization such as marketing channels, transportation networks, and cost accounting (Kimbrough, Durley, & Muñoz, 2005). As you can see from the typical graduate courses listed in Table 1.1, business (MBA) programs examine such areas as accounting, economics, and marketing, whereas I/O programs focus almost exclusively on issues involving the people in an organization (Moberg & Moore, 2011).

I/O psychology relies extensively on research, quantitative methods, and testing techniques. I/O psychologists are trained to use empirical data and statistics rather than intuition to make decisions. I/O psychologists are not clinical psychologists who happen to be in industry, and they do not conduct therapy for workers. There are psychologists who work for organizations and help employees with such problems as drug and alcohol abuse, but these are counselors rather than I/O psychologists. A factor that helps differentiate I/O psychology from other branches of psychology is the reliance on the scientist-practitioner model. That is, I/O psychologists act as scientists when they conduct research and as practitioners when they work with actual organizations. In addition, I/O psychologists

Table 1.1 Comparison of Commonly Required Courses in I/O Psychology and MBA Programs

	Progra	m Type
Course	I/O (%)	MBA (%)
Research methods	90	6
Quantitative methods	82	50
Employee selection	80	0
Organizational psychology/behavior	80	48
Psychometrics/test construction	62	0
Training & development	60	2
Performance appraisal	38	2
Finance	0	94
Marketing	0	90
Corporate strategies and policies	4	82
Accounting	0	78
Information systems	0	68
Economics	0	66
Operations management	0	56
Culture/global/international business	12	42
Ethics	20	36

Source: Moberg, J. L., & Moore, S. (2011). I/O psychology versus M.B.A. programs. Paper presented at the 32nd annual Industrial/Organizational Psychology and Organizational Behavior Graduate Student Conference. San Diego. CA.

act as scientist-practitioners when they apply research findings so that the work they perform with organizations will be of high quality and enhance an organization's effectiveness.

One reason that I/O psychology continually increases in popularity is that, perhaps more than in any other field, professionals in the field can have a positive impact on the lives of other people. To support this last statement, let us look at a typical day in the life of a typical person:

Work	8 hours
Commute to work	1 hour
Watch TV	3 hours
Sleep	8 hours
Prepare and eat meals	2 hours
Other	2 hours

With the possible exception of sleeping, people spend more time at their jobs than at any other activity in life (and sometimes these two activities overlap!). Thus, it makes sense that people who are happy with and productive at their jobs will lead more fulfilling lives than people unhappy with their jobs. If a person is unhappy at work for eight hours a day, the residual effects of this unhappiness will affect the quality of that person's family and leisure life as well.

From a societal perspective, I/O psychologists can also improve the quality of life by increasing employee effectiveness, which reduces the cost of goods sold by improving product quality. This in turn reduces repair and replacement costs by improving organizational efficiency, which can result in decreases in inefficient activities such as waiting in line.

Thus, I/O psychology can improve the quality of life at levels equal to, and often exceeding, those of fields such as counseling psychology and medicine. So, even though I/O psychologists earn a good salary, the real benefits to the field involve the positive impacts on the lives of others.

Major Fields of I/O Psychology

Though the goal of I/O psychology is to increase the productivity and well-being of employees, there are two approaches as to how this can be accomplished. The industrial approach (the "I" in I/O psychology) focuses on determining the competencies needed to perform a job, staffing the organization with employees who have those competencies, and increasing those competencies through training. The organizational approach (the "O" in I/O psychology) creates an organizational structure and culture that will motivate employees to perform well, give them the necessary information to do their jobs, and provide working conditions that are safe and result in an enjoyable and satisfying work/life environment.

Personnel Psychology

I/O psychologists and HRM professionals involved in **personnel psychology** study and practice in such areas as analyzing jobs, recruiting applicants, selecting employees, determining salary levels, training employees, and evaluating employee performance. Professionals working in these areas choose existing tests or create new ones that can be used to select and promote employees. These tests are then constantly evaluated to ensure that they are both fair and valid.

Personnel psychologists also analyze jobs to obtain a complete picture of what each employee does, often assigning monetary values to each position. After obtaining complete job descriptions, professionals in personnel psychology construct performance-appraisal instruments to evaluate employee performance.

Psychologists in this area also examine various methods that can be used to train and develop employees. People within this subfield usually work in a training department of an organization and are involved in such activities as identifying the organization's training needs, developing training programs, and evaluating training success.

