Edward J. Hackett

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# Education

Colgate University (B.A., 1973, Social Relations, honors)

Cornell University (Ph.D., 1979; M.A., 1976, Sociology)

# Employment

Vice Provost for Research, Brandeis University and Professor, Florence Heller School for Social Policy and Management (2015-20)

Professor (by courtesy) Tufts Clinical and Translational Science Institute (2017-20)

Professor, School of Human Evolution and Social Change, Arizona State University, Tempe, AZ (2005 – 2015; Associate Director 2011-14); also appointed in the Barrett Honors College, Consortium for Science, Policy & Outcomes, School of Sustainability, and the Center for Biology and Society;

Director, Division of Social and Economic Sciences, National Science Foundation, 2006-08 (on loan from university);

Professor, Department of Sociology, Arizona State University, Tempe, AZ (1997- 2004);

Program Officer, National Science Foundation, Science and Technology Studies Program (January 1996-August 1998, on loan from university);

Assistant to Associate Professor (1984-1997), Rensselaer Polytechnic Institute, Department of Science and Technology Studies;

Adjunct Professor, Rockefeller University, Laboratory of Molecular Genetics and Informatics (1992-1995);

Research Scientist, American Institutes for Research, Cambridge, MA, (1980-1982);

Research Associate, Boston University, Center for Applied Social Science, (1979-1984);

Postdoctoral Fellow, Cornell University, Department of Sociology, (1978-1979).

**Leadership Experience**

Vice Provost for Research, Brandeis University

Director, Division of Social and Economic Sciences, National Science Foundation.

Associate Director, School of Human Evolution and Social Change.

Editor, *Science, Technology & Human Values*.

Director, Walton Fellows Program, ASU Global Institute of Sustainability.

Chair, Personnel Committee, School of Human Evolution and Social Change.

Chair, Faculty Honors Council, Arizona State University.

Program Director, Science and Technology Studies Program, National Science Foundation.

# Publications

Handbook of Science and Technology Studies. Edward J. Hackett, Olga Amsterdamska, Michael E. Lynch, and Judy Wajcman, eds., MIT Press, 2008. Chinese translation published by Tsinghua University Press, 2011

Peerless Science: Peer Review and U.S. Science Policy. Daryl E. Chubin and Edward J. Hackett, State University of New York Press, 1990. Chinese translation published by Peking University Press, 2010.

Scientific Collaboration, editor, special issue of Social Studies of Science, 35 (5), October 2005, editor.

Collaboration for Sustainability, editor, special issue of Sustainability, November 2020.

## ***Articles and Chapters***

“Collaboration and Sustainability: Making Science Useful, Making Useful Science,” editor’s introduction to special issue of Sustainability on “Collaboration for Sustainability.” November 2020. Available online at https://urldefense.com/v3/\_\_https://www.mdpi.com/journal/sustainability/special\_issues/collaboration\_sustainability\_\_;!!IKRxdwAv5BmarQ!Ph8m7iX1rGhb5BqO01Ix25NoJ65PGxvp-4e4ZgMre8OZobxeb30mG0p\_pVYaSqBnkPN8EA$

“Do Synthesis Centers Synthesize? A Semantic Analysis of Topical Diversity in Research.” Edward J. Hackett, Erin Leahey, John N. Parker, Ismael Rafols, Stephanie E. Hampton, Ugo Corte; Diego Chavarro, John M. Drake, Bart Penders, Laura Sheble, Niki Vermeulen, Todd J. Vision. *Research Policy* January 2021. Open Access: https://doi.org/10.1016/j.respol.2020.104069

“Data Management and Data Sharing in Science and Technology Studies,” Jane Maienschein, John N. Parker, Manfred Laubichler, and Edward J. Hackett. *Science, Technology & Human Values* 44 (1): 143-160, 2019.

“Using Sociometers to Advance Small-Group Research,” John Parker, Edgar Cardenas, Alexander Dorr, and Edward J. Hackett, *Sociological Methods and Research*, published online May 2, 2018. https://doi.org/10.1177/0049124118769091

“The Social and Epistemic Organization of Scientific Work.” Edward J. Hackett, John N. Parker, Niki Vermeulen, and Bart Penders. Pp. 733-764 in Ulrike Felt, Rayvon Fouché, Clark Miller, and Laurel Smith-Doerr, eds., *Handbook of Science and Technology Studies*. Cambridge, MA: MIT Press, 2017.

“From Salomon’s House to Synthesis Centers.” Edward J. Hackett and John N. Parker. Pp 53-87 in Thomas Heinze and Richard Muench, eds., Intellectual and Institutional Innovation in Science. Palgrave (Macmillan), 2016.

