

PRESENTER AND DISCUSSANT BIOGRAPHICAL SKETCHES



MARGARET (MEG) BLUME-KOHOUT is an assistant professor in the Department of Economics at the University of New Mexico, and a senior fellow of UNM's Robert Wood Johnson Foundation Center for Health Policy. Her current research focuses on evaluating the productivity and efficiency of federally-funded research for biomedical sciences, including impacts on private R&D funding at universities, patenting, graduate training and the scientific workforce, scientific publications, and biopharmaceutical innovation. She has received grant awards from the National Science Foundation and National Institutes of Health to pursue this research. Her paper on effects of changes in targeted, disease-specific NIH funding on pharmaceutical innovation was recently published in the *Journal of Policy Analysis and Management*. Prior to her current appointment, she was an assistant professor in the Department of Economics at the University of Waterloo in Ontario, Canada, and a doctoral fellow at the RAND Corporation. She has also worked in simulation science at Los Alamos National Laboratory, in an environmental microbiology laboratory, and in strategic management consulting and health outcomes contract research for pharmaceutical firms. She holds a Ph.D. in policy analysis from the Pardee RAND Graduate School, an M.S. in environmental health sciences from the University of California-Berkeley, and a B.A. in economics from Williams College.



YANG CHEN is a Ph.D. candidate in the Department of Computer Science at University of North Carolina at Charlotte. His research interests include information visualization and visual analytics. His recent research is collaborated with Microsoft Research Asia, and is focused on visual analysis of text and social media data. He has delivered papers at premier conferences in the related research areas, such as IEEE Conference on Visual Analytics Science and Technology and IEEE PacificVis. He received his B.Sc. in computer science from Wuhan University in 2007.

CONSTANCE F. CITRO is director of the Committee on National Statistics, a position she has held since May 2004. She previously served as acting chief of staff (December 2003-April 2004) and as senior study director (1986-2003). She began her career with CNSTAT in 1984 as study director for the panel that produced *The Bicentennial Census: New Directions for Methodology in 1990*. Dr. Citro received her B.A. in political science from the University of Rochester, and M.A. and Ph.D. degrees in political science from Yale University. Prior to joining CNSTAT, she held positions as vice president of Mathematica Policy Research, Inc., and Data Use and Access Laboratories, Inc. She was an American Statistical Association/National Science Foundation/Census research fellow in 1985-1986, and is a fellow of the American Statistical Association and an elected member of the International Statistical Institute. For CNSTAT, she directed evaluations of the 2000 census, the Survey of Income and Program Participation, microsimulation models for social

welfare programs, and the NSF science and engineering personnel data system, in addition to studies on institutional review boards and social science research, estimates of poverty for small geographic areas, data and methods for retirement income modeling, and a new approach for measuring poverty. She coedited the 2nd – 4th editions of *Principles and Practices for a Federal Statistical Agency*, and contributed to studies on measuring racial discrimination, expanding access to research data, the usability of estimates from the American Community Survey, the National Children's Study research plan, and the Census Bureau's 2010 census program of experiments and evaluations.



MARGARET CLEMENTS is founder and director of The Center for Knowledge Diffusion—a 501c3 research organization. This non-profit has been organized to promote educational access by reducing barriers to opportunity across five substantive areas: (1) impact analysis of activities related to knowledge diffusion; (2) higher education patenting and licensing activities; (3) talent development; (4) higher education finance as it pertains to student retention and access; and, (5) school policy research. These research domains are connected by a commitment to create avenues for the realization of potential. By integrating meaningful mentoring opportunities for students, researchers, and faculty, she actively promotes the diffusion of knowledge across multiple disciplines. Dr. Clements is a graduate of Indiana University where she received a Bachelor of Arts degree in political science and honors English. After living and working in Italy for more than eight years, she returned to Indiana University to pursue her doctorate in education policy studies and higher education administration. She also holds a Master of Science degree in higher education and student affairs.

LISA D. COOK is assistant professor in the Department of Economics and at James Madison College at Michigan State University. She was the first Marshall Scholar from Spelman College and received a second B.A. from Oxford University. She earned a Ph.D. in economics from the University of California, Berkeley. Prior to this appointment and while on faculty at Harvard University's Kennedy School of Government, she was also deputy director for Africa Research and Programs at the Center for International Development at Harvard University, was managing editor of the Harvard University-World Economic Forum *Africa Competitiveness Report*, and contributed to the Making Markets Work program at Harvard Business School. Among her current research interests are economic growth and development, financial institutions and markets, innovation, and economic history. Dr. Cook is the author of a number of published articles, book chapters, and working papers. Her research has been funded by the National Science Foundation, the National Bureau of Economic Research/Gates Foundation, the Economic History Association, the Social Science Research Council, and Harvard Business School, among others. She speaks French, Russian, Spanish, and Wolof. With fellow economist and co-author Jeffrey Sachs, she advised the governments of Nigeria and Rwanda, and, as a Council on Foreign Relations International Affairs Fellow, she was Senior Adviser on Finance and Development at the Treasury Department from 2000 to 2001. From November 2008 to January 2009, Dr. Cook was on the Obama Presidential Transition Team and led the review of the World Bank and International

Affairs division of the Treasury Department. During the 2011-2012 academic year, she is on leave at the President's Council of Economic Advisers and works on the euro zone, financial instruments, entrepreneurship, and innovation.



SANDY DALL'ERBA cofounded the Regional Economics and Spatial Modeling Laboratory in 2012 where he currently serves as its director. He also holds an associate professor position in the School of Geography and Development at the University of Arizona with affiliations in the Institute for the Environment, the Department of Economics, and the Graduate Interdisciplinary Program in Statistics. He received his doctorate in economics from the University of Pau, France, in June 2004 after spending two years at the Regional Economics Applications Laboratory at the University of Illinois, Urbana-Champaign. At the University of Illinois, he spent a year in a post-doctoral capacity, followed by a position at the Department of Spatial Economics of the Free University of Amsterdam, the Netherlands. His research interests focus on regional science in general and economic growth, regional development policies, and the geography of innovation. Dr. Dall'erba studies each of these fields by modeling and measuring the spatial interactions that take place between regions. An example would be the presence of spillover effects when regional policies are implemented to correct economic imbalances. In that purpose, he uses various tools of regional science, but mostly spatial statistics, spatial econometrics, and interregional input-output. He has published several articles on these topics, with his work appearing in refereed journals and book chapters. He has been awarded numerous prizes for his work. His research always attempts to provide a range of exposure to new curricula materials, methods of conducting interdisciplinary and international collaborative research, and guidance in the preparation of material for dissemination in the public policy arena.



WENWEN DOU is a postdoctoral researcher at the Charlotte Visualization Center in the University of North Carolina at Charlotte, where she works on visual analytics, text analysis, and human-computer interaction. Her research investigates the computational and cognitive factors involved in making sense of large textual data collections. Her work on visual text analysis methods and visual analytics systems designed for various application domains were published at the premier venues in Visual Analytics and Information Visualization (IEEE VAST, IEEE InfoVis, IEEE CG&A). She holds a Ph.D. degree in computer science and a graduate certificate in cognitive science from the University of North Carolina at Charlotte.



