

## **MEASURING HUMAN CAPABILITIES: Performance Potential of Individuals and Collectives**

Board on Behavioral, Cognitive, and Sensory Sciences  
Division of Behavioral and Social Sciences and Education

National Research Council

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### **Workshop on New Directions in Assessing Individuals and Groups April 3-4, 2013**

#### **Participant Biographies**

##### **Invited Speakers**

###### **Leslie DeChurch**

**(Group Composition, Day Two, Afternoon)**

Leslie DeChurch is associate professor of organizational psychology at the Georgia Institute of Technology. Her research interests include leadership and teamwork in organizations. She leads the Georgia Tech Developing Effective Leaders, Teams, and Alliances research group, which conducts high-impact scientific projects that yield novel insights into effective organization with real-world impact. Some current questions include: what makes effective team leaders, how do teams successfully collaborate across boundaries, and how are leadership and team dynamics sustained in virtual organizations? Her research has appeared in top journals including the Journal of Applied Psychology; Journal of Management; Leadership Quarterly; Journal of Applied Social Psychology; Group Dynamics: Theory, Research, and Practice; Small Group Research; Educational and Psychological Measurement; and the International Journal of Conflict Management. She serves on the editorial boards of the Journal of Applied Psychology, Small Group Research, Journal of Occupational and Organizational Psychology, and the Journal of Business and Psychology. In 2011 she was awarded a National Science Foundation (NSF) CAREER award to study leadership in virtual organizations, and in 2012 she was awarded an NSF Research Coordination Network project (with Noshir Contractor) to leverage big data for the advancement of computational social science. She is currently working in the areas of leadership networks and multi team systems and teaching social psychology and social networks. She earned a B.S. in environmental science from the University of Miami, Coral Gables and a M.S. and Ph.D. in industrial and organizational psychology from Florida International University in Miami.

###### **Gerald (Jay) F. Goodwin**

**(Sponsor's Perspective, Day One, Morning)**

Gerald (Jay) F. Goodwin is Chief of the Foundational Science Research Unit at the U. S. Army Research Institute for Behavioral and Social Sciences (ARI). In addition to overseeing ARI's basic research program, he is responsible for two research teams focused on emerging and developing concepts within the applied research program: development of cross-cultural competence and assessing and developing unit cohesion. His research expertise is in leadership, team and organizational effectiveness, and cultural factors in Joint, Interagency, and Multinational contexts. He has led or overseen projects investigating shared cognition in command teams, leadership in multi-team systems, team staffing and composition, leader development and training, and cultural factors in interpersonal interactions. He was the program manager for ARI's applied

research program 'Teams in Complex Organizations' for four years, served one year on assignment to ARI's Office of the Director to lead strategic planning for the institute, and was detailed to the Department of Defense Comprehensive Review Working Group as a research analyst and the lead writer the DOD report assessing the impact of repeal of "Don't Ask, Don't Tell." He transitioned to his current position after spending three years leading basic research in leader development, team and organizational effectiveness, and cross-cultural issues. He is a scientific advisor to several Multidisciplinary University Research Initiative (MURI) grants investigating cognition in organizations and cultural factors in negotiation and collaboration. He is currently investigating the application of network science principles to the understanding of team and organizational effectiveness; developing an integrative framework focused on individual, temporal, cohort, organizational, and industry effects on individual career patterns; and improving the conceptualization and measurement of interdependence and team processes in teams and multi-team systems. Dr. Goodwin received his M.S. and Ph.D. in Industrial/Organizational Psychology from the Pennsylvania State University. He is a member of the Society for Industrial and Organizational Psychology, the American Psychological Association (APA), and APA Division 19 (Military Psychology).

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**Earl Hunt****(Measuring Individual Differences, Day Two, Morning)**

Earl Hunt is Emeritus Professor of Psychology at the University of Washington. He received his B.A. from Stanford and his Ph.D. from Yale, in 1960. He has specialized in the study of cognition in humans, including computer and mathematical modeling, and especially concentrating on individual differences in cognitive competence, intelligence for short. He has also participated in the development of computer-based expert systems for teaching high school physics. He has published 7 books and over 200 articles, reviews, and technical reports related to cognition. One of his books, *Will We Be Smart Enough? Cognitive Capabilities of the Coming Workforce* (1995), received the American Psychological Association (Division 1) William James Book Award for 1996. Hunt is a past president of the Association for Computers in Psychology and of the International Society for Intelligence Research (ISIR). He has been editor of two major journals in the field; *Cognitive Psychology* and *Journal of Experimental Psychology: General*. He received the ISIR Distinguished Lifetime Achievement Award in 2008, and the American Psychological Association's James Cattell McKean Award for Lifetime Achievements in Scientific Psychology and its Applications in 2011.