Cymene Howe, Jessica Lockrem, Hannah Appel, Edward Hackett, Dominic Boyer, Randal Hall, Matthew Schneider-Mayerson, Albert Pope, Akhil Gupta, Elizabeth Rodwell, Andrea Ballestero, Trevor Durbin, Farès el-Dahdah, Elizabeth Long, and Cyrus Mody. “Paradoxical Infrastructures: Ruins, Retrofit, and Risk”

*Science, Technology & Human Values* first published on December 23, 2015 as doi:10.1177/0162243915620017

Moore, Sharlissa M. and Edward J. Hackett 2016 “The Construction of Technology and Place: Concentrating Social Power Conflicts in the United States.” Energy Research & Social Science 11: 67-78.

Edward J. Hackett and John N. Parker 2015 “Ecology Reconfigured: Organizational Innovation, Group Dynamics and Scientific Change.” Pp. 153-172 in Martina Merz and Philippe Sormani, eds., The Local Configuration of New Research Fields, Sociology of Sciences Yearbook 29. Switzerland: Springer.

Kintigh, Keith W., Jeffrey H. Altschul, Ann P. Kinzig, W. Fredrick Limp, William K. Michener, Jeremy A. Sabloff, Edward J. Hackett, Timothy A. Kohler, Bertram Ludäscher, and Clifford A. Lynch 2015 “Cultural Dynamics, Deep Time, and Data: Planning Cyberinfrastructure Investments for Archaeology.” *Advances in Archaeological Practice* 3(1):1-15.  DOI: [10.7183/2326-3768.3.1.1](http://dx.doi.org/10.7183/2326-3768.3.1.1)

“Science and Emotions.” John N. Parker and Edward J. Hackett. Pp. 549-572 in Jan Stets and Jonathan Turner, eds., The Handbook of the Sociology of Emotions. NY: Springer, 2014.

“Hot Spots and Hot Moments in Scientific Collaborations and Social Movements,” John N. Parker and Edward J. Hackett. American Sociological Review, 77: 1, 21-44 (February 2012).

“Environmental Injustice in the Urban Southwest: A Case Study of Phoenix, Arizona,” Bob Bolin, Sara Grineski, Edward J. Hackett. In Malloy, Brock, Floyd, Livingston, and Webb, eds., Design with the Desert: Conservation and Sustainable Development, Taylor and Francis, 2013.

“Engaged, Embedded, Enjoined: Science and Technology Studies in the National Science Foundation.” Edward J. Hackett and Diana R. Rhoten. Science and Engineering Ethics, 2011.

“Leadership of Scientific Research Groups,” Edward J. Hackett and John N. Parker, in Leadership in Science and Technology: A Reference Handbook. William Sims Bainbridge, ed., Thousand Oaks, CA: Sage, 2011.

“Possible Dreams: Research Technologies and the Transformation of the Human Sciences,” Edward J. Hackett, The Handbook of Emergent Technologies in Social Research. Sharlene Hesse-Biber, ed., New York: Oxford University Press, 2011.

“Peer Review and the Social Sciences.” Edward J. Hackett, in World Social Science Report, 2009-2010. Paris: UNESCO, 2010.

“The Snowbird Charrette: Interdisciplinary Collaboration in Environmental Research Design.” Edward J. Hackett and Diana R. Rhoten. Minerva 47 (4): 407-440, December 2009.

**“**Accelerate Synthesis in Ecology and Environmental Sciences,” Carpenter, Stephen R., Virginia Armbrust, Peter W. Arzberger, F. Stuart Chapin III, James J. Elser, Edward J. Hackett, et al., BioScience 59 (8): 699-701, 2009.

“The Act of Collaborative Creation and the Art of Integrative Creativity: Originality, Disciplinarity, and Interdisciplinarity.” Diana Rhoten, Erin O’Connor, and Edward J. Hackett, Thesis Eleven, 96 (Feb 2009): 83-108.

“Ecology Transformed: NCEAS and the Changing Patterns of Ecological Research.” Edward J. Hackett, John N. Parker, David Conz, Diana Rhoten, and Andrew Parker. Pages 277-296 in Gary Olson, Ann Zimmerman, Nathan Bos, eds., Scientific Collaboration on the Internet, MIT Press, 2008.

“Discovering ‘What’s Innovative’: The Challenge of Evaluating Education Research and Development Efforts.” Robert K. Yin, Edward J. Hackett, Daryl E. Chubin. Peabody Journal of Education 83 (4):674-690, 2008.