CATHERINE C. ECKEL is Sara & John Lindsey professor of economics and director of the Initiative on Behavioral Economics and Public Policy at Texas A&M University. Her research interests bridge economics, psychology and sociology, and uses experimental methods to investigate differences in the behavior of women and men, gender- and race-based discrimination, charitable giving, trust and reciprocity, and attitudes toward risk, among other topics. She is past president of the Southern Economic Association and was co-editor of the *Journal of Economic Behavior and Organization* (2005-2012). Her research has been funded by the National Science Foundation and various private foundations. Dr. Eckel was Ashbel Smith professor of economics and director of the Center for Behavioral and Experimental Economic Science at the University of Texas at Dallas (2005-2012), and professor of economics and director of the Lab for the Study of Human Thought and Action at Virginia Tech (1983-2005). She also served as a program officer for the Economics Program at the National Science Foundation (1996-1998). She earned a Ph.D. in economics from the University of Virginia in 1983.

NOAH WEETH FEINSTEIN is assistant professor in the departments of Curriculum & Instruction and Community & Environmental Sociology at the University of Wisconsin-Madison. His research focuses on engagement with science: the interpersonal and intrapersonal processes through which people connect their lived experience with scientific institutions, artifacts and explanations. His past projects have examined engagement from both the “public” side as well as the “science” side, encompassing research with parents of recently diagnosed autistic children, doctors and patients during clinical interaction, and scientists conducting museum-based science outreach. Each project investigated how science-related questions and resources were embedded in a broader fabric of concerns, attempting to isolate the semantic and cross-cultural tensions that short-circuited engagement. At present, he is engaged in a two-year study of an interdisciplinary scientific institute, examining how the institute seeks to define itself to its many public constituencies. Feinstein’s work can be found in journals such *Public Understanding of Science*, *Science Education*, *Science and Education*, and even *The American Journal of Psychotherapy*. He is an affiliate of the Holtz Center for Science and Technology Studies and the UW-Madison Center for Climate Research.



ERIK FISHER is an assistant professor of Political Science at Arizona State University. He holds a joint appointment in the School of Politics and Global Studies and in the Consortium for Science, Policy and Outcomes. He serves as the assistant director for International Activities at the NSF-funded Center for Nanotechnology in Society at ASU, where he is also co-leads a research thrust in Real-Time Technology Assessment. Dr. Fisher is principal investigator of the NSF-funded Socio-Technical Integration Research (STIR) project, which coordinates over 30 laboratory engagement studies in a dozen nations. His research interests are in governance of emerging technologies, spanning the lab to the legislature; the politics of science and technology; research policy; the public value of science; and midstream modulation. He is guest editor of a special issue of *Science and Engineering*

Ethics on “Observation and Engagement: Science and Technology Policy in the Making,” co-edited the first volume of the *Yearbook of Nanotechnology in Society*, and has published in journals such as *Science and Public Policy*, *NanoEthics*, *Scientometrics*, and *EMBO Reports*. He holds a Ph.D. in environmental studies from the University of Colorado, Boulder, an M.A. in classics from the University of Colorado, Boulder, and a B.A. in philosophy and mathematics from St. John’s College, Annapolis.



RICHARD B. FREEMAN is the Herbert Ascherman chair in economics at Harvard University. He is currently serving as faculty director of the Labor and Worklife Program at Harvard Law School. He also directs the National Bureau of Economic Research/Sloan Science Engineering Workforce Projects, and is senior research fellow in labor markets at the London School of Economics’ Centre for Economic Performance. He is a fellow of the American Academy of Arts and Science and is currently serving as a member of the AAAS Initiative for Science and Technology. He served on the study on Policy Implications of International Graduate Students and Postdoctoral Scholars in the United States. He also served on five panels of the National Academy of Sciences, including the Committee on National Needs for Biomedical and Behavioral Scientists. He received the Mincer Lifetime Achievement Prize from the Society of Labor Economics in 2006. In 2007 he was awarded the IZA Prize in Labor Economics. He has a B.A. degree from Dartmouth College, and a Ph.D. degree from Harvard University.



ERICA R.H. FUCHS is an associate professor in the Department of Engineering and Public Policy at Carnegie Mellon University. Her research focuses on the role of government in technology development and the effect of location on the competitiveness of new technologies. Dr. Fuchs was selected in 2012 to become an InterAcademies Panel Young Scientist. In 2011, she received an NSF CAREER award for her research rethinking national innovation systems, and in 2008, she received the Oak Ridge Associated Universities Junior Faculty Enhancement Fellowship for her research on the impact of offshoring on technology directions. Over the past three years, Dr. Fuchs has been playing a growing role in national meetings on the future of U.S. advanced manufacturing, including advising the President’s Council of Advisors on Science and Technology during a one-day workshop and welcoming and briefing President Obama during his 2011 visit to Carnegie Mellon to announce the Advanced Manufacturing Partnership. She also served on the National Research Council committee on future trends and challenges in optical science. Before coming to CMU, Dr. Fuchs completed her Ph.D. in engineering systems at M.I.T. in June 2006. She received her Masters and her Bachelors degrees also from M.I.T. in technology policy (2003) and materials science and engineering (1999), respectively. Dr. Fuchs spent 1999-2000 as a fellow at the United Nations in Beijing, China. There, she conducted research at state-owned industrial boiler manufacturers on policies to encourage innovation. Her work has been published among other places in *Journal of Lightwave Technology*, *Composite Science and Technology*, *Issues in Science and Technology*, *Research Policy*, *Organization Science*, and *Management Science*. Dr. Fuchs has been an invited speaker at a wide range of venues

including the United Nations Industrial Development Organization, the U.S. Department of Commerce's National Advisory Council on Innovation and Entrepreneurship, and the Council on Foreign Relations.

JEFFREY L. FURMAN (Ph.D. 2001, MIT-Sloan) is associate professor of strategy & innovation at Boston University and a research associate at the National Bureau of Economic Research (NBER). His research addresses issues in strategy & international business and science, innovation, & policy. His recent projects examine the impact of institutions on cumulative innovation and the strategic management of science-based. Dr. Furman's research has been published in the *American Economic Review (AER)*, *Nature*, *Journal of Policy Analysis & Management*, *Journal of Economic Behavior and Organization (JEBO)*, *Research Policy*, and *Industrial & Corporate Change (ICC)*, as well as other academic journals. He has also served on the editorial review boards of the *Industry & Innovation*, the *Journal of International Business Studies (JIBS)*, *Strategic Organization! (SO!)*, and the *Journal of Management*. He co-organizes the NBER's Summer Institute program on Innovation Policy & the Economy and is an executive board member of the BPS Division of the *Academy of Management*. He holds a B.A. in psychology from the University of Pennsylvania, a B.S. in economics from the Wharton School, and studied managerial economics at the Free University of Berlin on a Fulbright Scholarship. Prior to entering academia, he had worked at a health policy consultancy in Washington, DC.

C. LEE GILES is the David Reese professor of information sciences and technology at the Pennsylvania State University. He holds appointments in the Departments of Computer Science and Engineering, and Supply Chain and Information. His research interests are in intelligent cyberinfrastructure, web tools, specialty search engines, information retrieval, digital libraries, web services, knowledge and information extraction, data mining, name matching and disambiguation, and social networks. He has published over 300 papers in these areas. He was a cocreator of the popular search engines and tool, CiteSeer (now CiteSeer^X) for computer science. He was also a cocreator of an early metasearch engine, Inquiris; Chem_xSeer, for chemistry; the first search engine for robots.txt, BotSeer; and the first for academic business, SmealSearch. He is an expert in managing and searching data. He is a fellow of the ACM, IEEE, and INNS.



