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CHAPTER

1

The Rise and Promise of Applied Psychology in the 21st Century

Stewart I. Donaldson

Dale E. Berger

Claremont Graduate University

Profound changes are occurring throughout the world in the new age of rapidly advancing information technology and globalization. The need for theory and research-based applications of the social sciences has never been greater, and is likely to grow even stronger as the 21st century unfolds. At least on the surface, applications of the social science discipline of psychology seem to be far outpacing other social sciences in terms of growth and impact on human welfare and social betterment. This volume will take you beneath the surface to discover important ways that psychology is growing as it continues to mature as a discipline and profession.

PSYCHOLOGY COMES OF AGE

Psychology has been extraordinarily successful at attracting the next generation of social scientists into the discipline. The growth of interest in psychology during the past three decades is most striking when we compare psychology to our sister social science disciplines of sociology, political science, and economics. Figure 1.1 shows the number of bachelor's degrees granted by year from 1970 to 2000 by discipline. Although there were fluctuations over this 30-year period, in 2000 psychology's sister disciplines conferred about the same number of bachelor's degrees as they did in 1970.

The growth in psychology as an undergraduate major is striking. In sharp contrast to the other social science disciplines, the number of bachelor's degrees conferred in psychology more than doubled, from 33,679 in 1970 to 74,060 in 2000 (U.S. Department of Education, 2005). Furthermore,

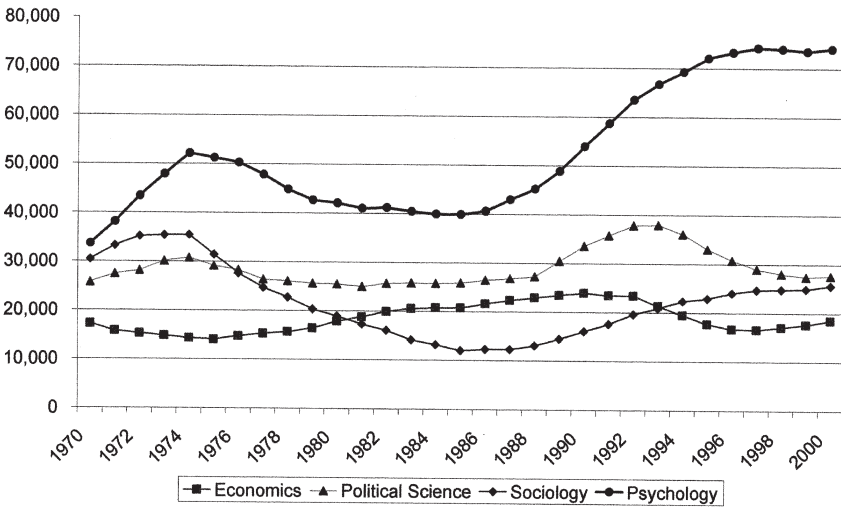


FIG. 1.1. Bachelor's degrees by year by discipline (USA).

the most recent data available show there were 76,671 bachelor's degrees awarded in psychology in 2002, the most ever, while the sister disciplines remained stable. This growth represents a remarkable achievement for the discipline of psychology, and it presents the discipline with an imposing opportunity. Each year in the past decade has produced 70,000 or more new college graduates with psychology degrees in the United States alone.

The success of psychology is even more remarkable when we consider graduate training. Again, our sister disciplines have no more than held their own over the past 30 years, with only modest fluctuations. In sharp contrast, Fig. 1.2 shows that the number of master's degrees each year in psychology has nearly tripled, rising from 5,158 in 1970 to 14,465 in 2000. In 2002, this number rose to 14,888 (U.S. Department of Education, 2005).

A similar pattern is seen in Fig. 1.3, which shows the number of doctorates granted per year (U.S. Department of Education, 2005). While our sister disciplines have not grown over the past 30 years, psychology has more than doubled the number of people entering the profession at the doctorate level each year. In recent years, more than 4,000 people earned doctoral degrees in psychology each year.

EMPLOYMENT TRENDS

Where do all these new psychology graduates find employment? Is the old stereotype true, that education in psychology is not practical, and typically leads to low-paying jobs and career paths? Does a degree in psychology

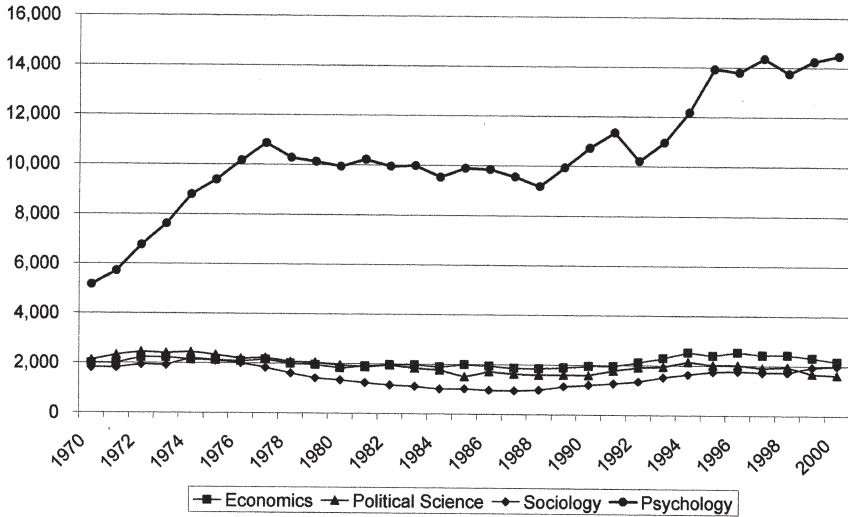


FIG. 1.2. Master's degrees by year by discipline (USA).