“Examining the Significance of Housing Enclaves in the Metropolitan United States of America.” Kirby, Andrew, Sharon L. Harlan, Larissa Larsen, Edward J. Hackett, Bob Bolin, Amy Nelson, Tom Rex, and W. Shappard Wolf. Housing, Theory, and Society 23 (7): 19-33, 2006.

“Essential Tensions: Identity, Control, and Risk in Research,” Edward J. Hackett, Social Studies of Science, 35 (5): 787-826, October 2005.

“Tokamaks and Turbulence: Research Ensembles, Policy and Technoscientific Work.” Edward J. Hackett, David Conz, John Parker, Jonathon Bashford, and Susan DeLay. Research Policy 33 (5): 747-67, 2004.

“Bonding and Bridging: Understanding the Relationship between Social Capital and Civic Action.” Larissa Larsen, Sharon Harlan, Robert Bolin, Edward Hackett, Diane Hope, Andrew Kirby, Amy Nelson, Tom Rex, Shappard Wolf. Journal of Planning Education and Research, 24: 64-77, 2004.

“La peer review nella teoria e nella pratica” and “Incrementare la ‘peer review’: Il posto della valutazione della ricera.” Both by Daryl E. Chubin and Edward J. Hackett, pp. 89-124 and 355-90 in R. Viale and A. Ceroni, eds., Valutare la Scienza, Rubbetino: 2003.

“The Ecology of Technological Risk in a Sunbelt City.” Bolin, Bob, Amy Nelson, Edward J. Hackett, K. David Pijawka, C. Scott Smith, Diane Sicotte, Edward K. Sadalla, Eric Matranga, Maureen O’Donnell. Environment and Planning A 34:317-39, 2002.

“Environmental Equity in a Sunbelt City: The Spatial Distribution of Toxic Hazards in Phoenix, Arizona.” Bolin, Bob, Eric Matranga, Edward J. Hackett, Edward K. Sadalla, K. David Pijawka, Debbie Brewer, Diane Sicotte. Environmental Hazards 2: 11-24, 2000.

“Organizational Perspectives on University-Industry Research Relations,” in Jennifer Croissant and Sal Restivo, eds., Degrees of Compromise. SUNY Press, 2000.

“Interdisciplinary Initiatives at the National Science Foundation,” Edward J. Hackett, pp. 248-259 in Peter Weingart and Nico Stehr, eds., Practising Interdisciplinarity, University of Toronto Press, 2000.

“Trends and Opportunities in Science and Technology Studies,” Edward J. Hackett in David D. Kumar and Daryl E. Chubin, eds., Science, Technology and Society: A Sourcebook on Research and Practice. New York: Plenum, 2000.

“Setting Boundaries between Science and Law: Lesson from Daubert v. Merrill-Dow Pharmaceuticals, Inc.” Shana Solomon and Edward J. Hackett, Science, Technology and Human Values 21(2)131-56, 1996.

“Peer Review and the Courts, or When Scientists Get ‘Real’,” Daryl E. Chubin, Edward J. Hackett, and Shana M. Solomon, Accountability in Research, 4(1): 1-8, 1996.

“A Social Control Perspective on Scientific Misconduct,” Edward J. Hackett, Journal of Higher Education 65(3):242-260, 1994. Reprinted in John Braxton, ed., Perspectives on Scholarly Misconduct in the Sciences. Columbus, Ohio: Ohio State University Press, 1999.

“The Place of Peer Review in Science and Science Policy,” Edward J. Hackett, in Mark Frankel and Jane Cave, eds., Evaluating Science and Scientists. Budapest: Central European University Press, 1997.

“A New Perspective on Scientific Misconduct,” Edward J. Hackett, Academic Medicine 68 (9): S72-S76, 1993.

“Industry, Academe, and the Values of Undergraduate Engineers,” Edward J. Hackett, Jennifer Croissant, and Blair Schneider, Research in Higher Education 33(3): 275-95, 1992. Reprinted in Jennifer Croissant and Sal Restivo, eds., Degrees of Compromise. SUNY Press, 2000.

“Women’s and Men’s Perspectives about the Effects of New Technology at Work,” Edward J. Hackett, Philip H. Mirvis, Amy L. Sales. Group and Organization Studies 16(1): 60-85, 1991.

“The Implementation and Adoption of New Technology in Organizations: The Impact on Work, People, and Culture,” Philip H. Mirvis, Amy L. Sales, Edward J. Hackett. Human Resource Management 30(1): 113-39, 1991.

“Science as a Vocation in the 1990s: The Organizational Culture of Academic Science,” Edward J. Hackett, Journal of Higher Education 61(3):241-279, 1990. Reprinted in Jennifer Croissant and Sal Restivo, eds., Degrees of Compromise. SUNY Press, 2000.