DAVID GOLDSTON is director of government affairs at the National Resource Defense Council. Prior to this he was a visiting lecturer in the Science, Technology, and Environment Program at Princeton University's Woodrow Wilson School of Public and International Affairs. From 2001 through 2006, he was the chief of staff of the U.S. House of Representatives Committee on Science, which has jurisdiction over much of the federal research and development budget. He was also a key player in most environmental debates in the House from 1995, when he became legislative director to Representative Sherwood Boehlert of New York, until the end of 2006. Mr. Goldston wrote the monthly column "Party of One" on Congress and science policy for the journal *Nature*. He graduated from Cornell University, and completed the course work for a Ph.D. degree in U.S. history at the University of Pennsylvania. He is a member of the Aeronautics and Space Engineering

Board of the National Academies and a member of the Committee to Organize a Workshop on Measuring Economic and Other Returns on Federal Research Investments under the STEP Board. He served on the CNSTAT Panel on *Modernizing the Infrastructure of the NSF Federal Funds for R&D Survey*.



MYRON P. GUTMANN is assistant director of the National Science Foundation, where he leads NSF's Social, Behavioral, and Economic Sciences Directorate. The SBE Directorate is responsible for NSF's research about people and their lives, with broad interdisciplinary connections to research throughout the foundation. He is also professor of history and Information and research professor in the Institute for Social Research at the University of Michigan. Prior to joining NSF, he was director of the Inter-university Consortium for Political and Social Research (ICPSR). Gutmann has broad interests in interdisciplinary historical research, especially health, population, economy, and the environment. Since 1995, he has led a multi-site research program about population, agriculture and environmental change in the U.S. Great Plains, which has produced important research results that show how demographic and agricultural change both respond to environmental conditions and shape environmental outcomes such as greenhouse gas production. As director of ICPSR, he was a leader in the archiving and dissemination of electronic research materials related to society, population, and health, with a special interest in the protection of respondent confidentiality. He has written or edited five books and more than eighty articles and chapters. Dr. Gutmann has served on a number of national and international advisory committees and editorial boards.



LAUREL L. HAAK (Laure), Ph.D., is the executive director of ORCID, an international and interdisciplinary non-profit organization dedicated to providing the technical infrastructure to generate and maintain unique and persistent identifiers for researchers and scholars. Dr. Haak earned a B.S. and M.S. in biology at Stanford University, completed her Ph.D. in neuroscience at Stanford University Medical School, and conducted postdoctoral research at the National Institutes of Health. Following postdoctoral work, she served as editor of Science Magazine's NextWave Postdoc Network, a weekly publication of the American Association for the Advancement of Science (AAAS). Dr. Haak was a program officer at the National Academies, where she directed workforce policy studies on international students, interdisciplinary research, women faculty, postdoctoral researchers, and innovation policy. She also served as chief science officer at Discovery Logic, a Thomson Reuters business, where she provided research evaluation and policy expertise and was responsible for strategic partnerships.



JERALD HAGE is director of the Center for Innovation, University of Maryland, which he found in 1982 to study the differences in industrial innovation between the United States and Japan. Starting in October, he will advise the Australian School of Business, University of New South Wales, Sydney, Australia, 2012 on establishing a new chair on innovation. He has been a visiting professor twice each in Japan, Great Britain, the Netherlands, and at Indiana University, and once each in France (Ecole des Mines), Israel (Technion) and Italy (Bocconi). He was elected the president of the Society of the Advancement of Socio-Economics, 1997-98 and 1994, he was British Petroleum Centennial Research Professor at the London School of Economics. His publication record includes 17 books and well over a 100 peer reviewed articles, the last two books are *Innovation, Science and Institutional Change: A Handbook of Research* (edited with Meeus) with Oxford University Press in 2006 and *Restoring the Innovative Edge: Driving the Evolution of Science and Technology* with Stanford University Press in 2011. The latter provides a new policy model for science and technology. The most recent articles examine the characteristics of a transformational organization and the development of policy framework for evaluating research. During the course of his research career, he has received 10 projects funded by the National Science Foundation as well as research grants from several different countries (Sweden, France). His B.B.A. degree is from the University of Wisconsin and his Ph.D. in sociology is from Columbia University.



DAVID M. HART is professor and director of the Center for Science and Technology Policy at the School of Public Policy at George Mason University. Professor Hart served as assistant director for innovation policy at the Office of Science and Technology Policy, Executive Office of the President from July 2011 to August 2012. His recent research focuses high-growth entrepreneurship, high-skill migration, and energy innovation. His book *Unlocking Energy Innovation* (MIT Press, 2012, co-authored with Richard K. Lester) was recently awarded honorable mention in the Business, Finance & Management category in the 2011 American Publishers Award for Professional and Scholarly Excellence (PROSE Award). Other recent publications include "High-Tech Immigrant Entrepreneurs in the U.S." (*Economic Development Quarterly* 2011) and "Making, Breaking, and (Partially) Remaking Markets: State Regulation and Photovoltaic Electricity in New Jersey" (*Energy Policy* 2010).



SHARON L. HAYS is vice president, Office of Science and Engineering, at CSC (Computer Sciences Corporation). Dr. Hays leads a team focused on the creation of business opportunities in the emerging climate change, energy and sustainability market. She also serves on the board of directors of Jefferson Science Associates, LLC, which manages and operates the Department of Energy's Thomas Jefferson National Accelerator Facility in Newport News, VA. She serves on several advisory committees, including the National Climate Assessment and Development Advisory Committee, to which she was appointed by the Secretary of Commerce in April, 2011. Before joining CSC, Dr. Hays worked in the White House Office of Science and Technology Policy (OSTP) where, after confirmation by the U.S. Senate, she

served as a deputy to the President's science advisor. In this role, she led the strategic direction for all OSTP activities related to a range of science initiatives and advised senior White House officials on environmental and security policies. In 2007, Dr. Hays led the U.S. delegation to the Nobel Prize-winning Intergovernmental Panel on Climate Change. Earlier in her career, she worked on Capitol Hill, serving in several senior staff positions in the House of Representatives. Dr. Hays received her Ph.D. in biochemistry from Stanford University, where she studied in the laboratory of Nobel Laureate Paul Berg. She also holds a B.A. in molecular biology from the University of California, Berkeley.



MATTHEW J. HIGGINS is the Imlay assistant professor of strategic management in the Scheller College of Business at the Georgia Institute of Technology and a faculty research fellow at the National Bureau of Economic Research (NBER). His research interests center primarily on firm responses to productivity changes (and challenges) in the pharmaceutical industry. This includes understanding the interrelationship between internal R&D and the use of external technology markets through acquisitions, alliances, and corporate venture capital. He is also interested in the impact that regulation, namely Hatch-Waxman Paragraph IV challenges, has on overall productivity decisions and, more specifically, on the development of rare and neglected diseases. His research has been accepted for publication in a diverse range of leading journals including *Science*, *Journal of Financial Economics*, *Review of Economics and Statistics* and *Strategic Management Journal*. Dr. Higgins received his Ph.D. in economics from Emory University where he was a recipient of a National Science Foundation's Integrative Graduate Education and Research Traineeship Fellowship (IGERT). His research has received funding and support from the Georgia Research Alliance, Kauffman Foundation, Rich Foundation, the National Institutes of Health (NIH), Pfizer Inc., and IMS Health, Inc.



MYIAH J. HUTCHENS is an assistant professor of journalism at the University of Arizona. She currently serves as co-PI on a NSF-funded research project examining effective public participation and science communication (SciSIP), and previously has worked on funded research for The Center for Information and Research on Civic Learning and Engagement examining the effects of communication activities in high school classrooms on youth civic participation. Generally, her research focuses on political communication. Specifically, she uses information processing theories to understand what leads individuals to engage in political discussions and seek out various media content, and how those communication experiences influence political knowledge and engagement. Dr. Hutchens currently is a member of the executive committee for the Communication Theory and Methodology division of the Association for Education in Journalism and Mass Communication. Her research has been published in journals such as *Political Communication*, *Journal of Communication*, and *Communication Methods and Measures*. She received her Ph.D. from Ohio State University.



