

# INTRODUCTION TO INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY

PART

# 1



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**CHAPTER 1** Introduction to Industrial and Organizational Psychology

**CHAPTER 2** Research Methods in Industrial and Organizational Psychology



# Introduction to Industrial and Organizational Psychology

CHAPTER

# 1

## Chapter Outline

- The Science and Practice of Industrial and Organizational Psychology
- Specialties within Industrial and Organizational Psychology and Work Settings
- Qualifications for Becoming an Industrial and Organizational Psychologist
- How You Can Benefit from Studying Industrial and Organizational Psychology
- A Brief History of Industrial and Organizational Psychology
- Ethical Challenges and Legal Considerations in Industrial and Organizational Psychology



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## Learning Objectives

After reading and studying this chapter and doing the exercises, you should be able to:

1. Recognize the difference between the science and practice of industrial and organizational psychology.
2. Identify the major specialties in industrial and organizational psychology.
3. Know the qualifications for becoming an industrial and organizational psychologist.
4. Pinpoint several benefits you can gain from studying industrial and organizational psychology.
5. Briefly summarize a history of industrial and organizational psychology.
6. Be aware of the ethical and legal challenges facing industrial and organizational psychologists.

During the last 25 years, the use of executive coaching has increased substantially. Most of the early executive coaches were management psychologists, but now people from many fields including social workers and former business executives work as executive coaches. Executive coaching is firmly established as a way for senior leaders in large organizations to increase their effectiveness in dealing with people and making business decisions. One estimate is that there are 50,000 coach practitioners worldwide. With all this coaching activity taking place, a handful of researchers decided to rigorously evaluate whether the executive coaching brings about positive results for the executives coached (coachees) and their organizations.

One study about coaching effectiveness in a global healthcare organization involved 180 coachees, 66 coaches, and 140 line managers of the executives coached. To make the study scientific, some participants were randomly assigned to an experimental group that received coaching versus a control group that did not receive coaching. The results of the study strongly suggested that executive coaching has a positive payoff. Both coachees and their line managers thought that coaching improved their executive effectiveness. Some of the coaching had a positive effect on deeper layers of personality, such as the people in the experimental group becoming more prudent and less excitable. Another finding was that coaching effectiveness can be further improved by coachees being mentally prepared, resilient, and motivated. Coaching also improved the well-being of the coachees.

Another group of researchers analyzed the results from 84 carefully-conducted studies of executive coaching. For example, a study evaluating the effects of coaching conducted by a coach was excluded from the sample. The researchers found 70 positive outcomes from coaching, grouped into three types: Personal development, positive behavioral changes in dealing with other people, and improved work performance. An example of a positive personal development outcome is that coaching helps improve the coachee's resilience, workplace well-being, and reduce job stress.<sup>1</sup>

**industrial and organizational psychology** The application of psychological principles and theories to the workplace.

The report just presented illustrates two key themes about industrial and organizational psychology. First, executive coaching is a sample of the type of work industrial and organizational psychologists perform. Second, industrial-organization psychologists conduct research to evaluate the effectiveness of human resource practices. **Industrial and organizational psychology** is the application of psychological principles and theories to the workplace. (The field is also referred to as *industrial-organizational psychology*, *industrial/organizational psychology*, and *I-O psychology*.) The industrial side of the field focuses on such areas as employee recruitment, selection, training, and performance measurement and appraisal. The organizational side focuses on such topics as worker motivation, job satisfaction, work groups, organizational culture, and organization development.

The primary goal of industrial and organizational psychology is to study human behavior in the workplace and implement techniques to improve productivity, satisfaction, and organizational effectiveness.<sup>2</sup> For example, an industrial and organizational psychologist might discover that by explaining the importance of a worker's output to customers and society, employee turnover could be reduced. Reducing turnover, in turn, boosts productivity and lowers costs, thus making the organization more effective.

The field of human resource management (HRM) resembles closely the industrial side of I-O psychology, and HRM is based heavily on the research of I-O psychologists. The field of organizational behavior closely resembles the organizational side of I-O psychology. In fact, the field of organizational behavior had its origins in organizational psychology. Today, a blending of knowledge across fields exists, and I-O psychologists often apply knowledge developed from the fields of human resource management and organizational behavior.



## The Science and Practice of Industrial and Organizational Psychology

As with many fields, industrial and organizational psychology is both a science and a practice, or profession. The term *science* for many people connotes working in a laboratory with advanced equipment and machinery to make discoveries such as metal that will not melt in a temperature of 1,000°F or a drug to slow down dementia. Yet *science* can be social as well as physical. This is true because science is “The pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.”<sup>3</sup> Industrial and organizational psychology is a science to the extent that systematic research is conducted to obtain potentially useful results. The chapter opener about studying the effects of executive coaching is an example of scientific inquiry.

A sampling of the type of scientific research conducted by industrial and organizational psychologists is as follows:

- Identifying needs for employee training and development
- Investigating which types of job designs result in the highest productivity and satisfaction
- Evaluating the effectiveness of various types of employee training programs
- Measuring the effects of cultural diversity on creativity in work groups
- Studying the impact of music on employee productivity
- Evaluating the productivity impact of multitasking on professional workers
- Measuring the relationship between videoconferencing and employee fatigue
- Evaluating the impact of an employee wellness program on employee health, absenteeism, productivity, and stress
- Evaluating the positive and negative consequences of organizational citizenship behavior (going beyond the job description to help others)
- Measuring the impact of flexible work schedules on work-family conflict

After conducting research, the researcher usually attempts to publish an article about the research in a scholarly journal. If the journal editors think the article is worthy of consideration, the article is then reviewed by other professors, a process known as *peer review*. Getting a research article published in a leading journal is highly competitive; most journals accept for publication only between 5 and 10 percent of articles submitted. Figure 1-1 lists 12 leading journals that publish research in industrial and organizational psychology as well as related areas.

The practice of industrial and organizational psychology is essentially the subject of most of this book. A practitioner of industrial and organizational psychology is much like a lawyer, accountant, tax preparer, or physician who has the education, training, and certification to offer services to the public. Many practitioners who are not psychologists offer similar or identical services. Among them are human resource consultants, training

**FIGURE 1-1** Twelve Leading Journals Publishing Research in Industrial and Organizational Psychology and Related Areas

<i>Academy of Management Journal</i>	<i>Journal of Management</i>
<i>Academy of Management Review</i>	<i>Journal of Occupational and Organizational Psychology</i>
<i>Administrative Science Quarterly</i>	<i>Journal of Organizational Behavior</i>
<i>Human Relations</i>	<i>Journal of Vocational Behavior</i>
<i>Journal of Applied Psychology</i>	<i>Personnel Psychology</i>
<i>Journal of Business and Psychology</i>	<i>The Leadership Quarterly</i>

specialists, management consultants, executive coaches, and life coaches. Following is a sampling of services offered by practitioners of industrial and organizational psychology:

- Choosing a battery (group) of psychological tests that help select job candidates who are most likely to be high performers
- Designing a job interview format that helps identify high-performing candidates and also minimizes interviewer bias
- Providing suggestions to management for attaining a higher level of employee engagement
- Developing a system leading to higher motivation for a specific group of workers, such as call-center technicians
- Counseling an executive on how to prevent and reduce his or her work stress
- Making suggestions for improving the leadership effectiveness of the top-management team
- Helping an organization control excessive, negative organizational politics

The accompanying *Industrial and Organizational Psychology Concepts in Action* illustrates how methodology developed by psychologists can help an organization attain a worthy goal.