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**Michael J. Kane****(Emerging Constructs and Theory, Day One, Afternoon)**

Michael J. Kane is a Professor of Psychology at the University of North Carolina at Greensboro and a Fellow of the Association for Psychological Science. He earned his B.A. in Psychology from Haverford College in 1989, and his Ph.D. in Psychology from Duke University in 1995, and he has served as Associate Editor for *Cognitive Psychology* and *Memory & Cognition*, and as Consulting Editor for the *Journal of Experimental Psychology: General*, *Memory & Cognition*, and *Frontiers in Cognition*. Kane's collaborative research on individual differences in working memory and executive control has been funded by NIMH (as PI), AFOSR (as co-PI), and ONR (as co-PI), and this research has been published in high-impact journals as *Psychological Science*; *Psychological Bulletin*; *Journal of Experimental Psychology: General*; *Journal of Experimental Psychology: Learning, Memory, and Cognition*; *Trends in Cognitive Sciences*; and *Psychonomic Bulletin & Review*; it has also been widely cited in the scientific literature (12 of his publications have more than 200 Google Scholar citations each, and his body of work has been cited nearly 5000 times since 2008). In 2007, he co-edited the Oxford University Press volume, *Variation in Working Memory*.

Todd D. Little is a Professor of Psychology, Director of the Center for Research Methods and Data Analysis, and Director of Quantitative training at University of Kansas (KU). Little is internationally recognized for his work on various aspects of applied SEM (e.g., indicator selection, parceling, modeling developmental processes, planned missing designs) as well as his developmental research (e.g., action-control processes, motivation, coping, and aggression). Little has worked at the Max Planck Institute for Human Development's Center for Lifespan Studies (1991-1998) and Yale University's Department of Psychology (1998-2002) prior to joining KU. In 2001, Little was elected to the *Society for Multivariate Experimental Psychology*. In 2009, he was elected President of APA's Division 5 (Evaluation, Measurement, and Statistics). Little is a Fellow in AAAS as well as APA and APS. He organizes and teaches in the internationally renowned "Stats Camps" each June (see [crmda.ku.edu](http://crmda.ku.edu) for details) and has given over 150 workshops and talks on methodology topics around the world. In 2009, he received the W.T. Kemper award for excellence in Teaching at KU and in 2013 he received the Cohen award for distinguished contributions for teaching and mentorship from APA's Division 5. Little has served on numerous standing and ad hoc grant review panels for agencies such as NSF, NIH, and IES and private foundations such as the Jacobs foundation. He has been principal investigator or co-principal investigator on over 20 grants and contracts and he has served as a statistical consultant on over 75 grants and contracts.

Rodney L. Lowman is currently Distinguished Professor in the California School of Professional Psychology at Alliant International University, based in San Diego and President of Lowman & Richardson/Consulting Psychologists. He is a recognized authority on professional ethics, career assessment, and work dysfunctions. A Ph.D. graduate of Michigan State University with specializations in Industrial-Organizational (I-O) and clinical psychology, Dr. Lowman is the author or editor of nine books and monographs, has published over 100 peer-reviewed publications and made hundreds of professional presentations all over the world. He is currently editor of *Consulting Psychology Journal: Practice & Research*. His most recent book is *Internationalizing Multiculturalism: Expanding Professional Competencies in a Globalized World*, published by the American Psychological Association. Dr. Lowman is a Fellow of the American Psychological Association (Divisions 12 (clinical psychology), 13 (consulting psychology) and 14 (I-O psychology) and is a Diplomat of the American Board of Assessment Psychology. In addition to being a member of Leadership Worth Following (LWF's) Advisory Board of Directors and the Chair of its Science Advisory Board, Dr. Lowman serves on the Board of Convention Affairs of the American Psychological Association and as Research Domain leader for the Society of Consulting Psychology and is APA Council Representative for SIOP. He is Past President of the Society of Psychologists in Management (SPIM) and the Society of Consulting Psychology and has held a wide variety of positions in the American Psychological Association. His leadership roles in academia include Program Director, Dean, Provost/VPAA and President.