THOMAS KALIL is currently serving as the deputy director for policy for the White House Office of Science and Technology Policy and senior advisor for science, technology, and innovation for the National Economic Council. From 2001 to 2008, he was special assistant to the chancellor for science and technology at UC Berkeley. He was responsible for developing major new multi-disciplinary research and education initiatives at the intersection of information technology, nanotechnology, microsystems, and biology. In 2007 and 2008, he was the chair of the Global Health Working Group for the Clinton Global Initiative, where he developed new public and private sector initiatives in areas such as maternal and child health, under-nutrition, and vaccines. Previously, Dr. Kalil served as the deputy assistant to President Clinton for technology and economic policy, and the deputy director of the White House National Economic Council. He led a number of White House technology initiatives, such as the National Nanotechnology Initiative, the Next Generation Internet, bridging the digital divide, e-learning, increasing funding for long-term information technology research, making IT more accessible to people with disabilities, and addressing the growing imbalance between support for biomedical research and for the physical sciences and engineering.



LUCIANO KAY is postdoctoral scholar in the Center for Nanotechnology in Society (CNS) at University of California Santa Barbara and research associate with the Georgia Tech Program in Science, Technology, and Innovation Policy (STIP), Georgia Institute of Technology. His research interests focus on technological innovation, new forms of scientific and technical work organization, and innovation policy. His current work involves comparative studies of national policies aimed at promoting nanotechnology research, development, and commercialization and the investigation of corporate strategies in the field of nanotechnology. Dr. Kay has also investigated innovation prizes and the means by which they induce innovation and studied recent cases of innovation prizes in the aerospace and defense sectors. His work on prizes has been funded by a doctoral dissertation improvement grant from NSF and a research stipend from the IBM Center for the Business of Government. His work has been published in international journals such as *R&D Management*, *Minerva*, *Journal of Technology Transfer*, *International Journal of Innovation and Regional Development*, and *Journal of Nanoparticle Research*. Other publications include his forthcoming book *Technological Innovation and Prize Incentives. The Google Lunar X Prize and Other Aerospace Competitions*. He has a Ph.D. in public policy from Georgia Tech. More information about Luciano and his research can be found at www.kay.com.ar.



MARTIN KENNEY is a professor at the University of California, Davis, a senior project director at the Berkeley Roundtable on the International Economy, and senior fellow at the Research Institute for the Finnish Economy. He has authored or edited five books and over 130 scholarly articles on venture capital, university-industry technology transfer, new industry formation, and technology-enabled globalization. His two edited books *Understanding Silicon Valley* and *Locating Global*

Advantage were published by Stanford University Press where he is the editor of a book series in innovation and globalization. He is an editor at *Research Policy*, a Stanford University Press book series, and the *Hitotsubashi Business Review*. He has been a visiting professor at the Copenhagen Business School, Cambridge University, Hitotsubashi University, Kobe University, Stanford University, and Tokyo University. He has consulted for or lectured at various private sector organizations including Association of Computing Machinery, Cisco, Dell India, Intel, and GHX and public sector organizations such as Interamerican Development Bank, National Academy of Engineering, National Academy of Science, the National Research Council, OECD, the President's Council on Science and Technology, World Bank, and the World Economic Forum.

ANNE MARIE KNOTT is professor of strategy at the Olin School of Business, Washington University, as well as a director at Berkeley Research Group. Her principle research interest is innovation. It takes two forms: large scale R&D and entrepreneurship. The R&D component culminates in work on a firm-specific measure of R&D effectiveness: firms' research quotient (RQ). She hopes diffusion of the RQ measure can do for R&D what hospital report cards are doing for morbidity, and what Sabremetrics is doing for baseball. The entrepreneurship work is serendipitous. It began by exploiting franchising to understand fundamental questions in strategy. It explores questions of the impact of market structure on entry, exit and innovation. Dr. Knott has published numerous articles on innovation and entrepreneurship in *Management Science*, *Organization Science*, *Strategic Management Journal*, *Research and Technology Management* and *Harvard Business Review*. In addition, she authored the text, "Venture Design," now in its second edition. Prior to receiving her Ph.D. from UCLA, professor Knott was a project engineer and manager at Hughes Aircraft Company developing missile guidance systems. She has an MBA from UCLA, and a B.S. in Math from University of Utah.

RYAN LAMPE is an assistant professor of economics in the Driehaus College of Business at DePaul University. He received degrees in economics and computer science from the University of Melbourne in 2002, and a Ph.D. in economics from Stanford University in 2009. Professor Lampe's teaching and research interests include intellectual property, innovation, economic history, and industrial organization. He has published articles in *The Review of Economics and Statistics*, *Journal of Economic History*, *Topics in Theoretical Economics* and *Information Economics and Policy*. His research focuses on the licensing strategies of patent pools, the effects of patent pools on innovation, and the usefulness of prior art citations.



ERIN LEAHEY is associate professor of sociology at the University of Arizona. She graduated from Wellesley College and earned her Ph.D. at UNC Chapel Hill. She regularly teaches courses on research methodology at the undergraduate and graduate levels, and also a graduate seminar on the Sociology of Knowledge. Professor Leahey's research program focuses on scientific practice and scientific careers. In a series of papers, she has investigated the diffusion of statistical techniques (like statistical significance testing) and heterogeneity in non-standard research practices (like data editing). Her interest in scientific careers is

demonstrated in another series of papers (e.g., *American Sociological Review* 2007, *Social Forces* 2008) that explores how the extent of specialization in scholars' research programs influences their career outcomes and helps explain gender differences in such outcomes. With NSF SciSIP funding (award #1057559, 2011-13, with Cindy Cain and Charles Ragin), she is analyzing how scholars from various disciplines and across multiple decades explain their success. In other projects, she is assessing the impact of subfield-spanning research in sociology (with Jim Moody); extending her work on specialization to the field of management (with Will Felps); theorizing the changing nature of regulation and self-regulation in the academy (with Kathleen Montgomery); and investigating how interdisciplinary research helps and hinders scholars' careers (with Christine Beckman). Professor Leahey has been involved in previous NSF workshops on combining SESTAT data with external data on publications and patents, and on interdisciplinarity. At the University of Arizona, she serves on the steering committee of the NSF-funded ADVANCE IT program.



ZHEN LEI is currently an assistant professor of energy and environmental economics in the Department of Energy and Mineral Engineering at Penn State University. His research interests include economics of innovation and intellectual property, science and technology policy, energy and environmental economics, and applied econometrics. His articles have appeared in journals such as *Nature Biotechnology*. Professor Lei has been awarded research grants from NSF and NIH. He has expertise in both economics and science, holding a Ph.D. degree in economics from University of California at Berkeley, and a Ph.D. degree in chemistry from Peking University in China.



MEGAN MACGARVIE is associate professor in the Department of Markets, Public Policy, and Law at the Boston University School of Management. She also holds the title of faculty research fellow at the National Bureau of Economic Research. She received her Ph.D. in economics from the University of California Berkeley. Her research focuses on the economics of innovation, intellectual property, and knowledge diffusion, and has been funded by the National Science Foundation, the Ewing Marion Kauffman Foundation, the National Bureau of Economic Research, and the Tilburg University Law and Economics Center for Innovation, Intellectual Property and Competition.



