

ROBERTA BALSTAD*

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EDUCATION:

B.A., History, University of Minnesota, 1964
Inter-University Consortium for Political Research, University of Michigan,
Summer 1968
M.A., History, University of Minnesota, 1970
Ph.D., History, University of Minnesota, 1973

PROFESSIONAL POSITIONS:

Consultant, International Council of Science (ICSU), 2011-2012
Editor-in-Chief, *Weather, Climate, and Society*, American Meteorological Society, 2008-2013
Co-Director, Center for Research on Environmental Decisions (CRED), Columbia University, 2006-2010
Director, Center for International Earth Science Information Network (CIESIN), and Senior Research
Scientist, Columbia University, 1998-2006; Senior Fellow, 2006-present
President and Chief Executive Officer, Consortium for International Earth Science Information Network (CIESIN),
1993-1998.
Professor of Natural Resources Management and Behavior (Adjunct), School of Environment and Natural
Resources, University of Michigan, 1993-1997.
Director, Division of Social and Economic Science, National Science Foundation, 1984-1993.
Executive Director, Consortium of Social Science Associations (COSSA), 1981-1984.
Staff Associate, Social Science Research Council, 1975-1982 (on leave, 1981-1982).
Research Associate, American Institute of Architects Research Corporation, 1974-1975.
Consultant in Quantitative Methodology, Department of History, University of Minnesota, 1969-1970.
Research Assistant, Minnesota Political Data Archives, 1968-1969.

RESEARCH APPOINTMENTS:

Guest Scholar, Woodrow Wilson International Center for Scholars, 1994.
Senior Associate Member (Fellow), St. Antony's College, Oxford University, 1991-1992.

AWARDS:

Meritorious Service Award, National Science Foundation, 1993.
Fellow, American Association for the Advancement of Science, 1997
Fellow, New York Academy of Science, 2002
National Associate, National Academies, 2005-present

TEACHING EXPERIENCE:

Department of Political Science, University of Michigan, 1995, 1997
Adjunct faculty, Congressional Studies Program, Catholic University, 1979-1981.
Instructor, Department of History, Hiram College, Fall 1972.
Lecturer, Department of History, Oberlin College, Spring 1971.
Instructor, Department of History, University of Minnesota, Summer 1970.
Instructor, U.S. Army Education Center, Fulda, Germany, 1964-1966.

* Formerly Roberta Balstad Miller

BOARDS and ADVISORY GROUPS:

Portfolio Review Task Force, Science Advisory Board, National Oceanic and Atmospheric Administration,
Co-Chair 2012-2013

Board of Directors, University Consortium for Atmospheric Research (UCAR), 2009-present
Secretary of the Board, 2011-2013
Chairman of the Board, 2013-Present

Board on Research Data and Information, National Research Council, Vice Chair, 2009-2011

US National Committee on Data for Science and Technology (CODATA), National Research Council,
Chair, 2003-2011

Chair, Symposium on Data Sharing Plans for GEOSS and the Benefits of Data Sharing for Science, National
Academy of Sciences, November 2009

Governing Board, National Center for Earthquake Engineering Simulation (NEES), 2010-2011

Steering Committee on the Socioeconomic Effects of Public Sector Information on Digital Networks, National
Research Council, Member, 2008-2009.

Steering Committee, TeraGrid Planning Process, University of Michigan and NSF,
Associate Chair, 2007-2008

Planning Committee on the Societal and Economic Impacts of Severe Space Weather Events, National
Research Council, 2007-2009

Board of Directors, Open Geospatial Consortium (OGC), 2003-2011
Member, Executive Committee, 2005-2009
Chair, Strategic Planning Committee, 2005-2006

US/China Roundtable on Scientific and Technical Data, National Research Council,
US Chair, 2007-2011

Social Science Review Working Group, NOAA Science Advisory Board, 2007-2009

Study on the Scientific Uses of the Radio Spectrum, National Academies of Sciences
Member 2007-2009

Strategic Committee on Information and Data (SCID), International Council of Science (ICSU)
Member 2007-2008

Committee on Scientific Planning and Review (CSPR), International Council of Science (ICSU)
Member, 2006-present

Data Archiving and Access Requirements Working Group (DAARWG), NOAA Science Advisory Board,
Member 2006-2012

Panel on Earth Science Applications and Societal Needs of the Earth Science and Applications from Space: A
Community Assessment and Strategy for the Future, National Academies of Sciences
Co-chair, 2005-2007

Open Geospatial Consortium Interoperability Institute
Board of Directors, 2005-2009

