

Measuring Human Capabilities: Performance Potential of Individuals and Collectives

Committee

Paul R. Sackett

Chair

Paul R. Sackett is the Beverly and Richard Fink Distinguished Professor of Psychology and Liberal Arts at the University of Minnesota. His research interests revolve around various aspects of testing and assessment in workplace, military, and educational settings. His work on issues of fairness and bias in testing includes frequently-cited 1994, 2001, and 2008 American Psychologist articles. He has long been active in the area of the assessment of honesty and integrity in the workplace. He also publishes extensively on the assessment of managerial potential and methodological issues in employee selection. He has worked with a wide variety of public and private-sector organizations on the design and evaluation of selection and training systems. He served as founding editor of the Society for Industrial and Organizational Psychology's (SIOP) journal Industrial and Organizational Psychology: Perspectives on Science and Practice, and editor of Personnel Psychology. He has served as president of SIOP, as co-chair of the Joint Committee on the Standards for Educational and Psychological Testing, as a member of the National Research Council's Board on Testing and Assessment, as chair of the American Psychological Association's (APA) Committee on Psychological Tests and Assessments, and as chair of APA's Board of Scientific Affairs. He received his Ph.D. in industrial and organizational psychology at the Ohio State University.

Georgia T. Chao

Member

Georgia T. Chao is associate professor of management at the Eli Broad Graduate School of Business at Michigan State University. She is an expert in management and cultural issues relating to China, Taiwan, Hong Kong, Australia, and the United States. She has additional expertise in generational cohort factors with respect to team and unit effectiveness. Her research interests include organizational socialization, career development, and international human resource management. She was elected to the American Psychological Association (APA) Council and currently serves on the editorial boards of the Journal of Applied Psychology, the International Journal of Selection and Assessment, and Human Resource Management Review. She is a member of the Academy of Management, APA, and the Society of Industrial and Organizational Psychology. She has an M.S. and Ph.D. in industrial and organizational psychology from the Pennsylvania State University.

Ann Doucette

Member

Ann Doucette is director of The Evaluators' Institute, director of the Midge Smith Center for Evaluation Effectiveness, and a research professor at Columbian College of Arts and Sciences at George Washington University. She has broad experience in the management, analysis, and evaluation of diverse intervention programs, the development of accountability and outcomes monitoring systems at individual and system levels; research methodology, data collection strategies, psychometric and measurement techniques, and applied statistical analysis, including both quantitative and qualitative approaches. Her expertise includes the development of performance and outcome measurement systems that target accountability, quality monitoring and outcomes for system and individual levels of intervention/care. Her work includes a specialized emphasis on measurement, which she considers fundamentally critical for evaluation practice, and a complex adaptive systems perspective. She has developed several assessment measurement approaches using Item Response Theory to generate measures having greater precision using brief, less burdensome instrumentation, which have the potential to lead to computer-adaptive applications and real-time data usage. Dr. Doucette has served on several technical advisory panels including the American Psychological Association Presidential Taskforce on Outcomes Assessment and the Taskforce on Pay-for-Performance; the American Medical Association's Physicians Consortium for Quality Improvement; The Joint Commission; Hospital-based Inpatient Psychiatric Services measures; National Committee for Quality Assurance ADHD and substance abuse measures; and the Forum on Performance Measures for Behavioral Healthcare and Related Service Systems. She has a Ph.D. in psychology from Columbia University.

Randall W. Engle

Member

Randall W. Engle is director of the Center for Advanced Brain Imaging at Georgia Institute of Technology. He is also professor of psychology at Georgia Institute of Technology. His research focuses on cognition and brain science. His interests include working memory capacity and their relationship to the concept of attention control. He is a member of the American Psychological Association (fellow), American Psychological Society (fellow), the Society of Experimental Psychologists, the Psychonomic Society, Memory Disorders Research Society, and Sigma Xi, The Scientific Research Society. He has a B.S. from West Virginia State College, an M.A. from The Ohio State University, and a Ph.D. in experimental psychology from The Ohio State University.

Richard J. Genik, II

Member

Richard J. Genik, II is director of the Emergent Technology Research Division at the Wayne State University School of Medicine, and assistant professor adjunct in the College of Engineering Department of Biomedical Engineering and School of Medicine Department of Psychiatry and Behavioral Neurosciences. Dr. Genik has served on many National Research Council committees and panels, including serving as technology subcommittee chair of the Committee on Neuroscience for Future Army Applications. Among his many areas of expertise are the use of magnetic resonance imaging and the use of fMRI to gain insight into cognitive workload in naturalistic, multitasking environments. Dr. Genik has over 130 peer-reviewed publications and 6 book chapters, including "Functional Neuroimaging in Defense Policy," which appeared in Bio-Inspired Innovation and National Security in 2010. He has a Ph.D. in physics from Michigan State University and a B.S. in applied physics from Wayne State University.

Leaetta Hough

Member

Leaetta Hough, president and founder of Dunnette Group and Chief Science Officer of HirePayoff™, is one of the world's leaders in developing innovative candidate assessment systems for high-stakes settings. She specializes in developing hard-to-measure individual difference and outcome variables, creating tools to evaluate a candidate's characteristics such as personality, interest, and cognitive ability essential for success in the workplace while mitigating adverse impact against protected groups. She co-founded Personnel Decisions Research Institute and is past president of the Society for Industrial and Organizational Psychology (SIOP) and the Federation of Associations in Behavioral and Brain Sciences (FABBS, a coalition of 22 scientific societies). She co-edited the four-volume Handbook of Industrial & Organizational Psychology and was lead author of the personnel selection chapter for the Annual Review of Psychology, as well as the biodata assessment chapter of the Handbook of Workplace Assessment: Selecting and Developing Talent. Dr. Hough authored the workplace personality assessment chapters in the International Handbook of Work & Organizational Psychology, the Handbook of Personnel Selection, the Handbook on Testing and Assessment, and both editions of the I-O Psychology volume of the Comprehensive Handbook of Psychology. Three of her articles were reprinted in Employee Selection and Performance Management, a book of articles psychologists identified as seminal publications of the last 100 years. She has a Ph.D. in Industrial and Organizational Psychology with concentrations in differential psychology, measurement, and personality from the University of Minnesota. Her work has helped shape the science and practice of Industrial and Organizational Psychology.