GREGORY NEMET is an assistant professor at the University of Wisconsin-Madison in the La Follette School of Public Affairs and the Nelson Institute's Center for Sustainability and the Global Environment. He is also a member of the university's Energy Sources and Policy Cluster. His research and teaching focus on improving analysis of the global energy system and, more generally, on understanding how to expand access to energy services while reducing environmental impacts. He teaches courses in energy systems analysis, governance of global energy problems, and international environmental policy. Professor Nemet's research analyzes the process of technological change in energy and its interactions with public

policy. These projects fall in two areas: (1) empirical analysis identifying the influences on past technological change and (2) modeling of the effects of policy instruments on future technological outcomes. The first includes assessment of public policy, research and development (R&D), learning by doing, and knowledge spillovers. An example of the second is work informing allocation between R&D and demand-side policy instruments to address climate change. He has been an author Intergovernmental Panel on Climate Change and the Global Energy Assessment. He received his doctorate in energy and resources from the University of California, Berkeley. His A.B. is in geography and economics from Dartmouth College.



M-H. CAROLYN NGUYEN is a director in Microsoft's Technology Policy Group, which helps shape relevant long term technology policy globally by engaging with stakeholders and raising awareness of potentially disruptive impacts of emerging technologies on existing social, economic, and policy frameworks. She is responsible for policy initiatives related to data management and privacy. She assumed her current role in February 2011. Prior to joining Microsoft, Dr. Nguyen held a number of positions with Research in Motion, Avaya

Communications, Lucent Technologies, and Bell Laboratories. Her experience includes a range of business and technical responsibilities in developing and bringing to market telecommunications, fixed mobile convergence, and unified communications solutions. Carolyn received her Ph.D. from the Center of Telecommunications Research at Columbia University, and completed Executive Business Management Programs at Harvard Business School and London Business School.



LEAH NICHOLS is AAAS science and technology policy fellow assigned to the Directorate for Social, Behavioral, and Economic Sciences at the National Science Foundation (NSF). At the NSF, she is helping to develop new ways of mapping the content of the NSF's research portfolios and working to integrate the social sciences into a variety of interdisciplinary research programs. Prior to her current fellowship, Leah completed a postdoctoral fellowship in the Science, Technology, and Public Policy program at the University of Michigan's Ford School of

Public Policy. Her primary academic research focuses on characterizing the role of universities in the innovation ecosystem. Dr. Nichols is particularly interested in non-commercial mechanisms of technology transfer as a means of distributing knowledge and technology to benefit public policy and other social interests. Leah received her Ph.D. in energy and resources from the University of California, Berkeley, and has a B.S. in environmental engineering from the Massachusetts Institute of Technology. She was also a 2009 Christine Mirzayan Science Policy Fellow at the National Academy of Sciences, where she worked with the Board on Science, Technology, and Economic Policy.



ASAKO OKAMURA is a fellow at the Center for Research and Development Strategy (CRDS), Japan Science and Technology Agency (JST), a position she has held since 2008. Her work has focused on the development of Japan's initiative for "Science of Science, Technology, and Innovation Policy" prior to its launch in 2011, jointly with the Ministry of Education, Culture, Sports, Science, and Technology (MEXT) of Japan and other related organizations. She is a visiting researcher at the National Institute of Science and Technology Policy (NISTEP), MEXT, and a visiting researcher at the Keio Economic Observatory, Keio University. She graduated from Keio University, Japan, with an M.A. in business and commerce, and completed the course work for a Ph.D. degree in business and commerce at Keio University. From 2006 to 2008 she served as a research fellow at the Global Security Research Institute of Keio University. Here she participated in several projects, including "World Input-output Economy Model", "Input-Output Analysis for Indian and the World Economy", and "Measurement of Co2 Embodiments in International Trade".



JASON OWEN-SMITH is a sociologist who examines how science, commerce, and the law cohere and conflict in contemporary societies and economies. Together with collaborators, Jason works on projects that examine the dynamics of high-technology industries, the commercialization of academic research, and the science & politics of human embryonic stem cell research. He seeks to understand how organizations, institutions, and networks can maintain the status quo while generating novelty through social transformations, scientific discoveries, and technological breakthroughs. Findings from this research have been published in outlets including the *American Journal of Sociology*, *the American Sociological Review*, *Cell*, *Cell Stem Cell*, *Higher Education*, *Management Science*, *Nature Biotechnology*, *Nature Methods*, *Organization Science*, *Research Policy*, and *Social Studies of Science*. Professor Owen-Smith is currently director of the Barger Leadership Institute. He holds the Barger Leadership Institute professorship of organizational studies and is an associate professor in both the Department of Sociology and the Organizational Studies Program at the University of Michigan. He is the recipient of a National Science Foundation Faculty Early Career Development (CAREER) Award and an Alfred P. Sloan Foundation Industries Studies Fellowship in Biotechnology. In 2008 he received the University of Michigan's Henry Russel Award, which recognizes mid-career faculty for exceptional scholarship and conspicuous teaching ability. He received his M.A. and Ph.D. degrees in sociology from the University of Arizona, and his B.A. in sociology and philosophy from the New College of Florida.

SUSANNAH PALETZ is a research associate in the Learning Research and Development Center at the University of Pittsburgh. Prior to this she was a postdoctoral fellow there, and before that she was a research psychologist at NASA Ames Research Center. While at NASA, she was a member of the Distributed Decision-Making and Human-Computer Interaction (HCI) groups. She received performance awards, and as a member of the HCI group, she received group achievement awards for work on mission assurance systems. Her research interests focus on social and cultural factors on teamwork and innovation,

especially in science and engineering teams. She specifically examines diverse, innovative teams and the effects of culture on creativity. Dr. Paletz is a member of several professional associations and recently served on the committee to choose the 2012 McGrath Lifetime Achievement Award for the Interdisciplinary Network for Group Research (INGRoup). In addition to having authored several book chapters, Paletz's research has appeared in journals such as *Human Factors*, *Small Group Research*, *Journal of Cross-Cultural Psychology*, *Topics in Cognitive Science*, *Negotiation and Conflict Management Research*, *Behavior Research Methods*, *Creativity Research Journal*, and *Cognition*. When at NASA, she edited and contributed to a technical memorandum on behavioral health and performance for short- and long-duration space missions. She has been awarded research grants from NSF, as well as from the Berkeley Chapter of Sigma Xi and the Northern California Association of Phi Beta Kappa. She has M.A. and Ph.D. degrees in psychology from the University of California, Berkeley.

AMY PIENTA is associate research scientist and acquisitions director of ICPSR at the University of Michigan. She is also a research affiliate at the Center on the Demography of Aging and the Population Studies at the University of Michigan. At ICPSR, she oversees new data acquisitions. Major responsibilities include identifying new data collections in the social sciences, negotiating with potential data depositors, strategic planning for new data acquisitions, and developing standards for data management planning in the social sciences. Dr. Pienta has examined retirement and health transitions that occur in later life using data from the Health and Retirement Study. She started a new project, funded by the National Institute on Aging, to recover a large, longitudinal study of retirement in the 1950s. The mixed, digital (punched cards) and paper record collection offers researchers unique insights into retirement processes in the 1950s as well as an abundance of biomedical data that has never been analyzed before. She has also been at the forefront of studying attributions associated with data sharing behavior of the social sciences and has carried out a large-scale survey of PIs in the social sciences. She is active in both social science (ASA, PAA, GSA) and digital preservation communities (iPres).