Fred Oswald is a professor of industrial and organizational (I-O) 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 (APA), American Psychological Society (APS), and the Society for Industrial and Organizational Psychology (SIOP). 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.

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**Christopher J. Patrick****(Emerging Constructs and Theory, Day One, Afternoon)**

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Christopher J. Patrick is a Professor of Clinical Psychology at Florida State University. His scholarly interests include psychopathy, antisocial behavior, substance abuse, personality, fear and fearlessness, psychophysiology, and affective and cognitive neuroscience. He is author of more than 170 articles and book chapters, and Editor of the *Handbook of Psychopathy* (Guilford Press, 2006). Since 2008 he has served as a Scientific Advisor to the DSM-5 Personality and Personality Disorders (PPD) Work Group, and in 2010 he served as a Workgroup Member for the National Institute of Mental Health's Research Diagnostic Criteria (RDoC) initiative. A recipient of Early Career awards from the American Psychological Association and the Society for Psychophysiological Research (SPR), Dr. Patrick is immediate Past President of SPR, and is also a Past President of the Society for Scientific Study of Psychopathy.

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**James Rounds****(Measuring Individual Differences, Day Two, Morning)**

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James Rounds is professor of psychology and educational psychology at the University of Illinois at Urbana-Champaign. Previously, he was a faculty member at the State University of New York at Buffalo where he taught psychometrics and research methods from 1982-1987. He also had a research appointment in the Department of Psychology at Roswell Park Cancer Institute. At the University of Illinois, he is affiliated with programs in industrial and organizational psychology, counseling psychology, and quantitative and evaluative research methodologies. He studies the continuity and change of interests from adolescence to adulthood that includes published research on interest development and stability, interest models (structure), public domain interest inventories, and links to satisfaction and performance. He has a B.S. and Ph.D in psychology from University of Minnesota with concentrations in vocational psychology, individual differences, measurement, motivation, and animal learning.

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**Paul R. Sackett****(Measuring Individual Differences, Day Two, Morning)**

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Paul R. Sackett is the Beverly and Richard Fink Distinguished Professor of Psychology and Liberal Arts at the University of Minnesota. He received his Ph.D. in Industrial and Organizational Psychology at the Ohio State University in 1979. 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.

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**Scott Tannenbaum****(Group Composition, Day Two, Afternoon)**

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Scott I. Tannenbaum is President of the Group for Organizational Effectiveness (gOE), an Albany, NY-based consulting and research firm he co-founded in 1987. During his 25 years as a scientist-practitioner, Dr. Tannenbaum has served as a tenured business school professor and is currently a successful entrepreneur and

consultant. His scientific-academic accomplishments include over 60 publications, 100+ presentations, over 5000 citations, and 5 research/teaching awards. He has written books on knowledge management and human resource technologies. He was named a Fellow of the Society for Industrial and Organizational Psychology (SIOP) and of the Association for Psychological Science (APS), has reviewed for over 20 professional journals, and has served as a principal investigator on a wide range of funded research efforts. As a practitioner, he currently leads The Group for Organizational Effectiveness (gOE), a boutique consulting and research firm that has provided organizational development and research support to over 400 organizations, including more than 75 Fortune and Global 1000 companies. A few of the well-known organizations he has supported include: NASA, Johnson & Johnson, BP, Tiffany & Co., GE, Crayola, Whirlpool, McGraw-Hill, Travelers, UBS, Medtronic, T-Mobile, American Express, the U.S. Navy, Army and Air Force, Roche, Carnival, The Hartford, Frito-Lay, UnitedHealth Group, Citicorp, MetLife, United Airlines, and Merck. He has worked with, conducted research on, and supported a wide array of teams including medical, drilling, aviation, aerospace, sales, banking, combat, and leadership teams. His research and consulting work with teams focuses on both team composition and development.

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**Anita Williams Woolley****(Group Composition, Day Two, Afternoon)**

Anita Williams Woolley is an Assistant Professor of Organizational Behavior and Theory at the Tepper School of Business. She has a Ph.D. in Organizational Behavior from Harvard University, where she also earned Bachelor's and Master's degrees. At the Tepper School of Business, she teaches M.B.A. and executive education courses on managing people and teams in organizations.

Professor Woolley's research and teaching interests include team collaboration, collective intelligence, and managing multiple team memberships. Her research has been published in *Science*, *Academy of Management Review*, *Organization Science*, *Journal of Organizational Behavior*, and *Small Group Research*, among others. Her research has been funded by grants from the National Science Foundation, the U.S. Army Research Institute, as well as private corporations. She has won awards for her research and her teaching.