An important point of clarification is that the science and practice of industrial and organizational psychology are not mutually exclusive. Many industrial and organizational psychologists are both scientists and practitioners. The more frequent case is that many professors of industrial and organizational psychology conduct research and also provide consulting services to organizations. An example would be an I-O psychology professor who helps clients screen candidates for managerial positions, as well as improving their organizational culture.

The less frequent case is an industrial and organizational psychologist who is a full-time member of a large consulting firm yet also conducts and publishes research. In recent years, for example, many psychological consultants have conducted research to evaluate the effectiveness of cultural diversity programs. Several of the larger management consulting firms grant staff members time to conduct research.

## Specialties within Industrial and Organizational Psychology and Work Settings

As with almost all professions, industrial and organizational psychologists tend to develop specialties. Few practitioners profess to be skilled in almost all the activities of their profession. In this section we describe briefly the major specialties within organizational and industrial psychology, along with the related topic of where I-O psychologists are the most likely to be employed. The major specialties of industrial and organizational psychologists are as follows:

1. *Selection System Development.* The first practitioners of industrial (or personnel) psychology focused most of their attention on developing more accurate methods of employee selection. Employee selection is still a major role for industrial and organizational psychologists. The focus here is on developing methods of assessing job candidates to make accurate predictions of their job performance, such as a test of conscientiousness. A major contribution of the psychologist is to use statistical methods to evaluate the validity of an assessment instrument, such as a test of cognitive ability or personality. Selection



Source: fizkes/Shutterstock.com

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## Nutrition Solutions Finds That Criminal Past May Not Predict Poor Job Performance

Nutrition Solutions is a trendy lifestyle meal preparation service with particular appeal to people who want to develop athletic-appearing bodies. Most employees at the company are formerly-convicted felons. One reason for the willingness of Nutrition Solutions to hire formerly incarcerated people is that founder and CEO Chris Cavallini was arrested 17 times before he was 18 years old. Another reason stems from guidance by HR recruiting and selection specialists using industrial and organizational psychology techniques. Past criminal behavior may not be an accurate predictor of poor job performance.

Cavallini believes strongly in giving people an opportunity to advance despite records including felony convictions, homelessness, or substance abuse. Yet Nutrition Solutions still uses screening criteria for any convicted felon who applies for a job. Cavallini explains, “We look for how that person has taken responsibility for what has happened in the past and if they are ready to do whatever it is they have to do for as long as they need to do it to create a better life for themselves and their families.”

Two questions on the Nutrition Solutions online job application deal with past convictions: (1) Have you ever been convicted of a felony? Exclude any convictions for which the records are sealed or expunged. (2) If yes, please explain in detail. (A conviction will not automatically disqualify you for employment. Rather, such factors as age and date of conviction, seriousness and nature of the crime, and rehabilitation will be considered.)

The Getting Back to Work Initiative led by the Society for Human Resource Management (SHRM) and Koch Industries helped end non-inclusive hiring practices that applied to former felons as well as other groups. The initiative was triggered by the First Step Act of 2018. As a result of the initiative, the efforts at Nutrition Solutions to recruit and hire former felons were reinforced. The initiative includes a toolkit that provides employers guidance in compliance issues, background checks, interviewing, and assessment screening. Guidance is also provided in risk analysis, negligent hiring (hiring a person who later commits a violent act), hiring incentives, and understanding criminal background and report language.

Cavallini notes that for formerly incarcerated felons to be successful after leaving prison, they must reconfigure their belief systems, priorities, values, and network of friends. After being hired, all Nutrition Solutions employees must participate in two weekly boot-camp-style workouts with a personal trainer. The goal of the



Source: Ariya J/Shutterstock.com

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sessions is to build discipline and control aggression. Newly hired employees also write reports on how leadership lessons written by two US Navy Seal veterans apply to their lives. Cavallini wants to make new employees smarter, more efficient, disciplined, and more valuable to the company.

The Nutrition Solutions’ mission statement suggests the company’s humanitarian approach. The company sees itself as an institution of higher learning, with a culture geared around personal responsibility, attention to detail, high standards, and most importantly to helping people. The objective with every team member is to help that person unlock his or her true potential and become something more than at present.

### QUESTIONS

1. How would the Nutrition Solutions’ approach to hiring ex-felons ease the type of labor shortage problem experienced after the COVID-19 pandemic?
2. Identify a position for which you would be the least likely to hire an ex-felon, and explain your reasoning. Or explain why you might place no restrictions on a position for which you would hire an ex-felon.

Source: Original story based on facts and observations in the following sources: Carol Brzozowski, “Criminal Past Less a Predictor for Workplace Futures,” *Workforce* July/August 2019, p. 10; Chris Cavallini, “Please Read: I Beg You,” *NutritionSolutions.com*, 2022, p. 1; “Nutrition Solutions Overview,” *Glassdoor* ([www.glassdoor.com](http://www.glassdoor.com)), © 2008–2022, pp. 1–2; “Career Application” *Nutrition Solutions* ([www.nutritionSolutions.com](http://www.nutritionSolutions.com)), 2022, p. 2.

systems are also used to evaluate the suitability of present employees for transfer to another job or promotion. Chapter 5 describes selection systems.

2. *Training and Development.* Industrial and organizational psychologists play an important but behind-the-scenes role in employee training and development. Although some psychologists conduct training, their role usually focuses on designing and evaluating such programs. A beginning step is often to investigate in what areas training and development are needed. Learning principles are used to formulate the programs for job training, management development, and leadership development. Evaluation of training development programs often examines the effects of programs with respect to outcomes such as job performance and satisfaction. For example, an answer might be sought to this question: “Did the managers who participated in the leadership training program improve the morale of their employees and achieve better business results one year later?” Career counseling is often part of employee development and is a specialty of many psychologists. Chapter 7 is about training and development.
3. *Performance Measurement and Improvement.* Some industrial and organizational psychologists work closely with human resource professionals to develop fair and objective methods of measuring performance. Going back over 75 years, industrial psychologists (their label at the time) developed precise methods of rating worker performance. An example was the pair-comparison scale in which each department member was compared to every other department member in terms of contribution to the goals of the department. Several other types of rating scales were developed, along with other more objective methods of evaluating performance via interviews. Measuring performance led naturally to developing methods of helping workers improve their performance, such as through counseling and goal setting. Chapter 8 describes performance evaluation and management.
4. *Organization Development.* Some industrial and organizational psychologists specialize in helping an entire organization change and improve, such as helping change attitudes toward more risk taking and willingness to change. Organization development is sometimes thought to include interventions at the individual and group level because as individuals and groups improve, so does the organization. For example, if an executive is counseled about how to be more patient and less impulsive, the improvement in decision making will help the entire organization or a large part of it. Chapter 16 includes a description of organization development.
5. *Worker Well-Being.* Directly or indirectly, the work of all psychologists is aimed at improving the human condition. Yet many industrial and organizational psychologists focus their efforts directly on improving the work lives of people. This specialty is also referred to as occupational health psychology, or quality of work life. Advancing worker well-being includes such activities as identifying factors that contribute to job satisfaction, designing jobs to make them more meaningful, and helping workers reduce and prevent negative work stress. Efforts at improving work well-being frequently have a payoff both on the job and in personal life. Chapter 10 about worker stress and wellness deals directly with worker well-being. The same topic is touched upon in Chapter 6 about job attitudes, engagement, and satisfaction, and in Chapter 9 about worker motivation.
6. *Engineering (or Human Factors) Psychology.* A few psychologists contribute to teams of professionals who apply information about physical and psychological characteristics of people to the design of devices and systems for human use. Advanced knowledge about human behavior helps design machines, machine systems, work methods, and environments to take into account the safety and comfort of workers. An everyday example is that *user-friendly* software is well-designed from a human-factors perspective. Human factors and ergonomics are virtually the same idea. Ergonomics is the science of fitting the worker to the job, and seeks to minimize the physical demands on workers and optimize system performance. Engineering psychology has been helpful in designing computer work stations that minimize neck, back, and eye strain. Human factors psychology is touched on only