ALAN PORTER is professor emeritus of industrial & systems engineering, and of public policy, at Georgia Tech, where he remains co-director of the Technology Policy and Assessment Center. He is also director of R&D for Search Technology, Inc., Norcross, GA. He is author of some 230 articles and books, including *Tech Mining* (Wiley, 2005) and *Forecasting and Management of Technology* (Wiley, 2011). Current research emphasizes "forecasting innovation pathways" for newly emerging technologies. This entails text mining of science, technology & innovation information resources. He is working on data visualizations, including "science overlay maps," to depict and help manage innovation, keying on nano science & engineering. The aim is to integrate quantitative and qualitative analyses—of the emerging technology and key contextual forces—to array promising innovation pathways. He and colleagues are pursuing bibliometric measures, text mining, and science overlay maps to assess interdisciplinarity and research knowledge diffusion.



LISA M. PYTLIKZILLIG is a social and educational researcher at the University of Nebraska Public Policy Center. She currently serves as PI on a NSF-funded research project examining effective public participation and science communication (SciSIP) and on an NSF project examining distrust and unauthorized online activities (SATC); and as co-PI on an NSF project involving trust in government (LSS). Her research interests, in these and other projects that she works on, involve advancing understanding what works for what purposes and why in the design and implementation of public engagement activities. Dr. Pytlikzillig has also conducted applied and basic research on motivation, engagement, attitudes, personality, and learning in a broad range of contexts. She has published in journals such as *American Review of Public Administration*; *Assessing Writing*; *Behavioral Sciences & the Law*; *Community Mental Health Journal*; *Electronic Journal of e-Government*; *International Journal of Environmental, Cultural, Economic and Social Sustainability*; *International Journal of Science in Society*; *Journal of Applied Meteorology and Climatology*; *Journal of Contemporary Educational Psychology*; *Personality and Social Psychology Bulletin*; *Review of Policy Research*; and *Transforming Government: People, Process and Policy*. She received her Ph.D. from the University of Nebraska-Lincoln.

WILLIAM RIBARSKY is the Bank of America endowed chair in information technology at UNC Charlotte and the founding director of the Charlotte Visualization Center. He is currently chair of the Computer Science Department. Dr. Ribarsky received a Ph.D. in physics from the University of Cincinnati. His research interests include visual analytics; 3D multimodal interaction; bioinformatics visualization; sustainable system analytics; visual reasoning; and interactive visualization of large-scale information spaces. Dr. Ribarsky is the former chair and a current director of the IEEE Visualization and Graphics Technical Committee. He is also a member of the overall steering committees for IEEE VisWeek, which comprises the scientific visualization, information visualization, and visual analytics conferences, the leading international conferences in their respective fields. He was an associate editor of *IEEE Transactions on Visualization and Computer Graphics* and is currently an editorial board member for *IEEE Computer Graphics & Applications*. Dr. Ribarsky co-founded the Eurographics/IEEE visualization conference series (now called EG/IEEE EuroVis) and led the effort to establish the current virtual reality conference series. For the above efforts on behalf of IEEE, Dr. Ribarsky won the IEEE Meritorious Service Award in 2004. In 2007, he was general co-chair of the IEEE visual analytics science and technology (VAST) symposium. Dr. Ribarsky has published over 160 scholarly papers, book chapters, and books. He has received competitive research grants and contracts from NSF, ARL, ARO, DHS, NIH, ONR, EPA, AFOSR, DARPA, NASA, NIMA, US DOT, National Institute of Justice, and several companies.



SUBHRA B. SAHA is an assistant professor in the Department of Economics at Cleveland State University, Ohio. His research interests focus on the spillover effects of science to the local labor markets in different cities of USA. He has looked at the importance of spillovers from science conducted at Universities and other non academic sources. His recent work estimates spillover effects from city science on the labor market outcomes of individuals living outside the metro areas. This research sheds light on the importance of science for economic growth.

It gives policy makers an estimate of the labor market returns from allocating money to scientific projects. He has been awarded research grants from National Science Foundation and Federal Reserve Bank of Cleveland to do work on the economic spillovers of science. He has an M.A. and a Ph.D. in economics from Ohio State University.



JOEL D. SCHERAGA is the senior advisor for Climate Adaptation at the U.S. Environmental Protection Agency (EPA). He is leading EPA's efforts to develop and implement a climate change adaptation plan to ensure its programs, policies, rules, and operations are effective even as the climate changes. He also represents EPA on the federal Interagency Climate Change Adaptation Task Force, established by Executive Order in October 2009 to develop recommendations for President Obama on how the nation might adapt to climate change impacts. Prior to

assuming his current position, Dr. Scheraga served as the national program director for EPA's Global Change Research Program in the Office of Research and Development from 1998-2009. He participated in the Intergovernmental Panel on Climate Change (IPCC), which was awarded the 2007 Nobel Peace Prize. Dr. Scheraga is a Fellow of the Institute for Science, Technology, and Public Policy in The Bush School of Government and Public Service at Texas A&M University. He is an ex-officio member of the National Research Council's Climate Change Education Roundtable. Dr. Scheraga received an A.B. degree in geology-mathematics/physics from Brown University in 1976, an M.A. in economics from Brown University in 1979, and a Ph.D. in economics from Brown University in 1981.



CHRISTIAN SCHUNN is a senior scientist at the Learning Research and Development Center and professor of psychology, learning sciences and policy, and intelligent systems at the University of Pittsburgh. He directs a number of research projects studying the cognition of expert engineering and science teams and the effects of new tools designed to increase innovation. He also leads research projects that apply this knowledge to building innovative technology-supported STEM curricula, and studying factors that influence student

and teacher STEM learning. He is a fellow of AAAS and of APA. He has served on two National Academy of Engineering committees, *K-12 Engineering Education* and *K-12 Engineering Education Standards*. He is currently the chair of the Executive of the *International Society for Design & Development in Education*. He has an M.S. and Ph.D. in psychology from Carnegie Mellon University.

SCOTT STERN is School of Management distinguished professor and chair of the Technological Innovation, Entrepreneurship, and Strategic Management Group at the Sloan School at MIT. He explores how innovation — the production and distribution of "ideas" — differs from more traditional economic goods, and the implications of these differences for entrepreneurship, business strategy, and public policy. He works widely with both companies and governments in understanding the drivers and consequences of innovation and entrepreneurship. Professor Stern received his Ph.D. from Stanford University, and started his career at MIT from 1995-2001. Stern has also previously held positions as a professor at the Kellogg School of Management, and a senior fellow at the Brookings Institution, before returning to MIT in 2009. He is the director of the Innovation Policy Working Group at the National Bureau of Economic Research. In 2005, he was awarded the Kauffman Prize Medal for Distinguished Research in Entrepreneurship.

ERIC T. STUEN is assistant professor of economics in the Department of Business at the University of Idaho. Prior to this position he was a graduate research assistant in the Institute of Behavioral Science of the University of Colorado at Boulder. His research is focused on the importance of international flows of researchers, especially students, to the conduct of science, as well as the determinants of such flows. He is also engaged in the study of technology transfer between universities and industry. Professor Stuen's research is forthcoming in the *Economic Journal*, and has previously been published in the *Journal of Business and Economic Studies* and *Asian Economic Papers*. He serves on a committee that advises the Idaho Legislature on budget forecasts. He has been co-investigator of an NSF research grant and has been awarded small grants by the National Bureau of Economic Research and the University of Idaho. He holds M.A. and Ph.D. degrees in economics from the University of Colorado at Boulder.