Organizational Psychology

Psychologists involved in **organizational psychology** are concerned with the issues of leadership, job satisfaction, employee motivation, organizational communication, conflict management, organizational change, and group processes within an organization. Organizational psychologists often conduct surveys of employee attitudes to get ideas about what employees believe are an organization's strengths and weaknesses. Usually serving in the role of a consultant, an organizational psychologist makes recommendations on ways problem areas can be improved. For example, low job satisfaction might be improved by allowing employees to participate in making certain company decisions, and poor communication might be improved by implementing an employee suggestion system.

Personnel psychology The field of study that concentrates on the selection and evaluation of employees.

Organizational

psychology The field of study that investigates the behavior of employees within the context of an organization.

Professionals in organization development implement organization-wide programs designed to improve employee performance. Such programs might include team building, restructuring, and employee empowerment.

Human Factors/Ergonomics

Human factors A field of study concentrating on the interaction between humans and machines.

Psychologists in the area of human factors concentrate on workplace design, human-machine interaction, ergonomics, and physical fatigue and stress. These psychologists frequently work with engineers and other technical professionals to make the workplace safer and more efficient. Sample activities in this subfield have included designing the optimal way to draw a map, designing the most comfortable chair, and investigating the optimal work schedule.

Brief History of I/O Psychology

Considering that the field of psychology itself has been around for only a relatively short time (since 1879), it is not surprising that I/O psychology has a correspondingly short history. Although various experts disagree about the precise beginning of I/O psychology (Table 1.2), it is generally thought to have started either in 1903 when Walter Dill Scott wrote *The Theory of Advertising*, in which psychology was first applied to business; in 1910 when Hugo Münsterberg wrote *Psychology and Industrial Efficiency*, which was first published in English in 1913; or in 1911 when Scott wrote the book *Increasing Human Efficiency in Business* (Koppes & Pickren, 2007). Regardless of the official starting date, I/O psychology was born in the early 1900s. In addition to Scott and Münsterberg, pioneers in the field include James Cattell, Walter Bingham, John Watson, Marion Bills, and Lillian Gilbreth (DiClemente & Hantula, 2000). Interestingly, the term "industrial psychology" was seldom used prior to World War I. Instead, the common terms for the field were "economic psychology," "business psychology," and "employment psychology" (Koppes & Pickren, 2007).

I/O psychology made its first big impact during World War I. Because of the large number of soldiers who had to be assigned to various units within the armed forces, I/O psychologists were employed to test recruits and then place them in appropriate positions. The testing was accomplished mainly through the Army Alpha and Army Beta tests of mental ability. The Alpha test was used for recruits who could read and the Beta test for recruits who could not read. The more intelligent recruits were assigned to officer training, and the less intelligent to the infantry. Interestingly, John Watson, who is better known as a pioneer in behaviorism, served as a major in the U.S. Army in World War I and developed perceptual and motor tests for potential pilots (DiClemente & Hantula, 2000). I/O psychologists, along with engineers such as Henry Gantt, were responsible for increasing the efficiency with which cargo ships were built, repaired, and loaded (Van De Water, 1997).

Though certainly not an I/O psychologist, inventor Thomas A. Edison understood the importance of selecting the right employees. In 1920, Edison created a 163-item knowledge test that he administered to over 900 applicants. The test and passing score were so difficult that only 5% of the applicants passed! You will learn more about Edison's test in the Applied Case Study at the end of Chapter 6.

Two of the most interesting figures in the early years of I/O psychology were the husband and wife team of Frank Gilbreth and Lillian Moller Gilbreth. The Gilbreths were among the first, if not the first, scientists to improve productivity and reduce fatigue by studying the motions used by workers. Frank began his career as a

Army Alpha An intelligence test developed during World War I and used by the army for soldiers who can read.

Army Beta An intelligence test developed during World War I and used by the army for soldiers who cannot read.