indirectly is this book, such as in job analysis and in Chapter 3, and work stress in Chapter 10.

The variety of specialties within I-O psychology suggests that they apply in different settings. I-O psychologists apply scientific principles and experience-based knowledge in a variety of organizations, including universities, private businesses, consulting firms, and government agencies. Universities hire the most I-O psychologists, followed by consulting firms, private companies, and federal and state governments. Within universities, most I-O psychologists work in psychology departments, but many are members of the management department within a college of business. The reason is that the fields of I-O psychology and organizational behavior overlap extensively.

## Qualifications for Becoming an Industrial and Organizational Psychologist

The qualifications for becoming an industrial and organizational psychologist depend on whether a person wants simply to do psychological work versus being a full-fledged, certified, and licensed I-O psychologist. Figure 1-2 presents a sampling of the job titles held by industrial and organizational psychologists.

### Performing Psychological Work with a Bachelor's or Master's Degree

At the most basic level, a person could receive a bachelor's degree with a major in psychology or industrial and organizational psychology and then perform some type of work related to psychology. One possibility would be to occupy an entry-level position in a human resources department and help in activities such as conducting a job analysis or screening candidates for basic positions. Another possibility would be to work in a consulting firm and help statistically analyze data.

The opportunity to perform psychological work greatly improves with attaining a master's degree in industrial and organizational psychology. A master of science program in industrial and organizational psychology will typically focus on building a deep understanding of psychological principles and how to apply them in a work setting.<sup>4</sup> At the same time, going back since its inception, the industrial (or personnel) part of I-O psychology emphasizes heavily a knowledge of statistics. Advanced tools such as data analytics and artificial intelligence (AI) are now part of master's and doctoral programs. For example, validating selection instruments is an almost entirely statistical procedure. Some of the positions that a person might attain with a master's degree in I-O psychology might also

**FIGURE 1-2** A Sampling of Job Titles of Industrial and Organizational Psychologists and Others Performing Psychology-Related Work

Industrial and Organizational Psychologist (or Industrial/Organizational Psychologist)	Staffing and Recruiting Manager
Consulting Psychologist	Talent Management Specialist
Human Resources Manager	Organization Development Consultant
Chief Human Resources Officer	Workforce Analyst
Executive Coach	Career Development Specialist
Director of Training and Development	Personnel Psychologist
Training and Development Specialist	Talent Manager Officer
Organizational Effectiveness Consultant	Research Scientist

be attained with an MBA. For example, a human resources consulting firm might hire an MBA to help with employee selection and evaluate training programs.

Another example of a professional-level position open to a person with a master's degree in I-O psychology is a talent management specialist. These specialists implement programs aimed at attracting and managing a business organization talent pool. (*Talent* has become a buzzword to replace *people* or *human resources*.) Talent management specialists help design and fine-tune performance management programs such as succession planning, career development, and mapping out career paths. The talent management specialist might also conduct research about the company's effort to attract and retain talent.<sup>5</sup>

### Working as a Licensed Psychologist with a Doctoral Degree

A wide variety of specialists and professionals work in fields dealing with human behavior, including counselors, executive coaches, applied anthropologists, and human resource consultants. Yet in virtually all states and provinces, only people with specific qualifications are permitted by law to label themselves *psychologist*. Licensure of the job title *psychologist* (a title law) and the practice of *psychology* (known as a practice law) are restricted. Similarly, a wide variety of people can dispense advice about legal matters, but only people with specific qualifications can use the job title *lawyer*.

The fine details and restrictiveness of state and province licensure (or certification) requirements differ, but they have a few major requirements in common:

- Obtaining a PhD, or PsyD from an accredited university. A PsyD doctorate emphasizes practice more than research and appeals to people who intend to practice psychology rather than conduct research. Holders of an EdD (doctorate in education) who majored in psychology are also eligible for a psychology license.
- Having work supervised for about one to two years by a licensed psychologist.
- Obtaining a qualifying score on the Examination for Professional Practice in Psychology (EPPP). Several private firms offer preparation courses for taking the EPPP, similar to a prep course for the Law School Aptitude Test (LSAT).
- Passing an oral exam conducted by the state or provincial board (California no longer has this requirement).<sup>6</sup>



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Being a licensed psychologist is essential to work as a clinical psychologist in a mental health setting.

five years of experience and pass examinations developed by senior members of the profession. One part of attaining Diplomate status is to be observed practicing psychology, such as interviewing a job candidate, resolving a workplace conflict between two people, or coaching an executive. Being a Diplomate in I-O psychology may bring personal satisfaction and some prestige but is unlikely to be a job requirement for more than a handful of positions.<sup>7</sup>

Being a licensed psychologist is essential to work as a clinical psychologist in a mental health setting. Working in a business, government, or educational setting as an I-O psychologist may not require a license but still labeling oneself as a *psychologist* requires a license. For example, an I-O psychologist who holds the title Director of Organization Development or Associate Professor of Psychology is not required to hold a psychology license.

### Advanced Certification as an Industrial and Organizational Psychologist

Going one step beyond having a license, some I-O psychologists also hold a diploma from the American Board of Professional Psychology. The ABPP is a nonstatutory credentialing organization. A Diplomate in Industrial-Organizational Psychology is required to have at least

## Membership in the Society for Industrial and Organizational Psychology

Most industrial and organizational psychologists in the United States are members of the American Psychological Association (APA) or the American Psychological Society. Many I-O psychologists are also members of the Academy of Management because of overlapping interests between members of both groups. Similarly, many I-O psychologists are members of the Society for Human Resource Management (SHRM) and the Society for Industrial and Organizational Society (an APA division as well as an affiliate of the American Psychological Society). To become a Fellow in the Society, the I-O psychologist must have made a unique and outstanding contribution to the field, in the judgment of the person's colleagues. Most other professional societies also grant Fellow status to their most outstanding contributors.<sup>8</sup>

## How You Can Benefit from Studying Industrial and Organizational Psychology

Studying industrial and organizational psychology can enhance your effectiveness as a manager or professional. Yet the benefits of studying I-O psychology are not as immediately apparent as those derived from the study of functional fields such as accounting, information technology, and logistics. Such fields constitute the *content* of managerial and professional work. Industrial and organizational psychology relates to the *process* of such work, such as selecting employees and evaluating performance. Two key exceptions are that if you become an I-O psychologist or an HR specialist, knowledge about I-O psychology becomes the content of your work.