Professor Woolley has served on the editorial boards for *Organization Science* and *Small Group Research*, and is a member of the Academy of Management, the Interdisciplinary Network for Group Research, and the Association for Psychological Science.

## **Members, Committee on Measuring Human Capabilities: Performance Potential of Individuals and Collectives**

### **Jack Stuster, Chair**

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Jack W. Stuster is vice president and principal scientist of Anacapa Sciences, Inc. He is a cultural anthropologist and certified professional ergonomist specializing in the measurement and enhancement of human performance in extreme environments. He recently completed a study for the Defense Advanced Research Projects Agency (DARPA) that identified factors that contribute to survival and casualties during firefights. The study involved interviews with combat veterans, archival research, and assembly and analysis of a database comprising more than 200 firefight accounts coded for 88 variables. In addition, he contributed to the development of a training program for the Expedition Corps, astronauts selected for long duration space missions and recently completed a content analysis of confidential journals that were maintained by astronauts during their six-month tours of duty onboard the International Space Station. He also instructs law enforcement and national security personnel in the use of advanced techniques for the analysis of criminal and counter-insurgency intelligence. He is a fellow of the Society for Applied Anthropology and the Human Factors and Ergonomics Society and serves on the editorial board of the Society for Human Performance in Extreme Environments. He has been a member of several government advisory groups including the standing committee of the National Research Council to support the efforts of the Joint Improvised Explosive Device Defeat Organization (JIEDDO), for which he received a patriotic Civilian Service Commendation in 2011. He currently serves as the principal investigator of a NASA flight experiment and for development of The Cultural Depot, a PMESII-based information-sharing system for use by special operations personnel. He has a B.A. (with honors) in psychology and anthropology and both M.A. and Ph.D. degrees in anthropology from the University of California, Santa Barbara.

### **Georgia T. Chao**

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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.

### **Randall W. Engle**

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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.

## **Leatta Hough**

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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**

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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**

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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.

### **Stephen Stark**

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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.



## **Members in Attendance, Board on Behavioral, Cognitive, and Sensory Sciences (BBCSS)**

### **Jennifer Cole**

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Jennifer Cole is Professor of Linguistics, Computer Science, and Cognitive Science, at the University of Illinois (UIUC), and co-chair of the Biological Intelligence research theme at the UIUC Beckman Institute for Advanced Science and Technology. She was Instructor of Linguistics at Yale (1987-1989). She has degrees in Linguistics from the University of Michigan (B.A. 1982; M.A. 1983) and M.I.T. (Ph.D. 1987). Dr. Cole's research in the areas of phonology and phonetics focuses on the variability of speech forms and the mechanisms of speech processing and spoken language acquisition. Through the analysis of acoustic and behavioral data, using statistical and computational modeling, and formal grammar analysis, she examines phenomena related to speech prosody, coarticulation and phonological learning, and on the development of computer speech technologies based on phonological models of sound encoding. Her theoretical, experimental and computational work in phonology and phonetics spans over a dozen languages, including English, and she has a special interest in Indo-Aryan languages from Pakistan and India, and in the development of resources for computing and speech technologies for under-resourced languages. She has served on the executive or steering committees of the Association for Laboratory Phonology, the AAAS (Section Z: Language & Linguistics), the Linguistic Society of America and the American Institute for Pakistan Studies and as a member of the NSF Linguistics Advisory Panel. Dr. Cole's research has been supported with grants from the NSF, NIH, Dept. of Education, Natl. Security Education Program, NASA, and the University of Illinois. Dr. Cole has directed 17 Ph.D. theses in Linguistics at Illinois.

### **Daniel R. Ilgen**

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Daniel R. Ilgen is John A. Hannah Distinguished Professor of Psychology and Management at Michigan State University. He received his Ph.D. in psychology from the University of Illinois and subsequently held faculty appointments at the University of Illinois, Urbana-Champaign, the U.S. Military Academy, West Point, and Purdue University before coming to Michigan State University. He is a fellow of the Association for Psychological Science, the American Psychological Association, the Academy of Management, the International Association of Applied Psychology, and the Society for Industrial and Organizational Psychology. His work is in the general areas of work motivation, team behavior, and leadership. In recognition of this work, he received the Distinguished Scientific Contributions Award from the Society of Industrial and Organizational Psychology and the Herbert A. Henneman, Jr. Lifetime Career Achievement Award given by the Human Resources Division of the Academy of Management. He has served in numerous roles for the National Research Council including ten years as a member of the Committee on Human Factors and as a member of study panels that led to books on pay for performance, human protection in social and behavioral research, and future human behavior needs in soldier systems.