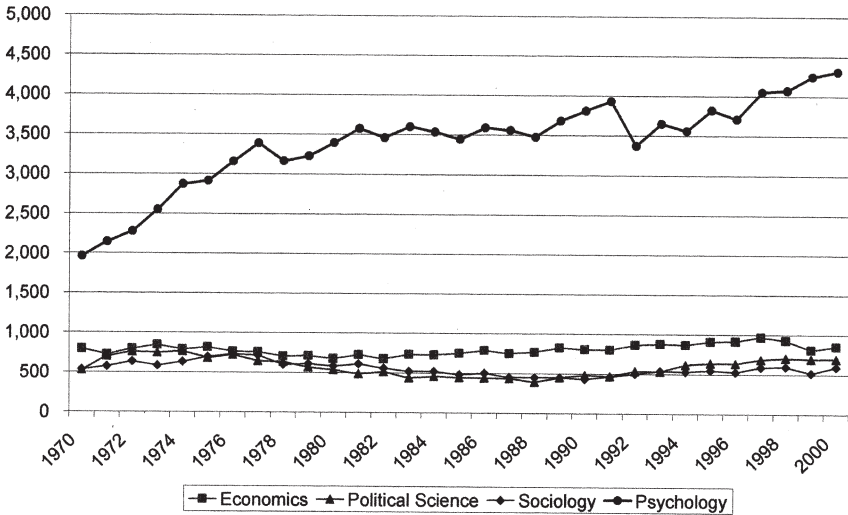


FIG. 1.3. PhD degrees by year by discipline (USA).

limit you to working in traditional counseling and mental health care service jobs and settings? Do PhD-level psychologists trained in the research areas only teach, write, and conduct research? The chapters in this volume provide compelling evidence that these old stereotypes of psychology are outdated and highly inaccurate. You will read about numerous ways that psychology majors now apply their education.

One special focus of this volume is identifying and describing personally rewarding and lucrative career opportunities that involve applying the science of psychology. Approximately 60,000 new psychology graduates, or about 80% of those who earn bachelor's degrees in psychology in the United States, enter the workforce each year (Fennell, 2002). Only 25% of these new graduates report that they are working in psychology or a closely related field. This fact suggests that every year approximately 45,000 new psychology graduates apply their education and skills across a wide range of occupational settings outside of jobs traditionally associated with psychology:

- 41% in for-profit organizations
- 18% in federal government
- 11% in nonprofit organizations
- 10% in state and local government
- 7% in universities
- 13% in other educational organizations (Fennell, 2002).

There is also a trend toward more diverse careers applying the science of psychology at the graduate level. Although it remains true that the majority (60%) of PhD-level psychologists are trained and work in the traditional mental health service areas of clinical, counseling, and school psychology, many more of the other 40% who are trained in the research areas (e.g., social, personality, developmental, organizational) choose careers in applied settings rather than university faculty positions (Fennell, 2002). For example, in 1970 only 30% or approximately 600 new PhD-level research psychologists reported working outside the university in applied positions. By 2000, these numbers swelled to more than 2,100 as approximately 50% of new PhDs in research psychology obtained applied positions over faculty positions.

In summary, as psychology has blossomed as a discipline and profession over the past three decades, far outpacing our closest sister disciplines, students trained in psychology have found opportunities to apply their skills in many new ways toward the betterment of society and human welfare. Opportunities for students entering the field of psychology have never been greater than today.

APPLIED PSYCHOLOGY

It is clear that the field of psychology has grown and changed markedly over the past generation. The field is now in the position of enjoying a powerful flow of undergraduates who are eager to develop careers where they

can use their training and follow their interests in psychology. The extraordinary growth of applied psychology, especially in applied areas of business, government, law, health, prevention, social change, and education, signals a momentous change in the role of psychology in society. The most prominent professional associations of psychologists have taken note of this change, and now commit significant time and resources to further the development of applied psychology.

The oldest international association of psychologists, the International Association of Applied Psychology (IAAP) continues to grow and now boasts more than 1,500 members from more than 80 countries. IAAP continues to be a global leader in sponsoring events and activities to fulfill its mission of promoting the science and practice of applied psychology, and facilitating interaction and communication about applied psychology around the world (see <http://www.iaapsy.org>). Additionally, the largest American psychological professional organizations have developed key initiatives aimed at elevating the profile and impact of scientific psychology in society. For example, the Human Capital Initiative and the Decade of Behavior are two notable initiatives that illustrate this new energy and value that has been placed on applying psychology to promote human welfare and achievement in society (American Psychological Association, 2005c; American Psychological Society, 2004).