Visualize Vince who has inherited a lot of money and purchases an existing auto-supply company. He has good knowledge of supply-chain issues and auto parts. Yet Vince has limited knowledge about motivating people, providing effective leadership, and communicating effectively. His ability to run a successful auto-supply company will therefore be limited until he acquires better skills in motivating, leading, and communicating with people.

Learning about I-O psychology offers four key advantages: (a) enhancement of individual and organizational effectiveness, (b) sharpening and refinement of common sense, (c) personal growth, and (d) the possibility of discovering a potential career for yourself.

### Enhancement of Organizational and Individual Effectiveness

A major benefit from studying industrial and organizational psychology is that it provides information that can be applied to organizational problems. An important goal of I-O psychology is to improve **organizational effectiveness**—the extent to which an organization is productive and satisfies the demands of its interested parties. Each chapter of this book contains information that is applied directly or indirectly by many organizations. One visible example is the widespread use of teams in the workplace. Certainly, organizational psychologists did not invent teams. We suspect even prehistoric people organized some of their hunting forays by teams. Nevertheless, the conclusions of industrial-organizational psychology researchers facilitated the shift to teams in organizations.

Understanding I-O psychology also improves organizational effectiveness because it uncovers factors that contribute to or hinder effective performance. Among these many factors are employee motivation, personality factors, and communication barriers. Furthermore, an advanced understanding of people is a major contributor to managerial success. This is especially true because so much of a manager's job involves accomplishing tasks through people.

Industrial and organizational psychology also contributes insights and skills that can enhance individual effectiveness. If a person develops knowledge about subjects such as enhancing job satisfaction, motivating workers, and using more inclusive language, the

#### **organizational effectiveness**

The extent to which an organization is productive and satisfies the demands of its interested parties.



Source: bleakstar/Shutterstock.com

person will become more effective. A specific example is that knowledge about workplace behavior can contribute to high performance. Executive coach Lisa Parker observes that managers sometimes neglect to give encouragement and recognition to good performers because these workers are already performing well. Yet if these same solid performers were given more encouragement, coaching in the form of advice, and recognition, they will often develop into superstars (very high performers).<sup>9</sup>

A frequent problem noted about managers is that they practice too much *favoritism*, or giving choice assignments and favorable performance evaluations to group members they like the most. A study of organizational politics would help a manager place less emphasis on favoritism and base personnel decisions more on objective measures of performance.

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### Sharpening and Refining Common Sense

A manager commented after reading through several chapters of an organizational psychology textbook, “Why should I study this field? It’s just common sense. My job involves dealing with people, and you can’t learn that through a book.” Many other students of industrial and organizational psychology as well as organizational behavior share the sentiments expressed by this manager. However logical such an opinion might appear to be, common sense is not an adequate substitute for knowledge about industrial and organizational psychology. This knowledge sharpens and enlarges the domain of common sense. It markedly reduces the amount of time necessary to acquire important behavioral knowledge and skills, much as law school reduces the amount of time that a person in a previous era would have had to spend as a law apprentice.

You may know through common sense that giving recognition to people is generally an effective method of motivating them toward higher performance. By studying I-O psychology, however, you might learn that recognition should be given frequently but not every time somebody attains high performance. (You specifically learn about intermittent rewards in your study of motivation.) You might also learn that the type of recognition you give should be tailored to the individual’s personality and preferences. For example, some people like flamboyant praise, whereas others prefer praise focused tightly on the merits of their work. Formal knowledge thus enhances your effectiveness.

I-O psychology knowledge also refines common sense by challenging you to reexamine generally accepted ideas that may be only partially true. One such idea is that inactivity is an effective way to reduce stress from a hectic schedule. In reality, some hard-driving people find inactivity more stressful than activity. For them, lying on a beach for a week might trigger intense chest pains. For these people, diversionary physical activity—such as doing yard work—is more relaxing than inactivity.

If you study industrial and organizational psychology, you might become sensitized to the contribution of **evidence-based management**, or using research evidence to help make management decisions. The goal of evidence-based management is to improve the quality and decisions and therefore further human progress.<sup>10</sup> The Center for Evidence-Based Management points to four sources of evidence that should be considered, along with the quality of the evidence, when making a decision:

- Findings from empirical (data-based) studies published in academic journals
- Data, facts, and figures gathered from within the organization in which the decision maker is working
- The experience and judgment of managers, professionals, and other practitioners
- The values and concerns of the stakeholders (people involved with the organization) who may be affected by the decision<sup>11</sup>

**evidence-based management**  
Using research evidence to help make management decisions.



Research and case-history evidence might be available for some types of decisions but not all. The careful student of I-O psychology would look to see what evidence was available before making a decision. A relevant example is the movement toward employee engagement, or commitment to the work and company, as a way of enhancing organizational effectiveness. Some people regard employee engagement as a fad, yet evidence from hundreds of companies and over 60,000 employees indicates that employee engagement enhances organizational performance.<sup>12</sup>

An important caution about using evidence-based management is that you should not be frozen from making a decision just because relevant research on the topic is not available.<sup>13</sup> For example, a business owner might have the intuition that offering paternity leave to the men in his organization would boost employee loyalty and morale. He should make his decision now even if he cannot locate empirical research or other relevant data on this potential benefit of paternity leave.

### Personal Growth through Insight into Human Behavior

An important reason for studying industrial and organizational psychology is the personal fulfillment gained from understanding others.<sup>14</sup> Understanding fellow human beings can also lead to enhanced self-knowledge and self-insight. For example, while studying what motivates others, you may gain an understanding of what motivates you. Participating in the experiential exercises and self-assessments included in this textbook provides another vehicle for personal growth. A case in point is the study of motivation in Chapter 9. You will be invited to take a self-quiz about the meaningfulness of work to you. Taking the test and reviewing the results will give insight into the types of attitudes and behaviors you need to make your work more meaningful.

Personal growth through understanding others and self-insight is meritorious in and of itself, and it also has practical applications. Managerial and professional positions require sharp insights into the minds of others for tasks such as selecting people for jobs and assignments, communicating, and motivating. Sales representatives who can size up the needs of prospects and customers have a competitive advantage. Another value of understanding others and self-insight is that they contribute to continuous learning because the needs of others change over time, and so might your needs. For example, the recent labor shortages have prompted many workers to demand exciting and meaningful work and worry less about job security.