TIMOTHY J. STURGEON is senior research affiliate at the Industrial Performance Center (IPC) at the Massachusetts Institute of Technology (MIT) and co-organizer of the Global Value Chains Initiative (<http://www.globalvaluechains.org>). He is co-principle investigator (with UC Berkeley's Clair Brown) of the National Survey of Organizations to Study Globalization, Innovation and Employment; funded by the National Science Foundation. He served as coordinator of the MIT IPC Services Offshoring Working Group, and was lead author of its final report, released in September 2006. Prior to this, he served as executive director of the IPC's Globalization Study; globalization research director for the International Motor Vehicle Program at MIT's Center for Technology, Policy and Industrial Development; and director of the MIT/Carnegie Mellon Project on Globalization and Jobs in the Automotive Industry, funded by the Alfred P. Sloan Foundation. He has taught, lectured, and conducted field research in dozens of countries, with a focus on the evolution of global value chains in the automotive and electronics industries. He is co-editor (with Momoko Kawakami) of *Local Learning in Global Value Chains: Experiences from East Asia*, published by Palgrave Macmillan, and has published his research in international peer-reviewed journals including *Studies in Comparative International Development*, *Industrial and Corporate Change*, *Review of International Political Economy*, *Journal of East Asian Studies*, and *Journal of Economic Geography*.



KIM TALLBEAR is assistant professor of science, technology, and environmental policy at the University of California, Berkeley. In 2012-13 she is also a Donald D. Harrington fellow in anthropology at the University of Texas, Austin. She studies how genomics is co-constituted with ideas of race and indigeneity. Her book, *Native American DNA: Origins, Ethics, and Governance*, is forthcoming with the University of Minnesota Press in 2013. Her more recent research is entitled:

"Constituting Knowledge across Cultures of Expertise and Tradition: Indigenous Bio-scientists." Professor Tallbear is interested in the role of Native American and other indigenous scientists in the democratization of bio-scientific fields. She is also interested in their role in the development of scientific governance within tribes. She has published research, policy, review, and opinion articles on a variety of issues related to science, technology, environment, and culture in journals including *Aboriginal Policy Studies*, *The Journal of Law Medicine, and Ethics; Science; The Wicazo Sa Review*, *International Journal of Cultural Property*; and *Indian Country Today*. She has a chapter, "Native-American-DNA.com: In Search of Native American Race and Tribe" in the volume, *Revisiting Race in a Genomic Age* (2008). She also blogs and tweets on science, technology, and indigenous issues at www.kimtallbear.com. Her research is funded by the National Science Foundation (NSF) Directorate for Social, Behavioral and Economic Sciences. She is enrolled Sisseton-Wahpeton Oyate and is also descended from the Cheyenne & Arapaho Tribes of Oklahoma.



MARK ZACHARY TAYLOR, formerly a solid-state physicist, now specializes in international relations, political economy, and comparative politics. In his research, he seeks to explain why some countries are better than others at science and technology, even amongst the industrialized democracies. He uses statistical analysis of patents, scholarly publications, and high technology production data combined with country-level case studies, to test the relative impact of domestic political institutions versus international relationships on national innovation rates. He shows that while institutions such as democracy, markets, and property rights are important for long-run technological progress, certain kinds of international relationships are even more vital for the acquisition and maintenance of national scientific capabilities. He also contends that technological innovation is not a natural result of "good" domestic institutions, but is a rational response to specific sets of national security problems. These findings have important implications for theories of international relations and political economy, as well as immigration, education, and FDI policies. He has recently begun to investigate the role of national culture in innovation and S&T policy. In addition to his work on technological innovation, Zak's research interests include the politics of science, comparative democratic institutions, and the politics of economic growth & structural adjustment. His research has appeared in the journals *Foreign Affairs*, *International Organization*, *Security Studies*, *Harvard International Review*, *Review of Policy Research*, *Journal of Business Venturing*, and the *Journal of Political Science Education*. He received a B.A. in physics from the University of California-Berkeley, an MA

in international relations from Yale University, and a Ph.D. in political science from Massachusetts Institute of Technology.



ALBERT H. (AL) TEICH is research professor of science, technology and international affairs at George Washington University's Center for International Science and Technology Policy (CISTP). His major current interests are in globalization and its impacts on U.S. science and technology and in government budgeting and priority-setting for research. He came to CISTP in February 2012, following a distinguished 32-year career with the American Association for Advancement of Science. From 1990 through 2010, he served as director of science & policy programs and in 2011 as senior policy adviser for the association. Under his leadership, science policy activities at AAAS grew from a small set of programs to one of the nation's leading S&T policy centers, encompassing policy fellowship programs that annually bring over 200 scientists and engineers to Washington to spend a year working in the federal government; an internationally-respected program of R&D budget analysis; as well as programs in research competitiveness; science and human rights; scientific freedom and responsibility; and a unique program of dialogue on science, ethics, and religion. Dr. Teich is a fellow of AAAS and the recipient of the 2004 Award for Scientific Achievement in Science Policy from the Washington Academy of Sciences. He is past president of the Academy; past chair of the Board of Governors of the U.S.-Israel Binational Science Foundation, where he remains a member of the Board; a member of the technical advisory committee of the Maine Space Grant Consortium; the program committee for the 2012 Euroscience Open Forum in Dublin, and the advisory committee to the California Science and Technology Policy Fellowship Program. He is the author of numerous articles and editor of several books, including *Technology and the Future*, the most widely used college textbook on technology and society. First published in 1972, the book marked its 40th anniversary in print with its twelfth edition, published by Thompson Cengage Learning in January 2012. He holds a bachelor's degree in physics and a Ph.D. in political science, both from M.I.T.



JERRY G. THURSBY is a member of the strategic management faculty of Georgia Institute of Technology and holds the Ernest Scheller, Jr. chair in innovation, entrepreneurship, and commercialization. Prior to joining Georgia Tech in 2007 Professor Thursby was the Goodrich C. White professor of economics and chair, Department of Economics, Emory University. He has also held faculty appointments with Syracuse University, Ohio State University, and Purdue University. Professor Thursby has published extensively in the areas of econometrics, international trade, and the commercialization of early stage technologies with a particular interest in the role of university science in national innovation systems. His work has appeared in such publications as *American Economic Review*, *Journal of the American Statistical Association*, *Review of Economics and Statistics*, *Quarterly Journal of Economics*, *Research Policy*, *Management Science* and *Science*. He currently serves on the editorial board of *The Journal of Technology Transfer* and is an associate editor of *The Journal of Productivity Analysis*. He has a Ph.D. in economics from the University of North Carolina

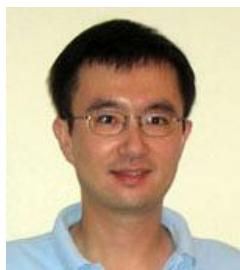


ALAN J. TOMKINS is director of the University of Nebraska Public Policy Center and professor of psychology and law at the University of Nebraska-Lincoln. He currently serves as PI on NSF-funded research projects examining trust in government (LSS); co-PI on an NSF project examining distrust and unauthorized online activities, such as hacking (SATC); and co-PI on effective public participation and science communication (SciSIP). Also, he oversees a multi-year project in which the City of Lincoln obtains citizen input for its budget, and he is a participant in an NIJ-funded project that has created a location-based application for law enforcement officers to use to identify persons of interest (warrants, sex offenders, gang members, etc.). Dr. Tomkins also has research interests in justice and fairness issues and acceptance of technology. In 2011-12, he served as a Franklin Fellow with the U.S. Department of State, working on issues related to food security. He has recently published in such diverse journals as: *American Review of Public Administration*; *Behavioral Sciences & the Law*; *Electronic Journal of e-Government*; *International Journal of Science in Society*; *Journal of Public Administration Research and Theory*; *Judicature*; *Law & Development Review*; *Psychology, Public Policy, and the Law*; *Review of Policy Research*; *Small Group Research*; and *Transforming Government: People, Process and Policy*. Since 2007 he has served as co-editor of *Court Review* (<http://aja.ncsc.dni.us/htdocs/publications-courtreview.htm>), journal of the American Judges Association, and prior to *Court Review* he served 12 years as Co-Editor and Editor for *Behavioral Sciences & the Law*. He has a J.D. and Ph.D. from Washington University.