In 1990 the American Psychological Society (APS) convened a Behavioral Science Summit with representatives from 65 psychological science associations, a group that eventually grew to include more than 100 organizations. These organizations unanimously endorsed the development of a national research agenda that would help policymakers set funding priorities for psychology and related sciences. The result was 'The Human Capital Initiative,' which outlined six areas of broad concern where psychological science could make substantial contributions:

- Productivity in the work place
- Schooling and literacy
- The aging society
- Drug and alcohol abuse
- Health
- Violence

Each of these areas presents issues that are fundamentally problems of human behavior. The Human Capital Initiative embraced the goal of coordinating efforts to apply social science to address these fundamental problems that transcend boundaries. A premise is that to achieve the goal of maximizing human potential, we need to know in scientific terms how peo-

ple interact with their environment and each other—how we learn, remember, and express ourselves as individuals and in groups—and we need to know and understand the factors that influence and modify these behaviors. This effort has motivated an agenda for basic research and funding policies, and it has supported applications of psychological science outside of the university.

More recently, the years of 2000–2010 have been designated as the Decade of Behavior. Virtually all of the same organizations plus many international organizations are participating in this enterprise. The Decade of Behavior is a multidisciplinary initiative to focus the talents, energy, and creativity of the behavioral and social sciences on meeting many of society's most significant challenges. Behavioral and social scientists are encouraged to bring their research results forward to help inform the public and the public policy process about the Decade's five major themes:

- Improving health
- Increasing safety
- Improving education
- Increasing prosperity
- Promoting democracy

The goals of this initiative are to educate the public about the importance and relevance of behavioral and social science research, to translate research findings into public policy, to generate new knowledge relevant to current problems, and to recruit the next generation of scholars into the behavioral and social sciences (APA, 2005c).

In recent years, the American Psychological Association (APA) and American Psychological Society (APS) have also developed activities and initiatives to help students understand the diverse opportunities that now exist within psychology (APA, 2005b; Romero, 2003). APA regularly features articles and information about applied psychology graduate training at both the master's and doctoral level on their Web site (APA, 2005a). Table 1.1 displays APA's growing list of graduate programs that specifically train scientific psychologists for nonacademic careers.

Students considering a career in applied psychology often report that it is very difficult to identify and understand the specific career and job opportunities that exist in applied psychology. After all, unlike most professions, there are very few job ads with the obvious title of "Looking for an Applied Scientific Psychologist." APA has recently engaged in a project to help address this problem. The Interesting Careers in Psychology for Non-

TABLE 1.1
Nonacademic Careers for Scientific Psychologists:
Graduate Programs in Applied Psychology

Applied Cognition

Claremont Graduate University
George Mason University
Georgia, The University of
Maryland–College Park, University of
Missouri–Columbia, University of
Oklahoma, University of

Applied Developmental Psychology

Boston College
Bryn Mawr College
Claremont Graduate University
Connecticut, University of
Fordham University
George Mason University
Georgia State University
Guelph, University of
Illinois–Urbana-Champaign, University of
Houston, University of
Maryland–Baltimore County, University of
Memphis, University of
Miami, University of
Nebraska–Omaha, University of
New Orleans, University of
Notre Dame, University of
Peabody College, Vanderbilt University
Portland State University
Stanford University
Tennessee, University of
Tufts University
York University

Applied Experimental Psychology

New Orleans, University of
Nevada–Las Vegas, University of
Portland State University
Southern Illinois University at Carbondale

Applied Industrial/Organizational Psychology

Claremont Graduate University
George Mason University
Georgia, The University of
Portland State University
San Diego State University
Oklahoma, University of

(Continued)

TABLE 1.1
(Continued)

Applied Social Psychology

Brigham Young University
 British Columbia, University of
 City University of New York Graduate School
 Claremont Graduate University
 Colorado State University
 Connecticut, University of
 George Washington University
 Guelph, University of
 Iowa State University
 Kentucky, University of
 Loyola University, Chicago
 Miami University of Ohio
 Missouri-Columbia, University of
 New Mexico State University
 Northern Illinois University
 Oklahoma, University of
 Peabody College, Vanderbilt University
 Portland State University
 St. Louis University
 Southern California Medical School, University of
 Syracuse University
 Wayne State University
 Windsor, University of
 York University

Program Evaluation

Claremont Graduate University
 San Diego State University

Academic Scientific Psychologists project begins with the following question:

True or False? The only career option for a scientifically trained psychologist is a faculty position in a college or university.

The answer is a resounding False!

In this project, APA project members have produced an *Interesting Careers in Psychology* series to illustrate the various skill-sets and expertise that scientifically trained psychologists possess which are also highly valued by employers outside of academe (APA, 2005b). “The non-traditional career paths represented by these personal success stories illustrate the different types of unique contributions made by scientific psychologists in many different employment settings” (APA, 2005b). Table 1.2 presents occupations

TABLE 1.2
Nonacademic Careers for Scientific Psychologists:
Interesting Careers in Psychology