### The Possibility of Discovering a Potential Career for Yourself

Many readers of this book have already selected a career, including becoming an I-O psychologist. For some other readers, studying I-O psychology might prompt them to enter the field. Mary Sharp Emerson, of the Harvard Extension Schools, writes that industrial and organizational psychology is a dynamic field that offers a range of variety and opportunity.<sup>15</sup> Practicing I-O psychology provides you an opportunity to help people because you would help make workplaces safe, productive, and satisfying. For example, if you helped design an effective wellness program, many workers would lead a healthier lifestyle, including managing stress better. Going back to World War I, personnel psychologists were instrumental in identifying minority group members who had superior problem-solving ability who might otherwise have been overlooked. The identification was based on mental ability tests.

The field of I-O psychology also has strong appeal to quantitatively minded people who want to spend much of their working time involved with statistics and conduct research. For example, an I-O psychologist might head up a team to investigate which employee benefits really improve employee satisfaction, commitment to the organization, and retention (staying with the employer for at least a few years).



Source: EdBockStock/Shutterstock.com

A business owner might have the intuition that offering paternity leave to the men in his organization would boost employee loyalty and morale. He should make his decision now even if he cannot locate empirical research or other relevant data on this potential benefit of paternity leave.

As with many other fields requiring advanced education, being an I-O psychologist gives you the opportunity to work in many different settings, including service industries, manufacturing industries, government agencies, research companies, and colleges and universities. The demand for I-O psychologists remains strong but is difficult to specify quantitatively because these psychologists fill many positions in addition to those with the job title *I-O psychologist*. (Refer back to Figure 1-2.) Industrial and organizational psychology is also a well-paying field, comparable to other fields with similar education. Those I-O psychologists who become executives, such as the chief human resource officer or director of research, earn executive-level salaries.

A final consideration here about the benefits of a career in I-O psychology is that having the professional title *psychologist* carries prestige. An overwhelming majority of people have heard the term *psychologist*, even if the connotation is mostly in relation to a mental-health profession.

## A Brief History of Industrial and Organizational Psychology

Reviewing the history of industrial and organizational psychology helps you appreciate how finding systematic ways to enhance worker productivity and satisfaction is a concern that has endured for a minimum of 125 years. I-O psychology has evolved considerably since its beginnings, but it remains focused on individual and organizational effectiveness. Here we focus on some of the historical milestones in the field.

### The First Glimpses of Industrial and Organizational Psychology

Industrial and organizational psychology originated at the beginning of the 20th century, specifically around 1901. Several prominent early psychologists studied issues and conducted experiments that could be classified as industrial (or personnel) psychology. These influential psychologists were students of the two people credited with founding psychology around 1879: Wilhelm Wundt in Germany and William James at Harvard University. In 1903, William Scott published a book about the psychological aspects of advertising. In 1910, Hugo Munsterberg published a textbook, *Psychology and Industrial Efficiency*, which covered topics still of interest to I-O psychology researchers and practitioners. Formal training in industrial psychology began with this first textbook in its field.

Another major impetus to the growth of industrial psychology was when James McKeen Cattell, a long-time professor at Columbia University, founded the Psychological Corporation in 1921. It still exists today but has merged into a test publisher. Psychological Corporation provides services to organizations and individuals. Walter Dill Scott is also recognized as a key early figure in the development of I-O psychology. He focused on applying psychological principles to advertising, publishing several books on the topic. In addition, Scott published essays on using psychological principles to solve industrial problems. With the opening of The Scott Company, he initiated the practice of consulting psychology that may have started with the Psychological Corporation.

Walter Bingham was another pioneer in I-O psychology. He began the first academic program in industrial psychology and directed the Psychological Corporation. Bingham worked diligently to achieve recognition and respectability for I-O psychology. Among his public relations activities were radio-show appearances and contributions to newspapers and magazines.<sup>16</sup>

### The Contributions of Scientific Management to Personnel Psychology

In its early days, the field of industrial psychology received impetus from the work of an engineer named Frederick W. Taylor, the founder of scientific management. The focus of **scientific management** was the application of scientific methods to increase an individual worker's productivity. An example would be assembling a lawn mower with the least number of wasted motions and steps. Taylor used scientific analysis and experiments to increase worker output. A key part of his system was to convert individuals into the

**scientific management** The application of scientific methods to increase workers' productivity.

equivalent of machine parts by assigning them specific, repetitive tasks.

Taylor tackled the dilemma of management wanting to maximize profits and workers wanting to maximize possible wages. Disputes between management and labor centered on what each side saw as incompatible goals. Taylor believed that management and labor should regard profit as the result of cooperation between the two parties. Management and labor each needed the other to attain their goals.<sup>17</sup>

Lillian Gilbreth was another influential industrial psychologist who researched ways to increase productivity. Applying time and motion studies, Gilbreth and her husband, Frank, sought to make workers more efficient by reducing the number of motions required to perform a task, such as installing a wheel on a truck. In addition to applying these methods to industry, she also applied them to the home and workshops. Gilbreth is credited with putting shelves on the inside of refrigerator doors and inventing foot pedals for garbage cans.<sup>18</sup>

According to these principles of scientific management, there is a division of work between managers and workers. Managers plan and design work, assign tasks, set performance goals, and make time schedules. Managers also select and train workers to do the tasks according to standard procedures, and give the workers feedback about their performance. Scientific principles of personnel selection help choose the best worker for a given position. Workers are rewarded with financial incentives when they increase their productivity.<sup>19</sup>

## Industrial Psychology Helps the United States Army during World War I

A key historical development for industrial psychology was its contribution to the personnel office of the US Army during World War I, which took place from 1914 to 1918. Scott and Bingham were responsible for many projects that contributed to making efficient use of human resources. One example was the introduction of carefully-developed methods for rating the performance of both soldiers and civilians working for the army. Robert Yerkes, the president of the American Psychological Association, organized a group of psychologists with the Surgeon General's Office that developed methods for screening and selecting enlisted men (no women at the time). The group developed the Army Alpha test to measure mental ability via a multiple-choice, paper-and-pencil format. Developed at the same time was the Army Beta test of mental ability, a nonverbal format that was administered to illiterate and non-English-speaking draftees. An example would be a question that asked what is missing from a drawing of a person's face that lacked a mouth.

Scott and Bingham put together a group under the Adjunct General's Office, whose goal was to develop selection methods for officers. They created a catalogue of occupational needs for the army. The catalogue was essentially a job-description system and a system of performance ratings and occupational skill tests for officers.<sup>20</sup>

## The Hawthorne Studies

Many scholars pinpoint the Hawthorne Studies (1923–1933) as the true beginning of the organizational psychology as well as the behavioral approach to management.<sup>21</sup> Without the insights gleaned from these studies, organizational psychology might not have emerged as a discipline. The purpose of the first study conducted at the Hawthorne plant of Western Electric (an AT&T subsidiary) was to determine the effect of changes in lighting on productivity. In this study, workers were divided into an experimental group and a control group. Lighting conditions for the experimental group varied in intensity from 24- to 46- to 70-foot-candles. The lighting for the control group remained constant.

As expected, the experimental group's output increased with each increase in light intensity. But unexpectedly, the performance of the control group also changed. The



Scientific management is the application of scientific methods to increase worker productivity.

Source: fizkes/Shutterstock.com





Source: Yury K/Shutterstock.com

The Hawthorne Effect is the tendency of people to behave differently because they respond to the demands of the situation.