### **James S. Jackson**

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James S. Jackson is the Daniel Katz Distinguished University Professor of Psychology, Professor of Health Behavior and Health Education, School of Public Health, and Director and Research Professor of the Institute for Social Research. He is the past Chair, Social Psychology Training Program and Director of the Research Center for Group Dynamics, the Program for Research on Black Americans, and the Center for Afroamerican and African Studies, all at the University of Michigan. He is past-Chair of the Section on Social, Economic, and Political Sciences (K) of the American Association for the Advancement of Science (AAAS). He is a former Chair of the Section on Social and Behavioral Sciences, and the Task Force on Minority Issues of the Gerontological Society of America, and the Committee on International Relations and the Association for the Advancement of Psychology of the American Psychological Association. He is the current President of the

Society for the Psychological Study of Social Issues. He served on the National Advisory Mental Health Council of the National Institute of Mental Health and the National Institute on Aging Advisory Council and the Board of Scientific Counselors of NIA. He was recently named to the NIH Advisory Council to the Director. He is a fellow of the Gerontological Society of America, Society of Experimental Social Psychology, American Psychological Association, Association of Psychological Sciences, International Demographic Association, New York Academy of Medicine, and the American Association for the Advancement of Science. He is the recipient of the Distinguished Career Contributions to Research Award, Society for the Psychological Study of Ethnic Minority Issues, American Psychological Association, the James McKeen Cattell Fellow Award for Distinguished Career Contributions in Applied Psychology, the Association for Psychological Sciences, Presidential Citation, American Psychological Association, and Medal for Distinguished Contributions in Biomedical Sciences, New York Academy of Medicine. He is an elected member of the Institute of Medicine and a Fellow of the American Academy of Arts and Sciences.

### **Marcus E. Raichle**

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Marcus E. Raichle, is Professor of Radiology, Neurology, Neurobiology and Biomedical Engineering at Washington University in St Louis. A neurologist by training, he is a member of the National Academy of Sciences (NAS), The Institute of Medicine (IOM) and the American Academy of Arts and Sciences (AAAS) and a Fellow of the American Association for the Advancement of Science. He and his colleagues have made outstanding contributions to the study of human brain function through the development and use of positron emission tomography (PET) and functional magnetic resonance imaging (fMRI). Their landmark study (Nature, 1988) described the first integrated strategy for the design, execution and interpretation of functional brain images. It represented 17 years of work developing the components of this strategy (e.g., rapid, repeat measurements of blood flow with PET; stereotaxic localization; imaging averaging; and, a cognitive subtraction strategy). Another seminal study led to the discovery that blood flow and glucose utilization change more than oxygen consumption in the active brain (Science, 1988) causing tissue oxygen to vary with brain activity. This discovery provided the physiological basis for subsequent development fMRI and caused researchers to reconsider the dogma that brain uses oxidative phosphorylation exclusively to fuel its functional activities. Finally seeking to explain task-induced activity decreases in functional brain images they employed an innovative strategy to define a physiological baseline (PNAS, 2001; Nature Reviews Neuroscience, 2001). This has led to the concept of a default mode of brain function and invigorated studies of intrinsic functional activity, an issue largely dormant for more than a century. An important facet of this work was the discovery of a unique fronto-parietal network in the brain that has come to be known as the *default network*. This network is now the focus of work on brain function in health and disease worldwide.