Cooperative Institute for Climate Applications and Research (CICAR), Lamont Doherty Earth Observatory, Columbia University
Executive Board, 2005-2006

Global Spatial Data Infrastructure (GSDI) Association
Treasurer, 2005-2006

Advisory Committee, Data Sharing for Demographic Research, NICHD, 2004-2009

IGOS-ICSU Working Group on Socioeconomic Data
Chair, 2004

ICSU Priority Area Assessment Panel for Scientific Data and Information
Chair, 2003-2005

Integrated Global Observing of Land (IGOL), IGOS Working Group, 2004-2007

Co-Chair, International Workshop on Strategies for Preservation of and Open Access to Scientific Data, Beijing, June 2004

Committee on Climate Data Records from Operational Satellites, National Academies of Science, 2003-2005

Coupled Human and Natural Systems Advisory Council, National Center for Atmospheric Research, 2003

Cooperative Institute for Climate Applications and Research (CICAR), Advisory Committee, 2003-2007

External Advisory Board, NOAA Cooperative Remote Sensing Science and Technology Center, City University of New York/City College, 2003-2007

Program Planning and Analysis Committee, NASA Applications Division, Code YO, 2001-2002

Committee on the Geographic Foundation for Agenda 21, National Research Council, 2001-2002

Advisory Committee, Center for Science in the Earth System, University of Washington, 2001-2002

Urban Biosphere Group, International Center for Biosphere and Society, UNESCO/Columbia University, Chair, 2001-2004

Panel on Strategies for Climate Monitoring, NOAA Science Advisory Board, 2000-2001

Strategic Planning Committee, NASA Applications Division, Code YO, 2000-2001

Science Advisory Board, Stellenbosch Institute for Advanced Study (STIAS), Stellenbosch University (South Africa), 2000-2003

Steering Committee on Space Applications and Commercialization, National Research Council, Chairman, 1999-2002
Reports published by the committee: *Transforming Remote Sensing Data into Information and Applications* (Washington: National Academies Press, 2001)
Toward Public-Private Partnerships in Remote Sensing (Washington: National Academies Press, 2002)
Using Remote Sensing in State and Local Government: Information for Management and Decision Making (Washington: National Academies Press, 2003)

Committee on Global Change Research, National Research Council, 1999-2002

Climate Research Committee, National Research Council, 1997-1999.

Panel on Climate Observing System Status, National Research Council, 1997-1998.

Space Studies Board, National Research Council, 1995-2000;
Member, Executive Committee, 1995-1998;
Member, Task Group on Research and Analysis Programs, 1996-1997

Board of Trustees, St. Antony's College Trust, St. Antony's College, University of Oxford (also called Executive Committee of Antonians in North American, or ECANA), 1994- 2007.
Secretary of the Trust, 1997-1999
Chairman, 1999-2007

Advisory Board, Earthscape, Columbia University Press, 1998-2003

Conference Committee, New York Academy of Science, 1998-2001

Board of Trustees, Consortium for International Earth Science Information Network (CIESIN),
1993-1998

U.S. National Committee for IIASA, 1995-present

Trustee, International Center for Remote Sensing and Environment, 1998-present

Advisory Trustee, Environmental Research Institute of Michigan (ERIM), 1995-1998.

Rhodes Scholars' Selection Committee for Michigan,
Chair, 1994, 1995, 1996, 1997, 1998.

Trustee, International Symposium on Remote Sensing and Environment, 1995-1998

Vice President, International Social Science Council, 1992-1994.

Vice-Chairman, Human Dimensions of Global Environmental Change Programme, International Social Science Council, 1992-1994;
Member, Advisory Committee, 1991-92;
Member, Steering Committee, 1995-1996.

Social Science Research Council Liaison Committee to the ISSC, 1993-1995.

Advisory Committee, Sub-Saharan Africa Program, American Association for Advancement of Science,
1994-1996.

Steering Committee, GIS and Global Change Research Program, National Center for Geographic Information and Analysis, 1994.

Committee on Science, Engineering and Public Policy, American Association for the Advancement of Science,
1988-1994;
Chairman, 1992-1994.

Chair, Section X, Societal Impacts of Science and Technology, American Association for the Advancement of Science, 1993-1994.

Board of Advisory Editors, *Evaluation Review: A Journal of Applied Social Research*.
1993 -2008.

Advisory Panel on Advanced Scientific Institutes/Advanced Research Workshops, NATO Scientific Affairs Division, 1988-1991;
Chairman, 1990-1991.

Advisory Board, Luxembourg Income Study, 1986-1991;

Chairman, 1987-1991;
Member, Executive Committee, 1987-1991.