**Hawthorne effect** The tendency of people to behave differently when they receive attention because they respond to the demands of the situation.

production of the control group increased at about the same rate as that of the experimental group. Later, the lighting in the experimental group's work area was reduced. This group's output continued to increase, as did that of the control group. A decline in the productivity of the control group finally did occur, but only when the intensity of the light was roughly the same as moonlight. Clearly, the researchers reasoned, something other than illumination caused the changes in productivity.

The relay assembly test room produced similar results over a six-year period. In this case, relationships among rest, fatigue, and productivity were examined. First, normal productivity was established with no formal rest periods and a 48-hour week. Rest periods of varying length and frequency were then introduced. Productivity increased as the frequency and length of rest periods increased. Finally, the original conditions were reinstated. The return to the original conditions, however, did not result in the expected productivity drop. Instead, productivity remained at its usual high level.

One interpretation of these results was that the workers involved in the experiment enjoyed being the center of attention. Workers reacted positively because management cared about them. The phenomenon is referred to as the **Hawthorne effect**—the tendency of people to behave differently when they receive attention because they respond to the demands of the situation. In a research setting, this could mean that the people in an experimental group perform better simply because they are participating in an experiment. In a work setting, this could mean that employees perform better when they are part of any program—whether or not that program is valuable.

The Hawthorne Studies also produced other findings that served as the foundation for organizational psychology as well as the human relations movement. Although many of these findings may seem obvious today, documenting them reinforced what many managers believed to be true. Key findings included the following:

1. Economic incentives are less potent than generally believed in influencing workers to achieve high levels of output.
2. Dealing with human problems is complicated and challenging.
3. Leadership practices and work-group pressures profoundly influence employee satisfaction and performance.
4. Personal problems can strongly influence worker productivity.
5. Effective communication with workers is critical to managerial success.
6. Any factor influencing employee behavior is embedded in a social system. For instance, to understand the impact of pay on performance, you have to understand the climate in the work group and the leadership style of the manager. Furthermore, work groups provide mutual support and may resist management schemes to increase output.

Despite the contributions of the Hawthorne Studies, they have been criticized as lacking scientific rigor and being seriously flawed. The most interesting criticism contends that the workers in the control group were receiving feedback on their performance. Simultaneously, they were being paid more as they produced more. The dual impact of feedback and differential rewards produced the surprising results—not the Hawthorne effect.<sup>22</sup>

### Refinement of Methods from World War II through the Mid-1960s

During World War II, I-O psychologists working for the US Army and the US Navy refined their methods of selection, employee placement, and appraisal. The same methods had surfaced during World War I, but they were now substantially improved. The research



and practice of I-O psychologists in the areas of employee recruitment, selection, and performance appraisal increased in importance during the early 1960s. A flurry of I-O psychologist activity was prompted by Congress passing the 1964 Civil Rights Act. Title VII of the act covered equal employment opportunity, meant to protect employees against discrimination based on race, color, religion, sex, or national origin. I-O psychologists contributed to employment fairness in such ways as conducting quantitative research to ensure that methods of employee selection and evaluation were accurate and valid. For example, a member of the Equal Employment Opportunity Commission would want to know if the input of an I-O psychologist was used in choosing a given mental ability test to use in selecting employees for entry-level positions.

The mid-1960s were also notable for industrial and organizational psychology joining forces. In addition to the traditional interest areas of industrial psychology, such as selection and training, considerable research and practice were directed toward areas such as worker motivation, team building, morale, and organization development.

## Emergence of the APA Division of Industrial and Organizational Psychology

A milestone in industrial and organizational psychology was its acceptance as part of traditional psychology, such as clinical psychology and child psychology, which took place in 1970. Division 14 of the American Psychological Association changed its name to the “Division of Industrial and Organizational Psychology.” To people outside the field, this change would not appear to be particularly important, but becoming a division of the APA gave more stature to industrial and organizational psychology.

In 1982, Division 14 incorporated as the Society for Industrial and Organizational Psychology (SIOP). Today it is an international professional association with an annual membership of more than 5,000 industrial-organizational psychologists who study and apply scientific principles to the workplace.<sup>23</sup> In addition, about 4,000 student members will become researchers and practitioners in the future.

## The Modern Era Including Today

From the 1980s forward, I-O psychology has continued to expand and deal with topics that have an important impact on individuals and organizations. The field continues to grow steadily, with about 1,200 I-O professors employed in departments of psychology or schools of business or management. There are approximately 220 programs offering graduate degrees in I-O psychology or related fields.<sup>24</sup> For example, a doctor of business administration degree (DBA) in organizational behavior might also be considered equivalent to a degree in organizational psychology.

I-O psychology has emphasized statistical analysis and other quantitative methods since its inception. As with most fields, I-O psychology today sometimes incorporates artificial intelligence (AI) and data analytics into its research. (See Chapter 2.) For example, an I-O psychologist working with an HR professional might examine 10,000 data points to help figure out which job candidates have the highest probability of staying with the firm for five years. The conclusion might support managerial judgment. Job candidates who have family members and friends in the company have a high probability of staying with the company (among other factors).

Scanning the contents of 2022 issues of the *Journal of Applied Psychology* provides insight into what job-relevant and socially relevant issues industrial and organizational psychologists are tackling today. Here are seven examples:

- Work-leisure blending
- Measuring the diversity climate of an organization
- Employee voice (speaking up about a concern)
- How a company’s stated political affiliation affects job seekers’ interest in applying to that firm

- The nature of workplace incivility
- Effects of a healthy lifestyle on work behavior
- How diversity affects job analysis

As I-O psychology continues to deal with current topics of relevance, we can anticipate that this trend will continue. One area of some interest today that might be expanded in the future is how virtual reality might be used to enhance employee performance.

## Ethical Challenges and Legal Considerations in Industrial and Organizational Psychology

Practitioners of I-O psychology face many of the same ethical issues as do all professionals who offer services to the public, including clinical and counseling psychologists. Researchers in I-O psychology also face a few ethical issues because their work can impact the welfare of human beings. The ethical and legal issues unique to I-O psychology stem from the reality that applying knowledge about workplace behavior affects the employment of individuals and, therefore, their livelihood. I-O psychologists are required to follow the APA ethics code, which lays out 10 standards addressing such issues as professional competence, record keeping, education and training, and confidentiality.

Before describing additional general considerations about the ethical conduct of I-O psychology, here are two examples of ethical challenges facing a company I-O psychologist or an outside consultant:

*Scenario A: Career Counseling.* Psychologist Clark is interviewing Amanda, a wealth manager at a large bank. The company believes that Amanda has a lot of potential and is grooming her for a vice-president position. During the interview, she tells Clark, “I really don’t care too much about the bank. I am just staying here until I think that I have enough potential clients so I can start my own business as a wealth manager. In the meantime, the money and benefits here are great, so I will hang around for a while.”

Clark now has an ethical dilemma. The bank is paying his consulting firm for his services, so he is therefore loyal to the bank. Maybe he should inform bank management not to bother promoting Amanda because she will be leaving soon. Or do the plans for Amanda to soon leave to start her own business qualify as confidential information that should not be revealed to a third party? If Clark informs bank management that Amanda plans to leave soon, she might be denied a promotion or even fired.

