

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.

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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

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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

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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

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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

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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 founded 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 for 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.



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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.



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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

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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

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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

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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.

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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

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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.



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“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

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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

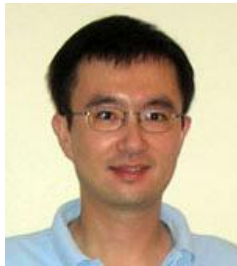


ALAN J. TOMKINS is director of the University of Nebraska Public Policy Center and professor of psychology and law at the University of Nebraska-Lincoln. He currently serves as PI on NSF-funded research projects examining trust in government (LSS); co-PI on an NSF project examining distrust and unauthorized 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.



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