National Committee, U. S. Man in the Biosphere Program, 1989-1991.
Chairman, Human Dominated Systems Directorate, 1989-1991.

Selection Panel, Scientific Freedom and Responsibility Award, American Association for the Advancement of Science, 1987-1991;
Chairman, 1990-1991.

Editorial Board, *Social Science Computer Review*. 1988-1994.

Editorial Board, *The Public Historian*. 1980-1986, 1988-1991.

Advisory Board, Social Science Agricultural Agenda Project, 1986-1989.

Advisory Committee, Consortium of Social Science Associations Research Guide, 1985-1986.

Executive Committee, Social Science History Association, 1984-1986.

Working Group on the Quality of Employment Survey, Social Science Research Council, 1985-1986.

Board of Directors, Consortium of Social Science Associations, 1982-1984.

Board of Directors, National Council on Public History, 1980-1984.

Advisory Council, *Computers and the Social Sciences*. 1984.

International Technology Council Program Committee, Advisory Board on the Built Environment, National Research Council, 1984.

Committee on Energy Conservation in Buildings and Community Systems, National Research Council, 1982-1983.

Standing Committee for Research Resource Development, Social Science History Association, 1981-1983.

Editorial Board, *Historical Methods*. 1979-1982.

Advisory Board, Institute for Urban and Regional Economic Analysis, U.S. Conference of Mayors, 1979-1981.

Washington Business Resource Group, National Coordinating Committee for the Promotion of History, 1977-1981.

Technical Advisory Group on Urban Economic Development, U.S. Conference of Mayors, 1976-1978.

Numerous *ad hoc* advisory panels such as: Ad hoc External Evaluation Committee, Montana State University, 2012; Co-Chair, Program Committee, 22nd International CODATA Conference, Stellenbosch, South Africa, 2010; Member, National Academy of Science Delegation to 29th ICSU General Assembly, October, 2008; NOAA Review Panel on Climate Information Products and Applications, July 2009; University of Maryland workshop on inserting adaptation and coping mechanisms into integrated assessment models, August 2007; NSF Workshop on Cyberinfrastructure and the Social Sciences, October, 2004, March 2005; NSF Symposium on Knowledge Environments for Science and Engineering: Past, Present, and Future, 25-26 November 2002; UNEP Land Cover Expert Group Meeting, October 2001; Chair of NSF Review Panel, NCAR's Economic and Social Impacts Group, September 2001; NRC Workshop on a Federated EOSDIS, 1998; Fulbright 50th Anniversary Distinguished Fellows Visiting Program Review Committee, 1995; IAS Review Panel, NASA, 1994; IWGDMGC, 1993; Strategic Planning Committee, Sub-Saharan Africa Program, AAAS, September, 1993; National Research Council, 1993, 1994; DG XII, European Community, 1992; Sigma Xi, 1991; the John D. and Catherine T. MacArthur Foundation, 1991; CIESIN, 1990; Science Policy Support Group, London, 1989; American Association for the Advancement of Science delegation to Germany, 1984; Advisory Committee, George Washington Public History Program, 1983; Urban Conservation Forum, National League of Cities, 1980; Risk Assessment Advisory Panel,

Office of Technology Assessment, 1979; Research Planning Panel on Science Education Indicators, National Science Foundation, 1978; and American Institute of Architects Research Corporation Advisory Committee to the National Bureau of Standards/Instituto de Pesquisas (Sao Paulo, Brazil) Collaborative Program in Building Research, 1977.

PUBLICATIONS, BOOKS:

City and Hinterland: A Case Study of Urban Growth and Regional Development (Westport, CT: Greenwood Press, 1979).

Science Indicators: Implications for Research and Policy, a special issue of *Scientometrics*, co-editor with Harriet Zuckerman (1980).

Røttene Og Greinene, with Erling Balstad (Namsos, Norge: Pedagogisk Psykologisk Forleg, 1988).

PUBLICATIONS, ARTICLES:

“The Data Challenge for Research and Policy on Weather, Climate, and Society,” *Weather, Climate, and Society*, Vol. 3, No. 1, January, 2011

“Climate, Society, and Caesar’s Wife,” *Weather, Climate, and Society*, Vol. 2, April, 2010.

“The Interdisciplinary Challenges of Climate Change Research,” in *World Social Science Report, 2010: Knowledge Divides*, Paris; UNESCO, 2010, pp. 210-212.