- Acquisitions Editor
 - Research Psychologist in a Medical School
 - Research Director for a Non-Profit Organization
 - An Experimental Psychologist in a Behavioral Science Research Firm
 - Medical Error Consultant
 - A Social Psychologist in Rehabilitation Technology
 - Psychology Emerges in a Multimedia World
 - Engineering Psychology in Research and Development
 - Becoming a Science Writer
 - Technology Consultant in the Telecom Industry
 - Social Science Analyst in the Public Sector
 - Research Psychology at Microsoft
 - Human-Computer Interface Designer
 - Cognitive and I/O Psychologists in the Technology Industry
 - Highway Safety Research Analyst
 - Policy Scientist as an Independent Consultant
 - International Market Research Consultant
 - Human Factors Expert
 - Statistical and Methodological Consultant
 - A Psychologist in the White House
 - Police Psychology in the Federal Government
 - Clinical Neuropsychopharmacologist
 - Market Research Consultant
 - Human Factors Psychologist in Aviation
 - Academic Research Administrator
 - Science Museum Education and Research Specialist
 - Chemical Senses Scientist
 - NASA Research Scientist
 - University Provost
 - NASA Research Psychologist
 - Animal Programs Psychologist
 - Design Psychologist
 - Foundation Executive
 - A Forensic Psychologist in the FBI
 - Federal Regulatory Officer for Protection of Human Subjects
 - Human Resources Research Organization
 - Corporate Investment Strategist for the Military
 - Federal Drug Science Specialist
 - Executive Search Consultant
 - Organizational Development Consultant
 - A Neuropsychologist Prospers in Pharmaceuticals
 - Trial Consultant
 - Policy Scientist for a Federal Agency
 - Aviation Human Factors Practitioner
 - Expert Witness in Employment Discrimination Cases
 - Psychology Meets Philanthropy
-

and interviews that are posted on the APA applied psychology Web pages as part of this project (see http://www.apa.org/science/nonacad_careers.html). These interviews provide excellent examples and information about how to develop a career in applied psychology.

Claremont Graduate University (CGU) recently completed a project along these same lines to get even more specific about job titles and organizations that employ graduates trained specifically for careers applying the science of psychology (see <http://www.cgu.edu/pages/675.asp>). CGU is known as one of the pioneer institutions with more than three decades of experience in providing applied psychology graduate programs across a range of domains (e.g., social, organizational, cognitive, developmental, human resources, and program evaluation). The Claremont Alumni Project involved identifying alumni Web pages to determine their current job title and employer. Again, the purpose of this project was to provide specific examples of job and career possibilities for those trained in applied psychology. A sample of jobs held by Claremont Graduate University alumni is presented in Table 1.3. This project and the various projects described above represent just a few examples of exciting developments that are leading to a better understanding of the growing opportunities for careers for psychologists outside of clinical and traditional academic settings.

DEEPENING OUR UNDERSTANDING OF APPLIED PSYCHOLOGY

The trends and developments described earlier set the context for the main event. The purpose of this project and volume is to hear directly from some of the individuals responsible for advancing scientific psychology and promoting its growth, to learn their views about the progress and promise of using scientific psychology to promote human welfare and social betterment throughout the 21st century.

To accomplish this goal, the editors of this volume invited a wide range of psychologists to Claremont to participate in a symposium on "*The Rise of Applied Psychology: Rewarding Careers and New Frontiers for Improving the Human Condition.*" The 2nd Stauffer Symposium on Applied Psychology at Claremont Graduate University was a smashing success, with more than 465 participants gathering on a beautiful Southern California day in the newly renovated Garrison Theater. Guests from San Diego to Seattle and from Santa Barbara to New York came to hear about how psychological science is now being used to improve many aspects of American society, as well as to prevent the spread of HIV and other social problems in many other parts of the world. Participants learned about classic and cutting-edge work in areas such as self-efficacy-based programming via the mass

TABLE 1.3
A Sample of Job Titles of Claremont Graduate
University Psychology Alumni Working in Nonacademic Settings

Leadership Positions

- President (former), University of New Hampshire
- Associate Vice Chancellor, University of North Carolina, Chapel Hill
- Provost, Chief Academic Officer, Azusa Pacific University
- Dean & Chair of Psychology, Claremont Graduate University
- Vice President, Ethan C. Eldon Associates, Inc.
- President & Co-founder, Oregon Center for Applied Science
- Senior Vice President, Moore & Associates, Bellevue, WA
- Regional Director, Providence Health System, Portland, Oregon
- Chair & Professor of Psychology, Whittier College
- Director of Care Management, Kaiser Permanente
- Associate Vice President, C.H. Dean & Associates
- CEO and Owner, The Advocacy and Learning Associates
- President, Freedom Adult Foster Care
- Vice President, Organizational Development, Banco Santiago
- Senior Principal and Head Regional Health Care, William M. Mercer, Inc.
- President, Coffin, DeLao & Associates
- Senior Vice President of Human Resources, Associated Securities Corp.
- Founder & Director, Health Horizon
- President, Foundation for Behavioral Health
- Director of Institutional Research, University of La Verne
- Owner, Sun Publishers
- Director, Pacific Institute for Research and Evaluation
- President, Lilian Abrams, Ph.D. & Associates, Passaic, NJ
- CEO, Metro Dynamics, Inc.
- Director, Neurobehavioral Outpatient Clinic, John Hopkins University
- Director of Research Operations, Maritz Marketing Research
- President, Justice Policy Research Corporation
- President, Human Resource Software
- Owner, Visual Realization Consulting
- Director of Consulting Services, Lodestar Management/Research
- CEO and Founder, Naseehah Associates
- Executive Director, Claremont Information and Technology Institute
- Director of Outcome Research/Professor, Kessler Institute for Rehabilitation Research
- Principal and Managing Director, Applied Research-West, Inc.
- Executive Director, Information Technology, Loyola Marymount University
- Chief Technical Officer, Catenas, Inc.
- Executive Director, Los Angeles County Mental Health
- Chairperson & President, Development, Legacy Interactive, Inc.
- Director of Psychotherapy Program, VA Medical Center
- Chair, Department of Psychology, Vanguard
- Director, OCC Transport
- President, MGP Enterprises, Inc.
- President & Founder, Momentum Market Intelligence (MMI), Portland, Oregon
- Executive Director, Creative Alternative Learning
- Director, North West Government
- President, McCoy Productions
- Interim President, Earlham College

(Continued)

TABLE 1.3
(Continued)

Leadership Positions (cont.)