*Scenario B: Going Outside One’s Field of Competence.* Nikki works as an I-O psychologist at a large manufacturing company. Her specialties are using quantitative methods to conduct research about recruitment, selection, and training. Today she receives a request from the vice president of human resources, who says, “Nikki, we have a tough problem in the executive suite. Phil, the marketing vice president, is acting bizarre lately. I know that he is facing a lot of personal problems. We need you to counsel him a little to calm him down. We don’t want to send Phil for outside medical help quite yet. I know that you are a certified psychologist, so we need your assistance.”

Nikki is facing an ethical challenge. She does not want to turn down a request from the HR vice president, yet she does not feel qualified to counsel people about personal problems. Clinical psychology is outside her domains of competence. Would you ask an orthopedic surgeon to conduct brain surgery just because he or she was a certified surgeon?

### Ethical and Legal Organizational Practices

Organizational practices developed with the help of I-O psychologists should be effective in terms of enhancing productivity. At the same time, they must be fair, legally defensible, and applied appropriately to hiring, training, promotion, compensation, and related personnel decisions. Major federal legislation impacting the work of I-O psychologists is

### FIGURE 1-3 Summary of Several Human Resources Laws Affecting the Practice of Industrial and Organizational Psychology

**Age Discrimination in Employment Act (ADEA).** Prohibits employment practices that discriminate on the basis of age unless age is a bona fide occupational qualification or the practice is based on “reasonable factors other than age.” The law covers employers with 20 or more employees, labor unions with 25 or more members, local and state governments, and employment agencies.

**Americans with Disabilities Act (ADA).** Prohibits employers with 15 or more employees from discriminating against individuals with disabilities in all aspects of employment. The act requires employers to “reasonably accommodate” all qualified disabled applicants unless doing so would impose an “undue hardship.”

**Civil Rights Act of 1964, Title VII.** Prohibits employment discrimination based on race color, sex, religion, or national origin by employers with 15 or more employees. The act covers both intentional discrimination or discrimination in effect and considers sexual harassment to be a form of sex discrimination.

**Employee Polygraph Protection Act.** Prohibits employers from requiring employee or prospective employees to submit to lie detector tests and makes it illegal to use or inquire about a lie detector test conducted by someone else.

**Equal Pay Act.** Requires all employers engaged in interstate commerce to pay men and women equal wages for work that requires equal skill, effort, and responsibility and is performed under similar working conditions.

**Occupational Safety and Health Act (OSHA).** Requires safe and healthful working conditions. The act authorizes enforcement of certain standards; assists and encourages the states in their efforts to assure safe and healthful working conditions; and provides research, information, education, and training in the field of occupational safety and health.

Sources: “Summary of the Major Laws of the Department of Labor,” *US Department of Labor*, [www.dol.gov](http://www.dol.gov), 2022, pp. 1–11; “Compliance Tools for All HR Professionals,” *HR.BLR.com*, 2020, pp. 1–12.

summarized in Figure 1-3. (We will return to this legislation at appropriate places in the text.) As mentioned here in the history of I-O psychology, Title VII of the Civil Rights Act of 1964 frequently influences the work of I-O psychologists. All states and provinces and many cities have similar legislation of their own.

I-O psychologists are supposed to help ensure that organizational practices and methods are fair, job-relevant, and applied appropriately. I-O psychologists need to be sensitive to diversity and international issues, including the possible impact of culture and racial identities on workplace interactions. A basic example would be for an I-O psychologist to check whether telephone screening interviews are not biased against people for whom English is a second language. To be ethical, I-O psychologists should prevent the misuse or misinterpretation of their work. Visualize a psychologist showing management the results of a job satisfaction survey indicating that 25 percent of the company’s workforce strongly disapproves of management. A misuse of this work would be for management to instruct supervisors to “weed out the malcontents and fire them.” It would be more ethical for management to improve factors that led to their disapproval.

Another ethical issue is for I-O psychologists to know whether to break confidences when uncovering potential violent behavior in the conduct of interviews or surveys. Suppose that while conducting a performance-improvement interview, a psychologist learns of a disgruntled employee who threatens to “burn down the building.” It is best for the psychologist to have an agreement beforehand that potentially harmful workers should be brought to the attention of management and possibly the police.

The ethical issue of conflict of interest can arise with sponsored research. As a researcher, the I-O psychologist has an ethical obligation to report the results of the research objectively and truthfully. Yet the research sponsor that provides a generous research grant might be looking for results supporting the sponsor’s agenda. Imagine a psychologist receiving a \$1 million grant by a cannabis manufacturer and distributor to study the impact of cannabis on job performance. The research team might feel pressure for the study to reveal that cannabis in limited doses improves creativity, problem-solving ability, and job satisfaction.<sup>25</sup>

## Special Ethical Issues for I-O Consulting Psychologists

When I-O psychologists work as consultants providing services to other companies, they are obliged to follow that same ethical code of conduct as psychologists working in other settings.

Several other ethical issues surface when working as an outside consultant. As with all helping professions, when the client's problem is resolved, the consultant loses a client and more fees at least for now. A consultant might therefore have difficulty saying to the client, "You are all set, and you no longer need my services." Instead, the consultant might look for more areas to be of service, such as conducting another survey or conducting a workshop on a trendy topic such as integrating people with autism into the workforce. The consultant must ask himself or herself the question, "Am I recommending another service mostly because I want my fees to continue? Or, do I have the client's best interests in mind?"

We mentioned earlier the importance of I-O psychologists not taking on tasks outside their areas of competence. The challenge is greater with external consultants because if they do not take on a problem offered by a client, they forgo getting paid. When the psychologist is working as an employee, there is less concern about not being paid because of turning down a project outside of one's field of competence. To consult effectively and ethically, consultants need to evaluate the areas in which they are competent and in which they are not.<sup>26</sup> The appropriate skills and knowledge may stem from graduate education, self-study, seminars, and supervision by a more experienced I-O psychologist. The need for continuous learning is particularly important because new workplace behavior issues surface regularly, such as helping a client create an inclusive environment for transgender employees.