“Funding and Academic Research in the Life Sciences,” Edward J. Hackett. Science and Technology Studies 5(3/4): 134-47, 1988.

“Promotion Opportunity in Organizations: Causes and Consequences,” William T. Markham, Sharon L. Harlan, Edward J. Hackett. Research in Personnel and Human Resources Management 5: 223-287, 1987.

“Federal Job Training Programs and Employment Outcomes: Effects by Sex and Race of Participants,” Sharon L. Harlan and Edward J. Hackett. Population Research and Policy Review 4: 235-265, 1985.

“Employee Participation in a Quality Circle Program: Impact on Quality of Work Life, Productivity, and Absenteeism,” Mitchell L. Marks, Philip H. Mirvis, Edward J. Hackett, James Grady. Journal of Applied Psychology 71(1): 61-69, 1986. This paper received the Scholarly Contribution Award from the Organizational Behavior Division of the Academy of Management, 1987.

“Work and Work Force Characteristics in the Nonprofit Sector,” Philip H. Mirvis and Edward J. Hackett. Monthly Labor Review, April 1983:3-12.

# Research Grants

National Science Foundation, 2017-18, Principal Investigator, “Science as a Vocation: A Centennial Perspective,” 1743873, $50,000, Co-PIs: Grit Laudel and Jochen Glaser.

National Science Foundation, 2012-15, Principal Investigator “Sensible Science: A Sociometric Approach to Collaboration,” 1242749, $254,898, Co-PI: John Parker.

National Science Foundation, 2013-14, Principal Investigator, “Doctoral Dissertation Research: The Life of a Vision: Power and Energy Justice in the Mediterranean Region,” $17,999 (Co-PI: Sharlissa Moore).

National Science Foundation, 2004-07, Co-Principal Investigator (with Diana Rhoten, Social Science Research Council), “Integrative, Interdisciplinary Graduate Education: New Concepts and Approaches for Assessment, 0355353, $1,277,617.

National Science Foundation, 2000-05; 2005 - 11, Co-Principal Investigator, “Integrative Graduate Education and Research Training in Urban Ecology,” 9987612, $2,698,494; 0504248 $3,234,586.

National Center for Environmental Analysis and Synthesis, Santa Barbara, CA, 1999-04, Principal Investigator, “Ecology Transformed?” Support to study and to organize working groups about new forms of research collaboration, $41,000.

National Science Foundation, 1995-04, Principal Investigator, “A Longitudinal Study of Research Groups in Science and Engineering,” 9511634, $447,813.

National Science Foundation, 1997-2006, Core Scientist, “Central Arizona-Phoenix Long Term Ecological Research Site: Land Use Change and Ecological Processes in an Urban Ecosystem of the Sonoran Desert, $4,699,239.

Rensselaer Polytechnic Institute, Strategic Initiatives Fund, 1994-95, Principal Investigator, “Educational Innovation, Academic Performance, and Values,” $30,000.

National Science Foundation, 1993-96, Principal Investigator, “Understanding Academic Science and Engineering,” SBE92-22782, $111,920.

Rensselaer Polytechnic Institute, Harlan and Lois Anderson Center for Innovation in Undergraduate Education, 1992-93, Principal Investigator, “Educational Innovation, Academic Performance, and Values,” $21,000.

National Science Foundation, 1987-1990, Co-Principal Investigator, “Ethical and Value Issues in Research Centers,” BBS87-11341, $202,618.

National Science Foundation, 1985-1987, Principal Investigator, “Effects of Incremental Funding Changes in the Life Sciences,” PRA85-14061, $39,896.

New York State, Governor’s Office of Employee Relations, Committee on the Work Environment and Productivity, 1986-1988, Principal Investigator, “Effects of New Technology in New York State Agencies,” $26,478.

Co-Principal Investigator of six organizational research projects for private firms; Deputy Director of Project Connections, a large-scale, multi-year study funded by the Administration for Children, Youth and Families, DHHS (1981-82).

# Major Reports

“Do Synthesis Centers Synthesize? A Semantic Analysis of Diversity and Performance,”

Edward J. Hackett, Erin Leahey, John N. Parker, Ismael Rafols, Stephanie Hampton, Ugo Corte, John M. Drake, Bart Penders, Laura Sheble, Niki Vermeulen, and Todd Vision. bioRxiv posted January 13, 2019. doi: <https://doi.org/10.1101/518605>

“Open STS: Data Sharing in Science and Technology Studies,” John N. Parker, Niki Vermeulen, and others, report of a workshop commissioned by NSF, 2017.