- Co-Owner, Profile Associates
- Chief Executive Officer, Media Integration, Inc.
- President, St. Croix Consulting Services
- Distinguished Chair of Psychology & Professor, Grossmont College
- President, Nofsinger Strayer Consulting, Seattle, WA
- Chair & Professor of Psychology, Santa Barbara City College
- Owner, Network Personnel Service, Hermosa Beach
- Executive Director, Lanterman Developmental Center, Pomona, California
- Associate Dean of Administration & Professor, Rosemead School of Psychology
- Director of Human Resources, the Clorox Company, Oakland, CA
- Chief Executive Officer, Chess Kings International
- Owner, Pool Service Technicians
- Chief Operating Officer, Rose Hills Company
- Director, Development Research & Programs, Inc.
- President & Owner, Frantz Cleaners
- Chief Information Officer, Franklin University
- Director of Human Resources, Summa Industries
- Program Director, Small Business Innovation Research, NIH
- Senior Vice President, Leiberman Research Worldwide
- Chief People Officer, Harmonic Communications Corp.
- President, Labor Temps, Inc.
- Director of Administrative Computing, Harvey Mudd College
- Executive Vice President, Mental Health Resource Center
- Founder & Senior Principal, Learning in Action Technologies, Inc.
- Co-owner, Cenpro Consulting
- President, G.H. Smart & Company Management Consulting Firm
- Director, Health Outcomes Management Group, Reimbursement Dynamics, Inc.
- Department Chair, Management & Human Resources, College of Business, California State Polytechnic University, Pomona
- Department Head, House Ear Institute: Advance Hearing Science
- Project Manager, Rockwell International Corporation, Paradise, CA
- Assistant Director, Senior Meals and Services Inc.
- Manager, Health Research, Health Net
- President/Partner, Nofsinger Strayer Consulting, Seattle, WA
- CEO, Squire Consulting
- President, Travis Research Associates, Inc., Westlake Village, CA
- Director, PsyberMetrics, Langhorne, PA
- Project Manager, University of Washington
- Chair of Privilege and Tenure Committee/Professor, University of Colorado
- Special Project Manager, Premier Designs, Inc.
- Chief Executive Officer, Context Machines
- Vice President of Marketing, Dynaptics
- Manager, Orange County Office of the District Attorney
- Project Manager, American Marketing Services, Irvine Valley College
- Manager, KPMG Peat Marwick Foundation, Inc.
- P.O.S., Training Manager, Robinsons-May
- Manager, Human Resources, Red Herring Communication

(Continued)

TABLE 1.3
(Continued)

Leadership Positions (cont.)

- Manager, Participation/Analysis, National Broadcasting Company
 - Training & Recruitment Manager, Nabisco Biscuit Company
 - Program Manager, Office of Juvenile Justice and Delinquency Prevention, U.S. Department Justice, Washington DC
 - Associate Director, National Asian Pacific Center of Aging
 - Managing Director, RHR International Management Consulting, Los Angeles, CA
 - Program Director, Sonoma State University
 - Managing Director, Northern California, Applied Research-West, Inc.
 - Manager of Training & Development, Babson College
 - Deputy Director, Delaware Drug and Alcohol Abuse Division
 - Program Manager, HR, Southern California Edison
 - Associate Director of Health Sciences, California State University, Long Beach
 - Assistant Project Director, Scripps College
 - Project Manager, Riverside County Sheriff's Department
 - Program Manager, South Central Los Angeles Regional Center for Persons with Developmental Disabilities, Inc.
 - Deputy Director, J. Paul Getty Museum
 - Business Line Analysis Manager, Kaiser Permanente
 - Information Systems Manager, Stanford University
 - Senior Project Director, Market Probe, Inc.
-

Applied Research

- Research Social Scientist, Pacific Northwest Research Station, Anchorage, Alaska
 - Human Factors and Ergonomics Specialist, IAC Industries
 - Research Psychologist, Stanford University
 - Research Psychologist, Behavioral Health Department Mental Health Service, Ventura County, California
 - Researcher, Towers Perrin Global Management Consulting
 - Senior Research Planning Analyst, Pasadena City College
 - Research Technician, California State University, Northridge
 - Research Psychologist, LA County Department of Mental Health
 - Assistant Research Psychiatrist, University of California, Los Angeles
 - Research Consultant, Data Recognition Corporation
 - Research Psychologist, Navy Personnel R&D Center
 - Research Psychologist, House Ear Institute
 - Senior Research Associate, University of California, Berkeley
 - Research Assistant, UCLA Harbor Medical Center
 - Statistician, U.S. Food and Drug Administration
 - Measurement Research Evaluation Specialist, National Endowment for Financial Education
 - Senior Research Associate, Westat Research Corporation
 - Research Psychologist, National Institute of Health
 - Senior Research Assistant, University of California, Los Angeles
 - Lab Assistant, University of California, Los Angeles
 - Research Psychologist, Ventura County Behavioral Health
 - Research Associate, DecisionQuest
 - Research Assistant, Pitzer College
 - Investigator, Los Amigos Research & Education Institute
-

TABLE 1.3
(Continued)

Applied Research (cont.)