 Table 1.2
 Important Events in I/O Psychology

Year	Event
1903	Walter Dill Scott publishes The Theory of Advertising
1911	Walter Dill Scott publishes Increasing Human Efficiency in Business
1913	Hugo Münsterberg publishes Psychology and Industrial Efficiency (German version published in 1910)
1917	Journal of Applied Psychology first published
1918	World War I provides I/O psychologists with first opportunity for large-scale employee testing and selection
1921	First Ph.D. in I/O psychology awarded to Bruce Moore and Merrill Ream at Carnegie Tech
1932	First I/O text written by Morris Viteles
1933	Hawthorne studies published
1937	American Association for Applied Psychology established
1945	Society for Industrial and Business Psychology established as Division 14 of the American Psychological Association (APA) with 130 members
1951	Marion Bills elected as the first woman president of Division 14
1960	Division 14 renamed as Society for Industrial Psychology, membership exceeds 700
1963	Equal Pay Act passed
1964	Civil Rights Act passed First issue of <i>The Industrial-Organizational Psychologist</i> (TIP) published
1970	Division 14 membership exceeds 1,100
1971	B.F. Skinner publishes Beyond Freedom and Dignity
1980	Division 14 membership exceeds 1,800
1982	Division 14 renamed Society for Industrial and Organizational Psychology (SIOP)
1986	Society for Industrial and Organizational Psychology (SIOP) holds first annual national conference separate from APA meeting
1989	Supreme Court sets conservative trend and becomes more "employer friendly"
1990	Americans with Disabilities Act passed SIOP membership exceeds 2,832
1991	Civil Rights Act of 1991 passed to overcome 1989 conservative Supreme Court decisions
1995	SIOP membership exceeds 4,500
1997	SIOP celebrates golden anniversary at its annual conference in St. Louis
2000	SIOP membership exceeds 5,700
2005	Office of Federal Contract Compliance Programs (OFCCP) and Equal Employment Opportunity Commission (EEOC) become more aggressive in fighting systemic discrimination SIOP membership exceeds 5,900
2008	The journal <i>Industrial and Organizational Psychology: Perspectives on Science and Practice</i> begins publication as an official journal of SIOP
2009	Lilly Ledbetter Fair Pay Act and Americans with Disabilities Act Amendment Act (ADAAA) passed
2010	SIOP membership exceeds 8,000; SIOP members narrowly vote to keep the name Society for Industrial Organizational Psychology rather than change the name to the Society for Organizational Psychology
2013	OFCCP issues new regulations affecting the hiring of military veterans and individuals with disabilities
2014	SIOP membership exceeds 8,300

contractor and became famous for developing improvements in bricklaying that reduced the number of motions needed to lay a brick from 18 to 4½. Lillian, the much more educated of the two, received her Ph.D. from Brown University in 1915—a rare achievement for a woman at that time. As a couple, they had 12 children, and the efficiency methods they used to raise their children while having busy careers were the inspiration for the book and the movie *Cheaper by the Dozen* (the 1950 version of the movie). After Frank's death in 1924 at the age of 55, Lillian continued her consulting with industry, as the Great Depression forced companies to find ways to reduce costs and be more productive. In 1935, she became a professor of management and engineering at Purdue University, the first woman to hold such a position.

During these early years, I/O psychology thrived outside of the United States. Prominent psychologists who applied psychology to problems in industry outside the United States included Jules Suter in Switzerland; Bernard Muscio in Australia; Franziska Baumgarten-Tramer, Walter Moede, William Stern, Otto Lipmann, and Emil Kraepelin in Germany; Jean-Marie Lahy in France; Edward Webster in Canada; and Cyril Burt, Charles Myers, and Sir Frederick Bartlett in Great Brittan (Vinchur & Koppes, 2007; Warr, 2007).

In the 1930s, I/O psychology greatly expanded its scope. Until then, it had been involved primarily in personnel issues such as the selection and placement of



Frank and Lillian Gilbreth were two pioneers in I/O psychology. **Hawthorne studies** A series of studies, conducted at the Western Electric plant in Hawthorne, Illinois, that have come to represent any change in behavior when people react to a change in the environment.

Hawthorne effect When employees change their behavior due solely to the fact that they are receiving attention or are being observed.

employees. However, in the 1930s, when the findings from the famous **Hawthorne studies** were published, psychologists became more involved in the quality of the work environment, as well as the attitudes of employees. The Hawthorne studies, conducted at the Hawthorne plant of the Western Electric Company in the Chicago area, demonstrated that employee behavior was complex and that the interpersonal interactions between managers and employees played a tremendous role in employee behavior. The Hawthorne studies were initially designed to investigate such issues as the effects of lighting levels, work schedules, wages, temperature, and rest breaks on employee performance.

Much to the surprise of the researchers, the actual work conditions did not affect productivity in the predicted manner. That is, there were times when productivity improved after work conditions were made worse, and times when productivity decreased after work conditions were made better. After interviewing employees and studying the matter further, the researchers realized that employees changed their behavior and became more productive *because* they were being studied and received attention from their managers, a condition that is now commonly referred to as the **Hawthorne effect**. Perhaps the major contribution of the Hawthorne studies was that it inspired psychologists to increase their focus on human relations in the workplace and to explore the effects of employee attitudes (Olson, Verley, Santos, & Salas, 2004).