“A Synthesis Center for the Social and Behavioral Sciences,” white paper prepared for the National Science Foundation, Edward J. Hackett and Sander van der Leeuw, October 2010.

“Peer Review for the 21st Century: Applications to Education Research.” Edward J. Hackett and Daryl E. Chubin, National Research Council, National Academy of Sciences, August 2003. Available at [www.nas.org](http://www.nas.org).

“The Phoenix Area Social Survey: Community and Environment in a Desert Metropolis.” Sharon L. Harlan, Larissa Larsen, W. Shappard Wolf, Tom Rex, Amy Nelson, Ed Hackett, Bob Bolin, Andrew Kirby, Diane Hope. Tempe, AZ: Center for Environmental Studies, March 2003. [www.asu.edu/clas/sociology/pass.html](http://www.asu.edu/clas/sociology/pass.html)

“Understanding Academic Science and Engineering: Phase I Report to the National Science Foundation, Edward J. Hackett, 1995.

“Educational Innovation, Academic Performance and Values: Report of the Second Survey of Rensselaer Undergraduates, Edward J. Hackett, David Levinger, and others, 1995.

“Understanding the Social Dynamics and Performance of Research groups,” report commissioned by the COSMOS Corporation in support of their NSF-funded evaluation of the EPSCOR program, 1995.

“Educational Innovation, Academic Performance and Values: Report of the Baseline Survey,” Edward J. Hackett and Shana M. Solomon, 1993.

“Science in the Steady State: The Changing Research University,” Edward J. Hackett. In Funding for Higher Education, NTIS #PB88-177 928IAS, 1988.

The Implementation of New Technology in New York State Agencies, Edward J. Hackett and Sharon L. Harlan. Albany, NY: Governor’s Office of Employee Relations, Committee on the Work Environment and Productivity, 1987.

Project Connections Final Report. Theodore R. Cromack, Edward J. Hackett, Charles N. Goldberg, Gwen Morgan, Chris Caswell. Cambridge, MA: AIR, 1982.

“An Evaluation of NIH Resource Allocations and Research Outputs in Bioscience: Bioscience Specialty Studies,” Robert McGinnis, Edward J. Hackett, Carl B. Backman, Daryl E. Chubin, Kenneth E. Studer. Ithaca, NY: Cornell University, 1979.

**Commentary, Encyclopedia Entries, and Reviews**

“Peer Review” in Ethics, Science, Technology and Engineering: A Global Resource, 2nd ed., edited by J. Britt Holbrook. Farmington Hills, MI: Macmillan.

“Academic Capitalism,” editorial, ST&HV 39 (5): 635-8, November 2014.

“The Vilnius Declaration,” editorial, ST&HV 39 (1): 3-5, January 2014.

“Horizon 2020 and the Social Sciences and Humanities: Commentary,” Pages 171-176 in the Conference Report, edited by Katja Meyer, Thomas Koenig, and Helga Nowotny. Vilnius, Lithuania: Mykolas Romeris University, 2013.

“Science, Technology & Human Values at 40,” editorial, ST&HV 37 (5): 439-442, September 2012.

“Reflections for Looking Forward,” review of Insatiable Curiosity by Helga Nowotny. Science 323: 340-1, 16 January 2009.

“Introduction” to special issue on scientific collaboration, Social Studies of Science 35 (5): 667-672, 2005.

“Research Misconduct,” Edward J. Hackett, John Parker, David Conz. Entry for Science, Technology, and Society: An Encyclopedia, Sal Restivo, ed., New York: Oxford University Press, 2005.

“Peer Review,” Daryl E. Chubin and Edward J. Hackett. Entry for the Encyclopedia of Science, Technology, and Ethics (revised ed.), Carl Mitcham, ed., New York: MacMillan, 2005.

“Four Observations about ‘Six Domains of Research Ethics.’” Science and Engineering Ethics 8 (2) (April 2002).

“The Economics of Science,” Knowledge and Policy 9 (2/3), 1996: 84-86.

Review of Places of Inquiry by Burton Clark, Nature, December 1995.

Review essay of Striking the Mother Lode in Science: The Importance of Age, Place, and Time by Paula Stephan and Sharon Levin, Science, Technology & Human Values 19 (2): 247-252 (Spring 1994).

Review of Responsible Science by a National Academy of Sciences commission, chaired by E.E. David (with S.M. Solomon). BioScience 43 (10): 717-19 (November 1993).

Review of The Idea Factory by Pepper White, The Journal of Higher Education 64 (5): 607-8 (September/October 1993).

Review of Scholarly Communication and Bibliometrics edited by Christine L. Borgman. Contemporary Sociology 21: 142-3 (January 1992).