- Senior Scientist, Mead Johnson Nutritionals, Procter & Gamble
- Research Associate, RMC Research Corporation
- Research Analyst, Los Angeles Unified School District
- Research Assistant, Institute for Research and Learning
- Research Psychologist, University of Michigan, Poverty Research & Training Center
- Research Analyst, Orange County Transit District
- Organizational Behavior Specialist, Haworth, Inc.
- Senior Statistician, J.D. Power and Associates
- Senior Research Analyst, Los Angeles Unified School District
- Research Psychologist, Pipeline Software, Inc., Newport Beach, CA
- Research Associate, Center for Mental Health Services
- Research & Evaluation Manager, California Department of Education
- Research Analyst, University of Washington
- Social Psychologist, RAND
- Research Psychologist, UCLA Integrated Substance Abuse Program
- Research Fellow, Pacific Island Development Program
- Research Psychologist, Navy Research & Development
- Senior Research Associate, Wayne Howard & Associates
- Research Associate, California State University
- Research Psychologist/Analyst, Riverside County Department of Mental Health
- Research Psychologist, San Bernardino County Office of Alcohol & Drug Programs
- Senior Research Analyst, Los Angeles Unified School District
- Senior Research Associate, UCLA Neuropsychiatry Institute
- Research Associate, Vanderbilt University
- Research Associate, Amplica, Inc.
- Research Psychologist, Parent Care
- Management & Budget Analyst, LA County Metropolitan Transport Authority
- Socio Economic Analysis, RDN, Inc.
- Health Service Research, Self-Employed
- Associate for Clinical Research, House Ear Institute
- Senior Associate, Northwest Regional Educational Lab, Oregon
- Research Psychologist, Research and Treatment Institute
- Research Psychologist, Hillview Mental Health Center

Consulting Positions

- Market Research & Consulting, Harris Interactive Corporate Headquarters
- Relocation Consultant, HR, ARCO-Atlantic Richfield Co.
- Management Consultant, Spencer Stuart Management Consulting
- Senior Consultant, Catalyst Consulting Team
- Organization Development Consultant, Palitz-Elliot and Associates
- Consultant, Custom Performance Solutions
- Consultant, Human Factors and Training
- Consultant, Accenture
- Consultant, Jorgenson HR
- Consultant, Lanterman Developmental Center, Pomona, California
- Consultant/Owner, WG Clark Company

(Continued)

TABLE 1.3
(Continued)

Consulting Positions (cont.)

- Consultant, Westbrook Health Services
 - Research Consultant, Data Recognition Corporation
 - Associate Consultant & Ergonomic Engineer, Humantech
 - Paralegal/Workers Comp Consultant, Self-Employed
 - Independent Consultant, ECCHO Consulting
 - Consulting Psychologist, Behavioral Associates
 - Trial Consultant, Self-Employed
 - Consultant, California Department of Education
-

Human Resource Positions

- Human Resource Manager, CBC Industries, California
 - Chief Recruiter, Viking Components
 - Personnel Analyst, California Department of Justice
 - Human Resources, Northrop Grumman Integrated Systems
 - Employee Relations Manager, Chiron Vision
 - Payroll Administrator, CA Commerce Bank
 - HR Placement Counselor, Kaiser Permanente
 - Personnel Manager, Toyota Motor Credit
 - Employee Services Manager, Human Resources, Glendale Community College
 - Human Resources Administrator, Unisource Worldwide
 - Staff Specialist, Jet Propulsion Laboratory (JPL)
 - Personnel Administrator, Alvarado Manufacturing Co.
 - Assistant Director, Human Resources, Citrus Valley Health Partners
 - Compensation Analyst, The Boeing Co.
 - Human Resources, PALL Medical
 - Human Resource Coordinator, R.R. Donnelley & Sons Co.
 - Human Resource Coordinator, Simulation Sciences
 - Human Resource Manager, CPC International
 - Personnel Analyst, L.A. County Sanitation
 - Senior Employee Relations Representative, Countrywide Funding Corporation
 - Research Psychologist, PERSEREC
-

media, health promotion and disease prevention, work and family balance, law and psychology, career and organizational development, the science of learning and education, child development and parenting, racial and ethnic disparities in mental health, and the power of expectations in classrooms, clinics, corporations, and courtrooms. A range of rewarding and exciting new career opportunities for those with bachelor's, master's, or doctorate degrees in psychology were also presented and discussed.

This volume aspires to share with you, and to add to, some of the lively discourse and insights about the accomplishments and prospects for the future of applied psychology. All of the symposium speakers were asked to provide a chapter for this volume that shares some of their views about

new frontiers and/or careers in applied psychology. The editors invited additional chapters from prominent psychologists working in some of the applied areas not represented at the symposium. Because there is great diversity in how psychologists approach applied psychology in their subdomains, we encouraged authors to express that diversity in how they structured and selected topics related to our theme.