### Summary of Key Points

1. **Recognize the difference between the science and practice of industrial and organizational psychology.** I-O psychology is both a science and practice, or a profession. Industrial and organizational psychologists conduct many types of research, including identifying employee needs for training and development. Researchers usually attempt to publish their findings. The practice of industrial and organizational psychology is essentially the topic of this book. A practitioner of I-O psychology offers services to the public. The science and practice of I-O psychology are not mutually exclusive, with many psychology professors doing both.
2. **Identify the major specialties in industrial and organizational psychology.** Specialties of I-O psychology include (a) selection system development, (b) training and development, (c) performance management and improvement, (d) organization development, (e) worker well-being, and (f) engineering (or human factors) psychology.
3. **Know the qualifications for becoming an industrial and organizational psychologist.** The qualifications for becoming an industrial and organizational psychologist depend on whether a person simply wants to do psychological work versus being a full-fledged certified and licensed I-O psychologist. It is possible for a person with a bachelor's degree in the field to perform some activities in an HR department. The opportunity to perform psychological work greatly improves with obtaining a master's degree in industrial and organizational psychology. One such position would be a talent management specialist. In virtually all states and provinces, only people with specific qualifications are permitted by law to label themselves *psychologist*. Obtaining a doctorate in psychology and passing a licensing exam are required. An advanced certification is to hold a diploma from the American Board of Professional Psychology. Many I-O psychologists are associated with the Society for Industrial and Organizational Psychology.
4. **Pinpoint several benefits you can gain from studying industrial and organizational psychology.** Benefits from studying the field include (a) enhancing individual and organization effectiveness, (b) sharpening and refining common sense, including the use of evidence-based management, (c) experiencing personal growth through insight into human behavior, and (d) possibly finding an interesting career for yourself.
5. **Briefly summarize a history of industrial and organizational psychology.** The history of the field is



divided here into these historical milestones: (a) the first glimpses of I-O psychology, (b) the contributions of scientific management to personnel psychology, (c) industrial psychology helping the US Army during World War I, (d) the Hawthorne studies, (e) refinement of methods from World War I through the mid-1960s, (f) emergence of the APA division of industrial and organizational psychology, and (g) the modern era including today.

6. ***Be aware of the ethical and legal challenges facing industrial and organizational psychologists.*** Practitioners of I-O psychology face many of the same ethical issues as do all professionals who offer services to the public. I-O researchers also face ethical issues

because their work can impact the welfare of human beings. Major federal legislation impacting the work of I-O psychologists is summarized in Figure 1-3.

I-O psychologists are required to follow the APA ethics code, which lays out 10 standards for addressing such issues as professional competence, education, training, and confidentiality. Organization practice should be effective but also fair, legally defensible, and applied appropriately to personnel issues. Conflict of interest is another potential ethical issue. I-O consulting psychologists face special ethical issues because their compensation is based on fee rather than on salary.

## Key Terms and Phrases

Industrial and organizational psychology, p. 4	Organizational effectiveness, p. 11	Scientific management, p. 14
	Evidence-based management, p. 12	Hawthorne effect, p. 16

## Discussion Questions and Activities

1. What do you think was the rationale for calling many of the early industrial psychologists *personnel psychologists*?
2. From what you have read so far, how could a person who does not want to work closely with people still have a career in industrial and organizational psychology?
3. Approximately 52 percent of I-O psychologists are men, and 48 percent are women. (No data are available for people who are nonbinary.) What interpretation do you make of this finding?
4. Suppose an I-O psychology professor spends one year studying the impact of a new stress-reduction program on worker productivity and health and finds out the program accomplishes nothing. Explain whether the professor should try to publish those results.
5. Lillian Gilbreth is said to have come up with the idea of placing shelves on the inside of refrigerator doors. What kind of contribution has that been to society?
6. Why do you think it has been said that human resource management (HRM) is the sister to industrial and organizational psychology?
7. Search the Internet including job boards for job openings for “industrial and organizational psychologist.” What conclusion do you reach from your search?
8. Imagine yourself as a supervisor of entry-level workers. How might you use the Hawthorne effect to improve the productivity of group members?
9. What do you think of the ethics of a person who wants to offer psychological services to the public and uses the title *workplace consultant* to avoid the hassle of becoming a licensed psychologist?
10. One head of a human resources consulting firm said she is proud that her consultants tell clients what they need to hear rather than what they want to hear. How does her statement fit in with the ethics of consulting?

## Applying Industrial and Organizational Psychology Concepts: Public Perception of Industrial and Organizational Psychology

A useful perspective in studying industrial and organizational psychology is to obtain some idea about how people perceive, or have even heard of the field. Get in touch with six working or retired people by phone, text, email, or in-person and ask these people one or two of the following questions: “What is the field of industrial and organi-

zational psychology all about?” “What does an industrial and organizational psychologist do?” After you have collected your data, what conclusion do you reach about the public perception of industrial and organizational psychology? To what extent do you think the field has an image problem?

## CASE PROBLEM: Psychologist Danielle Wonders What to Do

Industrial and organizational psychologist Danielle is a member of a small firm of consulting psychologists. A basic activity of the firm is to prepare psychological evaluations of job candidates for clients. The evaluations are based on both psychological test results and interview impressions. The completed evaluation reports are sent online to the client, who uses the evaluation as one input in deciding whether to make a job offer to the candidate. The evaluation report is usually studied by the hiring manager, an HR specialist, and often the CEO. Clients vary considerably with respect to how much weight they place on the evaluation.

Today Danielle is interviewing Jeff, a candidate for a project manager position at a turbine (giant windmill) manufacturer. Danielle greeted Jeff, and then commented, “I see that you scored in the 95th percentile on the general mental ability test. How have you used this exceptional intelligence in your career so far?”

Jeff replied, “Thanks for the compliment. I have found that my ability to understand complex ideas and sort through data is very useful in project management. As a project manager, you have to sort through dozens of variables almost at the same time. The mantra of a project manager is to get the project done on time, within budget, and with a minimum number of errors.”

Danielle thought to herself that Jeff appears to make good use of his problem-solving ability. She then said to Jeff, “I noticed that you scored in the 90th percentile on the personality trait called agreeableness. Do you think you have a problem in being too nice to people, just to avoid conflict?”

Jeff responded, “I think that the test score might have misread my true level of agreeableness. I can be as nasty as anybody when I disagree strongly with someone.”

Danielle then asked, “Give me an example of a disagreement you had with another worker in the last few months and how you handled the disagreement.” Jeff then said, “An engineer told me that we should use metal blades on the outdoor component of a home air-

conditioning unit. I told the engineer that he was way off base and probably never lived in a northern climate. Metal rusts quickly in a moist climate, so we should use plastic blades. The engineer seemed to be taken aback by my comment, but I think she knew I was right.”

Another of the many questions Danielle asked was, “Jeff, there are probably several candidates for this attractive project manager position. What value do you think you will bring to the company that the other candidates will not offer?”

Jeff replied, “I thought you might ask me that question. My answer is simply that a project manager is expected to consistently produce good results on time. I am a standout in this regard.”

The interview continued for another 30 minutes, with Danielle asking Jeff a variety of questions. Danielle was generally impressed with Jeff’s suitability for the position, yet she had a vague recollection that she had met Jeff in the past. At the moment, Danielle was reviewing her notes to begin writing her report, a memory of Jeff surfaced. She recalled that a neighbor of hers who was entertaining Jeff at her apartment called 911 because Jeff was physically abusing her. Danielle had left her apartment to see what the noise was all about with her friend, Jeff, and two police officers.

Danielle then thought about her obligation to the client and to her profession. She pondered whether her old recollection of Jeff’s behavior should influence her report. Danielle reflected, “I need to think about this scenario for a while. Maybe I should talk to the head of my firm.”

### Case Questions

1. In what way does this case relate to the ethics of an industrial and organizational psychologist?
2. How much should Danielle’s old recollection about the 911 call influence her evaluation of Jeff?
3. Based on only the interview information about Jeff, explain whether you would recommend him for the project manager position?

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  26. Matthew Schieltz, “Organizational Consultant Code of Ethics,” *Chron* (www.smallbusiness.chron.com), 2022, pp. 1–2.