"On the virtues of self‑study." (Daryl E. Chubin and E.J. Hackett) Science, Technology, and Human Values 14 (1): 96‑99 Winter 1989).

"Science policy and the ecology of research." (Review of Strengthening Academic Science by David Eli Drew with Patricia Raymond.) Contemporary Sociology,1988.

Review of False Prophets: Fraud and Error in Science and Medicine by Alexander Kohn. Isis 79: 3: 298: 500-502. (1988).

"The plight of academic marginals." The Scientist July 27, 1987: 13.

Review of Frame Analysis by Erving Goffman. Cornell Journal of Social Relations, 10: 2 (277‑279).

Review of Stateville: The Penitentiary in Mass Society by James B. Jacobs. Cornell Journal of Social Relations 12: 1 (75‑80).

Review of Industrial Sociology (3rd Ed.) by S.R. Parker, J. Child, and M.A.

Smith. Technology and Culture, 1980 (666‑668).

**Selected Recent Professional Presentations**

“Sociological Ambivalence Revisited,” STS Circle, Harvard University, April 26, 2021.

“From Consilience to Convergence: Lessons from Synthesis Centers,” AAAS Annual Meeting, Austin, TX, February 2018.

“Learning about Collaboration,” invited colloquium, MIT Cross-STS Talk, February 2017.

“Collaboration and Creativity: Lessons from Synthesis Centers,” invited lecture, STS Circle, Harvard University, January 2017.

“Challenges for the Co-Production of Knowledge, invited keynote, WZB conference title “Participatory Settings of Innovation: Challenges for the Co-production of Knowledge,” December 2016.

Invited keynote, Technical University of Berlin workshop on “Academic Careers and Knowledge Production,” Berlin, September 2016.

“Group Creativity: Lessons from Synthesis Centers,” keynote for the Science of Team Science conference, Phoenix, May 16, 2016.

“Environmental Research Charrette: An Experiment in Interdisciplinary Education and Collaboration,” invited keynote, NSF workshop on the evaluation of interdisciplinary graduate education programs, Berkeley, CA, May 2016.

“From Salomon’s House…” keynote address for the GREAT conference, Oklahoma Health Center, Oklahoma City, March 31, 2016. Also given at St. Michael’s College and Norwich University, Vermont, as part of Sigma Xi Distinguished Lectureship.

“Transforming Science: The Process and Performance of Scientific Synthesis.” Resource Politics: Transforming Pathways to Sustainability, Sussex, England, September 7-9, 2015.

“Organizational Patterns, Institutional Arrangements, and Their Contribution to Interdisciplinary Research,” invited lecture, Workshop of Working Group 5 (Science in Transition) of the Research, Innovation, and Science Policy Expert High-Level Group (RISE), WZB, Berlin, April 13, 2015.

“Transforming Science,” invited keynote, International Social Science Council Transformative Knowledge Workshop, Potsdam, Germany, November 2014.

“Perspectives on Transformative Science,” invited talk, NAS workshop on Identifying Transformative Research in the Geographical Sciences, Beckman Center, Irvine, CA, August 2014.

“Is Science Possible?” public lecture, WZB, Berlin, December 9, 2013.

“Making Science Useful, Making Useful Science,” keynote, “Between Two Worlds: Social and Spatial Sciences on the Way to a New Understanding of Knowledge Transfer,” Berlin, December 5, 2013.

“Going the Last Mile to Mitigate Short-Lived Climate Pollutants,” invited talk, workshop on SLCPs, Institute for Advanced Sustainability Studies, Potsdam, Germany, December 14, 2012.

“From Salomon’s House to Synthesis Centers.” Berlin Conference on Intellectual and Institutional Innovation in Science, September 2012; EASST/4S Annual Meeting, Copenhagen, October 2012.

“Ecology Transformed: Organizational Innovation and the Transcendence of Place.” Sociology of the Sciences Yearbook Conference, Lucerne, June 2012.

“Science for a Global Society: Synthesis in Research Collaboration,” AAAS Meetings, Vancouver, CA, February 17, 2012.

“Science Leadership and the Role of Scientific Societies,” invited talk at the annual meeting of the American Institute of Biological Societies, Washington, D.C., December 7, 2011.

“Toward Metrics of Interdisciplinary Research,” invited plenary talk, Facilitating Interdisciplinary Research and Education, University of Colorado, Boulder, March 2011.

“Better Science through Peer Review,” invited keynote, EU-US Workshop on peer review, Brussels, December 2010.

“Peer Review and the Process of Science,” Philosophy of Science Association biennial meetings, Montreal, November 2010.