FOUNDATIONS AND FRONTIERS

Philip G. Zimbardo provided us with a wonderful overview chapter (chap. 2) illustrating many ways that psychology is making a significant difference in our lives. He describes a sampling of tangible evidence that demonstrates how and why psychology matters. This chapter builds on and refers readers to the newly developed APA Web site that documents current operational uses of psychological research, theory, and methodology (its creation was Zimbardo's APA presidential initiative in 2003): www.PsychologyMatters.org.

Next, in chapter 3, Albert Bandura illustrates how one of the most well researched and supported theories in psychology today, Social Cognitive Theory, is used to address urgent global health and social problems. The foundations of social cognitive theory are described in some detail, as well as their applications to psychology-based interventions that promote society-wide changes that better the lives of millions of people in Africa, Asia, and Latin America. This chapter exemplifies the power and potential of applied psychology to improve lives on a national and global scale. Bandura presents data that demonstrate effective interventions to promote national literacy, to prevent the spread of HIV, to improve the status and quality of life of women, and to promote environment sustainability by stemming population growth.

In chapter 4, Stuart Oskamp and P. Wesley Schultz show how psychological science can be applied to prevent looming ecological disaster. They have articulated a disturbing list of current threats to global ecological sustainability. More importantly, they describe how an accumulation of sound theory and research from psychology can be used to guide important steps toward sustainability. For example, you will learn how applied behavior analysis, social marketing programs, techniques of feedback and persuasion, and capitalizing on social norms and the Theory of Planned Behavior can be used to design effective interventions, and to influence public policy in proenvironmental directions.

Robert Rosenthal examines the history and diversity of research on interpersonal expectancy effects in chapter 5. He shows how one person's expectation for another person's behavior comes to serve as a self-fulfilling

prophecy, which can dramatically affect learning in the classroom, health care services, research participants, corporate performance, and verdicts in the courtroom. This chapter illustrates how psychological science can uncover psychological principles that affect people and processes across a wide range of settings in modern society.

In chapter 6, Stanley Sue reports that racial and ethnic disparities and inequities in mental health services undermine the quality of care for African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanic Americans. After describing psychological research findings that uncover the nature of these disparities, he shows how applied psychological science can be used to provide more culturally sensitive, appropriate, and compatible mental health services. This chapter provides tangible examples of how psychological science can be used to uncover and address racial and ethnic bias and discrimination in our current health care system, overcoming methodological and conceptual problems inherent in this domain of applied psychological research.

Patricia M. Greenfield provides a useful example of how basic developmental psychology research has been used to provide cross-cultural training programs for educators (chap. 7). A major goal of the Bridging Cultures program she describes in some detail was to reduce cultural conflict between home and school. In chapter 7, you will find many grounded examples of how developmental psychological science is used to promote the well-being of students from diverse cultural backgrounds in the U.S. educational system. Finally, the chapter does an excellent job of showing the interplay between basic and applied research, and how basic developmental psychological science can be applied toward social betterment.

In chapter 8, Sherylle J. Tan and Diane F. Halpern discuss some of the challenges involved with using findings from psychological research to influence the public and public policy. In general, they argue that the public distrusts science and scientists, preferring to rely on their own personal experiences and anecdotes. The new frontier they explore in this chapter involves methods, strategies, and techniques for improving the acceptance and impact of psychological research in the public domain. The applied psychologist of the 21st century is challenged to better disseminate research findings, to build stronger partnerships with the media, to take a much stronger role in educating the public about psychological research, and to improve communication and collaboration with communities.

CAREERS

As we talk about the rise and promise of applied psychology with undergraduate students, prospective graduate students, and the next generation psychological scientists, students often wonder what kind of career options

and opportunities might exist for them in applied psychology. Therefore, in the next set of chapters, we explicitly asked the authors to help the readers understand some of the career opportunities in their domain of applied psychology. Most of the chapters begin with an overview of the research and applications in an important subarea of psychology, and then provide a discussion of ways to get involved and to develop personally rewarding careers in applied psychology.

In chapter 9, Deborah Davis and Elizabeth F. Loftus demonstrate the rapid expansion of the involvement of psychologists at all levels of legal systems in America and across the world. They show how psychologists contribute at the very fundamental level of providing research evidence to courts and legislatures to help them choose wise social policies and effective laws to facilitate the common good. They describe a wide range of activities that applied psychologists are involved in, and show rather convincingly how our legal system provides a variety of interesting, challenging, and exciting careers for young psychologists interested in applying psychology to real-life issues. This chapter reviews activities and careers that are sure to inspire others to pursue careers in psychology and law.

Howard S. Friedman, in chapter 10, shows how psychological science is used to promote health and well-being across a wide range of settings in modern societies. He emphasizes three domains where psychological science is responsible for promoting health: establishing connections between mental and physical health; changing habits and behaviors to promote health or avoid risk; and using psychological science to improve health care delivery. After exploring a wide range of research literatures and applications in these areas, career opportunities for applied health psychologists are provided. This chapter clearly illustrates many applications of health psychology, and reveals many career settings such as government organizations, medical facilities and universities, public health agencies, and businesses and private companies.