## **National Research Council Staff**

**Robert M. Hauser**

**DBASSE Executive Director**

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Robert M. Hauser is Executive Director of the Division of Behavioral and Social Sciences and Education (DBASSE) at the National Research Council and Vilas Research Professor of Sociology, Emeritus, at the University of Wisconsin-Madison. While at the UW-Madison, he directed the Center for Demography of Health and Aging, the Institute for Research on Poverty, and the Center for Demography and Ecology. He has been an investigator on the Wisconsin Longitudinal Study (WLS) since 1969 and led the study from 1980 to 2012. The WLS has followed the lives of more than 10,000 Wisconsin High School graduates of 1957 for more than half a century. His current research interests include statistical methodology, trends in educational progression and achievement among American racial and ethnic groups, the uses of educational assessment as a policy tool, and changes in socioeconomic standing, cognition, health, and well-being across the life course. Recent publications include reports of the National Research Council, *Measuring Literacy: Performance Levels for Adults*; *Conducting Biosocial Surveys: Collecting, Storing, Accessing, and Protecting Biospecimens and Biodata*; *High School Dropout, Graduation, and Completion Rates: Better Data, Better Measures, Better Decisions*, and *A Plan for Evaluating the District of Columbia's Public Schools: From Impressions to Evidence* and journal publications about grade retention, educational expectations, social mobility, obesity, cognitive functioning, end-of-life planning, and mortality. He is a member of the National Academy of Sciences, American Academy of Arts and Sciences, the National Academy of Education, and the American Philosophical Society. He received his Ph.D. in Sociology from the University of Michigan.

**Barbara A. Wanchisen**

**BBCSS Board Director**

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Barbara A. Wanchisen received a B.A. in English and Philosophy from Bloomsburg University in Pennsylvania, an M.A. in English from Villanova University, and her Ph.D. in Experimental Psychology from Temple University. She is a long-standing member of the Psychonomic Society, American Psychological Association (fellow, Division 25), Association for Behavior Analysis - International, and the American Association for the Advancement of Science. She has served on the editorial boards of the *Journal of the Experimental Analysis of Behavior* and *The Behavior Analyst* while also serving as a guest reviewer of a number of other journals in experimental psychology. From November 2001 until April 2008, Wanchisen was the executive director of the Federation of Behavioral, Psychological, & Cognitive Sciences in Washington, DC, a non-profit advocacy organization. In 2004, she was instrumental in the founding of the Federation's Foundation for the Advancement of Behavioral and Brain Sciences, which assumed the educational mission of the Federation. Previously, Wanchisen was Professor in the Department of Psychology and Director of the college-wide Honors Program at Baldwin-Wallace College in Cleveland, Ohio.

**Cherie Chauvin**

**BBCSS Senior Program Officer**

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Cherie Chauvin joined BBCSS in 2008 and has been the Study Director for multiple national security studies, resulting in four publications. She possesses an M.S. in Strategic Intelligence from the National Defense Intelligence College (Washington, DC), an M.A. in International Relations from The Maxwell School at Syracuse University (Syracuse, NY), and a B.S. in Cognitive Science from the University of California at San Diego (La Jolla, CA). Previously, Ms. Chauvin was with the Department of Defense, Defense Intelligence Agency (DIA), where her last position was Intelligence Officer and Platform Manager in the Directorate of Human Intelligence, Asia Pacific Division. As such, she supported military operations and liaison relationships in Japan, South Korea and Mongolia. During her time with DIA Ms. Chauvin deployed to Afghanistan where she conducted intelligence collection operations in Kabul to answer strategic

and tactical military intelligence requirements. In recognition of her service, she was awarded both the DIA Civilian Expeditionary Medal and the Department of the Army Commander's Award for Civilian Service.

**Renée L. Wilson Gaines**

**BBCSS Senior Program Assistant**

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Renée L. Wilson Gaines joined BBCSS and BOHSI after more than 32 years of import/export, law office, nonprofit, and academia experience. Since joining the NRC, she has supported studies such as Mine Safety: Essential Components of Self-Escape, Sociocultural Data to Accomplish Department of Defense Missions, The Role of Human Factors in Home Health Care, Field Evaluation in the Intelligence and Counterintelligence Context, and A Database for a Changing Economy: Review of the Occupational Information Network (O\*NET). Renée, a fourth-generation New Yorker, holds a Bachelor degree from Howard University in Washington, DC.

**Tina M. Winters**

**BBCSS Associate Program Officer**

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Tina M. Winters works with the Committee on the Science of Team Science, the Committee on the Context of Military Environments, and the Committee on Measuring Human Capabilities. In 2011, she returned to the National Research Council to work with the Committee on the External Evaluation of NIDRR and its Grantees. Prior to rejoining the National Research Council, she worked on an initiative to spread innovative health care practices and with the coordinating center for a medical registry on islet cell transplantation. In her previous tenure at the National Research Council, she worked with the Committee on Social Science Evidence for Use and has supported numerous studies, including *Scientific Research in Education, Knowing What Students Know: The Science and Design of Educational Assessment*, and the *National Science Education Standards*.