Keynote address, Grinnell College Science Division retreat, September 12, 2008 (funded by a grant from HHMI).

“The Unchallengeable Orthodoxy of Peer Review,” Unchallengeable Orthodoxies Conference, Sandra Day O’Connor School of Law, ASU, May 2009.

“Environmental Research Charrette: An Experiment in Interdisciplinary Education and Collaboration,” with Diana Rhoten, American Association for the Advancement of Science, San Francisco, February, 2007. Revised versions presented at the University of Virginia, March 2007; Indiana University, September 2007; Rutgers University, April 2008; NCEAS, July 2009.

“Both Sides, Now: The Dynamics of Human and Social Dynamics,” invited presentation to meeting of principal investigators of NSF’s Human and Social Dynamics Program, September 2006.

“Encouraging Transformative Research,” Task Force on Transformative Research, National Science Board, Santa Fe, December 2005.

“Cultural Contradictions of Science,” Friday Science Lecture Series, Colgate University, Hamilton, NY, September, 2005.

“Peer Review and Transformative Research,” Task Force on Transformative Research, National Science Board, Arlington, VA, August 2005.

“Essential Tensions: Paradoxes of Identity, Risk, and Control in Research,” Annual Meetings of the American Sociological Association, San Francisco, August 2004.

“Emerging Patterns of Scientific Collaboration,” Annual Meetings of the American Association for the Advancement of Science, Seattle, February 2004.

“Peer Review in Science and Science Policy: Challenges for the 21st Century.” Keynote presentation, international workshop on peer review, sponsored by the Spanish Foundation for Science and Technology (FECYT), Madrid, December 2003.

“Interdisciplinarity, Transdisciplinarity, and the (Re)Organization of Research.” Invited presentation to an NSF-sponsored workshop on Research policy as an Agent of Change, Tucson, AZ, October 2003.

“Disciplinary and Interdisciplinary Collaboration,” Invited presentation to the NSF Advisory Committee on Environmental Research and Education, Santa Barbara, CA, October 2003.

“New Patterns of Scientific Collaboration,” International Society for the History, Philosophy, and Social Studies of Biology, Vienna, August 2003.

“Interdisciplinarity and the Social Organization of Science,” Invited presentation for a workshop on Interdisciplinarity, National Academy of Sciences, May 2003.

“Peer Review for the 21st Century: Applications for Education Research,” invited presentation for a workshop on Peer Review in Education Research, National Academy of Sciences, February 2003.

“Patterns of Scientific Collaboration.” Invited presentation, Symposium on Knowledge Environments for Science, National Science Foundation, November 25-6, 2002. Invited speaker.

Workshop on the science of collaboratories, University of Michigan, September 25-27, 2002. Invited participant.

“Big Biological Science,” invited presentation to the Cancer Policy Board, Institute of Medicine, National Academy of Sciences, Washington, D.C., July 2002.

“Patterns of Research Collaboration,” National Center for Environmental Analysis and Synthesis, April 2001.

“New Challenges of Peer Review” Ministerio da Ciencia e Technologia, Brasilia, Brazil, November 2000; presented a 3-hour seminar for Latin American science and technology officials.

“The Future of the Public Research University,” Tucson, Arizona, November 1999.

“The Conduct of Scientific Research,” Office of Research Integrity, National Institutes of Health, Bethesda, MD, November 1999. Invited speaker.

“Models of Research Group Behavior,” workshop on research collaboration, Sigtuna, Sweden, September 1999, sponsored by the European Union.

“Science, Technology and Society,” Hiroshima, Japan, February 1997, sponsored by the Japan Society for the Promotion of Science.

Approximately 50 additional talks and presentations at academic conferences, universities, and for professional associations.

# Professional Service

Editor, *Science, Technology & Human Values* (2012- )

Invited participant, Horizons for Social Sciences and Humanities, European Research Council, Vilnius, Lithuania, September 2013.

Panelist, European Research Council, Synergy Program, 2012-13; Consolidator Program, 2015 - 2019.

Session organizer, Science Forum for Rio + 20 Meetings, 2012; AAAS 2018, 2013, 2012, 2007, 2005, 2004; 4S 2017, 2012; ASA 2009, 2014.

Outside reviewer, University of Vienna, Science and Technology Studies Department, June 2013.

Delegate, International Council for Science (ICSU) General Assembly, Rome, September, 2011.

Member, site review team, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA; Center for Embedded Network Sensing (NSF STC), UCLA; Center for Research on Environmental Decisionmaking (NSF DMUU), Columbia University; Science and Technology Studies Department, UCSD; Science and Technology Studies Department, Cornell University.