In chapter 11, Kathy Pezdek, Kenneth A. Deffenbacher, Shirley Lam, and Robert R. Hoffman dispel the common myth that cognitive psychology is concerned only with basic research that has very few links to real-world problems. In this chapter, you learn that cognitive psychology has a rich history of application, and that many cognitive psychologists work in industry, educational settings, and the private sector. For example, a significant number of cognitive psychologists are now working in the domains of forensic psychology, marketing and advertising, education, the military, and human factors. The authors do an outstanding job of illuminating career opportunities in applied settings for those interested in cognitive psychology.

Stewart I. Donaldson and Christine A. Christie discuss why the transdisciplinary profession of evaluation science offers an exciting, socially meaningful, and potentially lucrative career niche for those interested in

applying the science of psychology (chap. 12). Societies all around the globe embrace the values of accountability and professionalism, and increasingly rely on applied psychologists and other social scientists to provide professional evaluations of efforts to promote human welfare and achievement. Although the most common application of evaluation science for psychologists has been program evaluation, applied psychologists with evaluation skills have rapidly expanding opportunities to conduct policy, project, community, organizational, product, proposal, and technology evaluations. One of the unique features of this chapter is that you will learn how evaluation science can enhance the various subdomains of applied psychology (e.g., social, organizational, developmental, cognitive, health, and educational), by connecting applied psychologists more closely to a wide range of “real-world” settings.

William D. Crano discusses the value of conducting rigorous and methodologically sophisticated research on important basic and applied social issues in chapter 13. He illustrates why training in the foundations of social psychological theory and contemporary research prepares students to pursue successful careers in the academy or in applied research settings, including federal, state, and local governments and the private sector. He concludes the chapter by showing the advantages of careers that facilitate moving between basic theory and applications of social psychological principles to important societal problems.

Psychologists have a long history and impressive track record of using psychological science to improve quality of work life, human performance and productivity, and organizational effectiveness. In chapter 14, Stewart I. Donaldson and Michelle C. Bligh review some of the major theoretical, research, and practical contributions of psychological science toward improving the world of work. They also explore a range of traditional and emerging career opportunities for psychologists interested in building human strengths and promoting optimal functioning. These careers often involve applying psychological science to improve person–organization fit, teamwork, conflict resolution skills, leadership development, mentoring and executive coaching, job enrichment, career planning and development, strengths of cross-cultural and diverse workforces, work and family balance, organizational learning, and organizational development and strategic change. They conclude by emphasizing that career opportunities in these areas are likely to remain among the most intellectually challenging, personally rewarding, and financial lucrative in the evolving global and virtual workplaces of tomorrow.

Finally, Dale E. Berger has provided a chapter devoted to teaching the next generation of psychologists how to prepare for a rewarding career applying the science of psychology. In chapter 15, you learn about the career paths and reflections of psychologists who have entered a dazzling array of

careers in applied psychology. Drawing on these accounts and his personal experiences as a faculty member and administrator for an applied psychology graduate program, he summarizes implications for students and for graduate programs in psychology. He ends by arguing that it is now clear that no one is better qualified for many new and rewarding careers than someone trained to apply the science of psychology.

CONCLUDING REMARK

We believe you will come away from this volume with a new understanding of the value and opportunities that now exist for applying psychological science toward social and human betterment in the 21st century. We must acknowledge that many other chapters could have been invited and many additional important applications of applied psychology could have been included. As you read the volume, we hope you develop an appreciation that applied psychology is rapidly evolving, and has become so vast that striving for a comprehensive volume on this subject was beyond our reach. Therefore, the main goals we set for this project were to illustrate how the value of applied psychology has grown across many domains, and to facilitate a process that would allow readers to hear directly from a diverse group of distinguished psychologists who have been instrumental in promoting the growth of applied psychological science. We hope you will conclude that we have accomplished these goals, and have inspired the next generation of psychologists to at least consider joining the professional world of applied psychology, and using their psychology education, talents, and energy toward efforts to improve the human condition.

REFERENCES

- American Psychological Association. (2005a). *Non-academic careers for scientific psychologists: Graduate program in applied psychology*. Retrieved March 8, 2005, from <http://www.apa.org/science/nonacad-grad.html>
- American Psychological Association. (2005b). *Non-academic careers for scientific psychologists: Interesting careers in psychology*. Retrieved March 8, 2005, from http://www.apa.org/science/nonacad_careers.html
- American Psychological Association. (2005c). *Psychological science agenda*. Retrieved March 8, 2005, from <http://www.apa.org/science/psa/psacover.html>
- American Psychological Society. (2004). Why study psychology? *Observer*, 17(4), 31–35.
- Fennell, K. (2002, May). *Where are new psychologists going? Employment, debt, and salary data*. Presentation at the Annual Convention of the Midwestern Psychological Association, Chicago, Illinois.

- Romero, V. L. (2003). The changing image of psychology: The rise of applied psychology. *Observer*, 16(7), 27-30.
- U.S. Department of Education. (2005). National Center for Educational Statistics, Higher Education General Information Survey. Retrieved March 8, 2005, from <http://nces.ed.gov/programs/digest/d03/tables/xls/tab293.xls> and <http://nces.ed.gov/programs/digest/d03/tables/xls/tab296.xls>