Patrick C. Kyllonen

Member

Patrick C. Kyllonen is senior research director of the Center for Academic and Workforce Readiness and Success at Educational Testing Service (ETS) in Princeton, N.J. The Center directs (a) ETS's Next Generation Higher Education Assessment and (b) Workforce Readiness initiatives; (c) large scale student, teacher, and school questionnaire research and development for the National Assessment for Educational Progress (NAEP) and the Program for International Student Assessment (PISA); and (d) 21st century skills assessment and development research. Before joining ETS in 1999, he was technical director of the Air Force Research Laboratory's Manpower & Personnel Division. He received The Technical Cooperation Program (TTCP) Achievement Award for the design, development, and evaluation of the Trait-Self Description (TSD) Personality Inventory used internationally. He is author (with S. Irvine, 2001) of *Generating Items for Cognitive Tests: Theory and Practice*, *Learning and Individual Differences: Process, Trait, and Content Determinants* (with P. L. Ackerman & R.D. Roberts, 1999), and *Extending Intelligence: Enhancement and New Constructs* (with R. Roberts and L. Stankov, 2008). He is an APA and AERA Fellow, and has served on the editorial boards of *Intelligence* and *Human Factors*. Previously, he participated as a member of two National Research Council planning committees: *Defining Deeper Learning* and *21st Century Skills and Workshop on Assessment of 21st Century Skills*. He has a B.A. from St. John's University and Ph.D. from Stanford University.

John J. McArdle

Member

John J. McArdle is professor of psychology and gerontology at the University of Southern California. Previously, he was a faculty member at the University of Virginia where he taught *Quantitative Methods* from 1984-2005. He was also the director of the Jefferson Psychometric Laboratory, and a visiting fellow at the Institute of Human Development at University of California at Berkeley. Currently, he is the director of the ongoing National Growth and Change Study (NGCS), which is a longitudinal study of cognitive changes over age in the entire United States. His research has focused on age-sensitive methods for psychological and educational measurement and longitudinal data analysis, and includes published work in the area of factor analysis, growth curve analysis, and dynamic modeling of adult cognitive abilities. He previously served on the National Research Council committee on Institutional Review Boards, Surveys and Social Science Research. He has a B.A. in psychology and mathematics from Franklin and Marshall College in Pennsylvania. He has both an M.A. and Ph.D. in psychology and computer sciences from Hofstra University in New York, and received his Post-Doctoral training in psychometrics and multivariate analysis at the University of Denver in Colorado.

Frederick L. Oswald

Member

Frederick L. Oswald is professor of industrial and organizational psychology at Rice University. His expertise and published research is about personnel selection, specifically how to measure, model and predict performance, turnover and satisfaction from both individual-level and group-level characteristics (ability, motivation, interests, race/ethnicity) within various employment, military and educational settings. He also publishes methodological research dealing with meta-analysis, measure development and psychometrics. He currently is the Associate Editor of the Journal of Management, Psychological Methods, and Research Synthesis Methods, and he also serves on seven editorial boards. He is a fellow of the American Psychological Association, American Psychological Society, and the Society for Industrial and Organizational Psychology. He received his Ph.D. and M.A. in industrial-organizational psychology from the University of Minnesota and his B.A. in psychology from the University of Texas at Austin.

Stephen Stark

Member

Stephen Stark is an associate professor in quantitative methods and industrial and organizational (I/O) psychology at the University of South Florida. His research focuses on the development and application of psychometric methods to practical problems in industrial, organizational, and educational settings. He works to develop and improve tests measuring constructs such as job performance, personality, and cognitive ability. His current research focuses on improving the measurement of non-cognitive constructs, such as personality, in high stake environments via alternative formats for administering items; computerized adaptive item selection; and the use of appropriateness measurement methods to detect unusual responding (“faking” in personality assessments). He is a senior fellow at the Army Research Institute Consortium Research Fellows Program, a member of the Society of Industrial and Organizational Psychology, a member of the American Psychological Association, and a member of the National Council on Measurement in Education. He has a B.S. in physics from the University of New Orleans and a A.M. and Ph.D. in industrial and organizational psychology from the University of Illinois at Urbana-Champaign.

William J. Strickland

Member

William J. Strickland is president and chief executive officer of the Human Resources Research Organization (HumRRO) in Alexandria, Virginia. Before his appointment, he spent over 10 years as a HumRRO vice president, directing its Workforce Analysis and Training Systems Division. Before joining HumRRO, he completed a 26-year career in the United States Air Force and retired as a colonel. He is a fellow of the American Psychological Association (APA), a past president of its Division of Military Psychology, and served for six years as the Division's representative on APA's Council of Representatives. He currently serves on APA's Policy and Planning Board, and he began a three-year term in January 2013 as a member-at-large on the APA Board of Directors. He has been a member of two previous National Research Council committees including the Committee on FAA Aviation Safety Inspector Staffing Standards. He is a graduate of the United States Air Force Academy and earned a Ph.D. in industrial and organizational psychology from Ohio State University.