The 1960s were characterized by the passage of several major pieces of civil rights legislation, which are discussed in Chapter 3. These laws focused the attention of HR professionals on developing fair selection techniques. As a result, the need for I/O psychologists greatly increased. The 1960s were also characterized by the use of sensitivity training and T-groups (laboratory training groups) for managers (Carson, Lanier, Carson, & Guidry, 2000).

The 1970s brought great strides in the understanding of many organizational psychology issues that involved employee satisfaction and motivation. The decade also saw the development of many theories about employee behavior in organizations. B. F. Skinner's (1971) *Beyond Freedom and Dignity* resulted in the increased use of behavior-modification techniques in organizations.

The 1980s and 1990s brought four major changes to I/O psychology. The first involved an increased use of fairly sophisticated statistical techniques and methods of analysis. This change is evident if one compares journal articles written in the 1960s with those written since 1980. More recent articles use such complex statistical techniques as path analysis, structural equation modeling, meta-analysis, multivariate analysis of variance (MANOVA), and causal modeling. Prior to the 1970s, simpler statistical techniques such as *t*-tests and analysis of variance (ANOVA) were used (unless you are wearing a pocket protector or have taken a statistics course, these methods probably are not familiar to you). This reliance on statistics explains why students enrolled in an I/O psychology doctoral program take at least five statistics courses as part of their education.

A second change concerned a new interest in the application of cognitive psychology to industry. For example, articles written about performance appraisal in the 1970s primarily described and tested new methods for evaluating employee performance. In the 1980s and early 1990s, however, many articles approached the performance appraisal issue by examining the thought process used by managers when they conduct such appraisals.

The third change was the increased interest in the effects of work on family life and leisure activities (McCarthy, 1998). Though stress had long been of

interest to psychologists, it was during the last two decades of the twentieth century that employee stress—especially stress resulting in workplace violence—received attention.

The final major change in the 1980s and 1990s came about when I/O psychologists took a renewed interest in developing methods to select employees. In the 1960s and 1970s, the courts were still interpreting the major civil rights acts of the early 1960s, with the result that I/O psychologists took a cautious approach in selecting employees. By the mid-1980s, however, the courts became less strict, and a wider variety of selection instruments was developed and used. Examples of these instruments include cognitive ability tests, personality tests, biodata, and structured interviews. Other changes during the 1980s and 1990s that had significant effects on I/O psychology included massive organizational downsizing, greater concern for diversity and gender issues, an aging workforce, increased concern about the effects of stress, and the increased emphasis on such organizational development interventions as total quality management (TQM), reengineering, and employee empowerment.

In the 2000s, perhaps the greatest influence on I/O psychology is the rapid advances in technology. Many tests and surveys are now administered on the Internet, employers recruit and screen applicants online; job seekers use such social media outlets as Twitter, LinkedIn, and Facebook to find jobs; employees are being trained using e-learning and distance education; and managers are holding meetings in cyberspace rather than in person.

Another important factor impacting I/O psychology is the changing demographic makeup of the workforce. Women are increasingly entering the workforce and taking on managerial roles; Hispanics and Latinos are now the largest minority group in the United States; Asian Americans are the fastest-growing segment of the U.S. population; and an increasing number of workers, vendors, and customers have English as their second language. Thus, diversity issues will continue to be an important factor in the workplace.

The global economy is also affecting the role of I/O psychology. As many manufacturing jobs are shifted to developing countries with lower wages, there will be an increased emphasis on service jobs requiring human relations skills. As an increasing number of employees work in other countries (as expatriates) and as rates of immigration (both legal and illegal) increase, efforts must keep pace to understand various cultures, and training must be conducted so that employees and managers can successfully work not only in other countries, but at home with expatriates from other countries.

Other factors that are currently impacting I/O psychology include high unemployment rates, movements toward flexible work schedules, family-friendly work policies, accommodation of an increasing number of employees with child-care and elder-care responsibilities, flatter organizational structures with fewer management levels, population shifts from urban to suburban locations, and increasing costs of health-care benefits. In addition, potential changes in the retirement age for Social Security may result in employees working into their late sixties.

Employment of I/O Psychologists

Throughout this text, you will find Employment Profiles, which look at specific jobs done by people with degrees in I/O psychology. However, it is useful to examine some of the broad areas in which I/O psychologists work as well. As shown in Table 1.3, I/O psychologists typically work in one of four settings: colleges and universities, consulting