CHARLES M. VEST is president of the National Academy of Engineering and president emeritus of the Massachusetts Institute of Technology. He earned a B.S. in mechanical engineering from West Virginia University, and M.S.E. and Ph.D. degrees in mechanical engineering from the University of Michigan. Previously, he was on the faculty of the University of Michigan as an assistant professor where he taught in the areas of heat transfer, thermodynamics, and fluid mechanics, and conducted research in heat transfer and engineering applications of laser optics and holography. He and his graduate students developed techniques for making quantitative measurements of various properties and motions from holographic interferograms, especially the measurement of three-dimensional temperature and density fields using computer tomography. He turned much of his attention to academic administration at the University of Michigan, serving as associate dean of engineering from 1981-86, dean of engineering from 1986-1989, when he became provost and vice president for academic affairs. In 1990 he became president of the Massachusetts Institute of Technology (MIT) and served in that position until December 2004. As president of MIT, he was active in science, technology, and innovation policy; building partnerships among academia, government and industry; and championing the importance of open, global scientific communication, travel, and sharing of intellectual resources. During his tenure, MIT launched its OpenCourseWare (OCW) initiative; co-founded the Alliance for Global Sustainability; enhanced the racial, gender, and cultural diversity of its students and faculty; established major new institutes in neuroscience and genomic medicine; and redeveloped much of its campus. He was a director of DuPont for 14 years and of IBM for

13 years; was vice chair of the U.S. Council on Competitiveness for eight years; and served on various federal committees and commissions, including the Presidents Committee of Advisors on Science and Technology (PCAST) during the Clinton and Bush administrations, the Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, the Secretary of Education's Commission on the Future of Higher Education, the Secretary of State's Advisory Committee on Transformational Diplomacy and the Rice-Chertoff Secure Borders and Open Doors Advisory Committee. He serves on the boards of several non-profit organizations and foundations devoted to education, science, and technology. In July 2007 he was elected to serve as president of the U.S. National Academy of Engineering (NAE) for six years. He has authored a book on holographic interferometry, and two books on higher education. He has received honorary doctoral degrees from seventeen universities, and was awarded the 2006 National Medal of Technology by President Bush and received the 2011 Vannevar Bush Award.



PING WANG is an associate professor at the College of Information Studies – Maryland's iSchool. He is also an affiliate associate professor at the Decision, Operations, and Information Technologies department of the R. H. Smith School of Business at the University of Maryland, and a faculty member of the Human-Computer Interaction Lab (HCIL). Dr. Wang's research addresses how and why organizations innovate with information technologies. Specifically, his research seeks to understand the popularity of IT innovations and the effects of popular innovations on organizations. At Maryland, he leads two interdisciplinary research teams, both supported by grants from the National Science Foundation, to apply information retrieval and natural language processing to innovation research and to develop large-scale datasets and visual analytic tools for monitoring and understanding innovation trends in IT, biotechnology, and nanotechnology. Dr. Wang received his Ph.D. from UCLA Anderson School of Management.



GRIFFIN WEBER is the chief technology officer of Harvard Medical School and an assistant professor of medicine in the Department of Medicine at Beth Israel Deaconess Medical Center in Boston, Massachusetts. His research is in the area of expertise mining and social network analysis. He invented Harvard Catalyst Profiles (<http://profiles.catalyst.harvard.edu>), which is an open source Web site that creates research profiles for an institution's faculty, and links these together through both Passive Networks, which are automatically generated based on information known about investigators, and Active Networks, which users themselves create by indicating their relationships to other researchers. These networks have numerous applications, ranging from finding individual collaborators and mentors to understanding the dynamics of an entire research community. Dr. Weber currently has an NSF grant to use this software to connect computer scientists from several universities around the country. He is also an investigator on Informatics for Integrating Biology and the Bedside (i2b2), an NIH National Center for Biomedical Computing, for which he helped develop a web-based open source platform for querying and analyzing clinical data repositories. He received his M.D. and

Ph.D. in computer science from Harvard University and has worked on numerous biomedical informatics projects, such as analyzing DNA microarrays, modeling the growth of breast cancer tumors, developing algorithms to predict life expectancy, and building a medical education Web portal.



CATHERINE J. WEINBERGER is a labor economist with current research focus on broadening participation in the science and engineering workforce, the dynamics of individual-level progress into the upper tail of the earnings distribution, and relationships between adolescent characteristics and adult labor market outcomes. She served on the NAS CNS Panel to Assess the Benefits of the American Community Survey for the NSF Science Resources Statistics Division.

Dr. Weinberger studied mathematics at the bachelor's and master's degree levels before completing a Ph.D. in economics at the University of California, Berkeley, with focus on game theory and labor economics.



JAN L. YOUTIE is director of policy research services and principal research associate in Innovation Partners, a unit of Georgia Tech's Enterprise Innovation Institute. She also is an adjunct professor in Georgia Tech's School of Public Policy and co-founder of the program in Science, Technology, and Innovation Policy. Dr. Youtie's research focuses on manufacturing competitiveness, technology-based economic development, emerging-technology assessment, and innovation and knowledge measurement and evaluation. She has been principal investigator in studies sponsored by the U.S. Department of Commerce, National Science Foundation, European Commission, U.N. Development Program, Aspen Institute, Southern Technology Council, and Georgia Research Alliance among others. Her research received the Lang Rosen Gold Award for best article by the Journal of Technology Transfer, and it also has appeared in Research Policy, Economic Development Quarterly, Technovation, Evaluation and Program Planning, Nature Nanotechnology, and many other journals. She holds a doctorate in political science from Emory University.



YILU ZHOU is an assistant professor of information systems and technology management in the School of Business at George Washington University (GWU). Her research interests include business intelligence, Web/text/data mining, multilingual knowledge discovery and human computer interaction. Most specifically, she investigates and explores computational, intelligent, and automatic ways to discover interesting and useful patterns in news articles, Web sites, forum, and other social media. Dr. Zhou received a Ph.D. in management information systems at the University of Arizona where she was also a research associate at the Artificial Intelligence Lab. She received her B.S. in Computer Science from Shanghai Jiaotong University. She has published in academic journals including *Journal of the American Society for Information Science and Technology*, *IEEE Intelligent Systems and Decision Support Systems*.



NIKOLAS ZOLAS is a research economist with the Center for Economic Studies at the U.S. Census Bureau. He recently received his Ph.D. in economics from the University of California, Davis. His research interests focus on international technology transfer, innovation and international trade. Specifically, he is interested in uncovering how firms transfer their technologies abroad and the policies that support innovation and technology diffusion. His dissertation looked at how firms decide where to patent and the effect of trade liberalization on domestic innovation levels. In addition, Dr. Zolas worked on two data projects that concord patent and trademark data with commonly-used industry classification codes. Prior to completing his Ph.D., he worked in municipal finance for 3 years and started a non-profit organization dedicated to sending school supplies to Africa.