Invited speaker, social research in the WATERS Network, NSF-funded workshop, St. Pete Beach, FL, January 2009.

Invited participant, NSF Workshop on the future of synthesis in the life sciences, Arlington, VA, December 2008.

Director, Division of Social and Economic Sciences, National Science Foundation, 2006-2008.

Invited speaker, the future of social and ecological research, International Society for Resource Management, Burlington, VT, May 2008.

Member, working group on transformative research, National Science Board, 2005-2006.

Associate Editor, Journal of Biomedical Discovery and Collaboration, 2005-

Member, U.S. National Committee of the International Union for the History and Philosophy of Science, organized under the auspices of the National Academy of Sciences, 2000-03.

Program officer, Science and Technology Studies Program, National Science Foundation, 1996-8.

Council member, Society for Social Studies of Science 1998-2001. Chair, Publications Committee, 1998-99; Member, Publications Committee, 2012- ; Chair, Fleck Prize Committee, 2000-01.

Council Member, Section on Science, Knowledge and Technology, American Sociological Association; Chair, awards committee, 1997-2000.

Panel member, Department of Energy, E-RIC competition ($121M RD&D center), 2010; National Science Foundation: Computer and Information Sciences and Engineering (2000; 2001; 2010; 2012); STS Program (1990-93; 1995); National Young Investigators Program, 1994; STS Fellowship Program (1989); National Institutes of Health: Ethical, Legal and Social Implications of the Human Genome Initiative Program (1999; 2000); Social Implications of Nanotechnology (2003); Societal Dimensions of Engineering, Science and Technology (2005).

Joined *amicus* brief on peer review for the U.S. Supreme Court case of Daubert v. Merrell Dow Pharmaceuticals (the “bendectin” case which resolved rules of evidence governing expert testimony).

Office of Technology Assessment, U.S. Congress (1987). Prepared a contractor’s report for OTA’s assessment, “Science in the Steady State: The Changing Research University.”

Reviewer for Science; American Sociological Review; Social Studies of Science; Sociological Quarterly; Science, Technology & Human Values; Science, Technology and Society; The Sociological Quarterly; Journal of Higher Education; Science and Engineering Ethics; Human Organization; Research Policy; Urban Anthropology; International Journal of Conflict Management; Knowledge; Research Evaluation; BioScience; National Science Foundation; National Institutes of Health; National Endowment for the Humanities; National Academy of Sciences; Department of Energy; Canadian Science Foundation; Wellcome Trust; McGraw-Hill; State University of New York Press; D. Reidel; Brooks-Cole; Johns Hopkins University Press; University of California Press; University of Toronto Press; Oxford University Press; Lawrence Erlbaum; Routledge; Blackwell; MIT Press; University of Wisconsin Press; Harvard University Press, Vanderbilt University; Swiss National Science Foundation; Eurpoean Research Council; Qatar National Research Fund; Danish Agency for Science and Higher Education.

**Selected Recent University Service**

Associate Director, School of Human Evolution and Social Change, 2011-14.

Director, fellowships program, School of Sustainability, 2012-13.

Chair, Search Committee (3 tenure-track positions), School of Sustainability, 2011-12.

Chair, Personnel Committee, School of Human Evolution and Social Change, 2009-11.

Faculty Honors Council, Barrett Honors College, ASU, 2001-04 (Chair, 2003-04).

# Honors and Awards

Fellow, American Association for the Advancement of Science, 2018

Society for Social Studies of Science Infrastructure Award (shared with all handbook editors), 2017.

Sigma Xi Distinguished Lecturer, 2015-17.

Guest Professor, Wissenschaftszentrum Berlin für Sozialforschung, December 2013.

Senior Fellow, Institute for Advanced Sustainability Studies, Potsdam, Germany, 2012.

Center Fellow, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA, 2004-05.

Zebulon Pearce Distinguished Teaching nomination, ASU, 1999; 2010, 2012.

Senior Fellow, Japan Society for the Promotion of Science, 1997.

Mellon Foundation Fellow, The Rockefeller University, Laboratory of Molecular Genetics and Informatics (Joshua Lederberg, director), 1992-93.

Scholarly Contribution Award, Organizational Behavior Division, Academy of Management, 1987, to M.L. Marks, P.H. Mirvis, E.J. Hackett, J. Grady.

NIMH Pre- and Post-doctoral Fellowships, 1976-79.

Undergraduate awards: NSF Graduate Fellowship, Honorable Mention, 1974; Connecticut State Scholar, 1969-73; Colgate University Scholarship, 1969-73; National Merit Scholarship Commendation, 1969.