“The Science and Humanity of Weather, Climate, and Society,” *Weather, Climate, and Society*, Vol. 1, October 2009

“Adapting to an uncertain climate on the Great Plains: testing hypotheses on historical populations,” Roberta Balstad, Roly Russell, Vladimir Gil, and Sabine Marx, in *Adapting to Climate Change: Thresholds, Values, Governance* (Cambridge; Cambridge University Press, 2009), pp. 283-295. Paperback, 2010

“Climate and Society: What is the Human Dimension?” Roberta Balstad and Jean-Charles Hourcade, in *Ensemble face au changement climatique [Facing Climate Change Together]* (Paris; Odile Jacob, 2007 [French]; Cambridge University Press, 2008 [English])

“Conclusion: Setting the Agenda for Historical GIS,” Anne Knowles, Amy Hillier, and Roberta Balstad, in *Placing History: How Maps, Spatial Data, and GIS are Changing Historical Scholarship* (2007), ed. By Anne Knowles and Amy Hillier (Redlands, CA; ESRI, 2008)

“Changing Our Perspective,” Roberta Balstad, Anthony C. Janetos, and Molly K. Macauley, *Space News*, March 26, 2007.

“Climate and Human Health: Physics, Policy, and Possibilities, Broad, K., Bolson, J., Clement, A., Balstad, R., Marx, S., Peterson, N., Ramirez, I., in Walsh, P.J., S.L. Smith, L.E. Fleming, H. Solo-Gabriele, W.H. Gerwick (eds.), *Oceans and Human Health: Risks and Remedies from the Sea*, (2008), Elsevier Science Publishers, New York

“Satellite Data,” in *The Limits of Market Organization*, ed. Richard R. Nelson, 2005, Russell Sage Foundation: New York, pp. 294-317

“An Experiment in Institutional Transformation: The NSF Advance Program for Women at the Earth Institute at Columbia University,” (Robin Bell, Jennifer Laird, Stephanie Pfirman, John Mutter, Roberta Balstad, and Mark Cane) *Oceanography*, 2005, Vol. 18(1), pp. 25-34

- “Toward Global Interoperability,” *Directions Magazine* (www.directionsmag.com), 30 April 2004
- “Managing the Megacity for Global Sustainability: The New York Metropolitan Region as an Urban Biosphere Reserve,” (Alfsen-Norodom, C., Boehme, S.E., Clemants, S., Corry, M., Imbruce, V., Lane, B.D., Miller, R. Balstad, Padoch, C., Panero, M. Peters, C.M., Rosenzweig, C., Solecki, W., Walsh, D.), *Annals of the NY Academy of Science*, June, 2004, Vol. 1023, pp. 125-41
- “Cities from Space: Potential Applications of Remote Sensing in Urban Environmental Research and Policy,” with Christopher Small, in *Environmental Science & Policy*, 2003, 6:129-137
- “Righting the Balance: Gender Diversity in the Geosciences,” *EOS*, co-authors Robin E. Bell, Kim A. Kastens, Mark Cane, John C. Mutter, and Stephanie Pfirman, August 2003, 84(31).
- “Remote Sensing Applications in African Agriculture and Natural Resources: Highlighting and Managing the Stress of Increasing Population Pressure,” with Abigail Amisshah-Arthur, *Advanced Space Research*, 2002, 30(11):2411-2421
- “The Crisis of the Social Sciences in 1980” *Revue pour l’histoire du CNRS* (November 2002)
- “Why Monitor the Climate?” *Bulletin of the American Meteorology Society*, co-authors Richard Goody, James Anderson, Thomas Karl, Gerald North, Joanne Simpson, Graeme Stephens, and Warren Washington (June, 2002)
- “International Research, Programs and Databases,” in the *International Encyclopedia of the Social and Behavioral Sciences* (Oxford: Elsevier, 2002)
- “Bridging the Gaps between Remote Sensing Data and Applications,” with Pamela Whitney, *Imaging Notes*, May/June 2002, pp. 24-25
- “Information Resources for Disaster Recovery in the US: Local vs. Federal Government Roles,” Columbia/Wharton Roundtable, *Risk Management Strategies in an Uncertain World* (Palisades, NY: Columbia University, 2002)
- “Digital Cities I: Integrating Data and Information Resources,” with Christopher Small, *Towards Digital Earth—Proceedings of the International Symposium on Digital Earth* (Beijing: Science Press, 1999, pp. 217-222.
- “Digital Cities II: Monitoring the Urban Environment from Space,” with Christopher Small, *Towards Digital Earth—Proceedings of the International Symposium on Digital Earth* (Beijing: Science Press, 1999), pp. 671-677.
- “Building an International Environmental Information System,” *EARTHmatters*, Fall, 1999, pp. 41-43.
- ”The Challenge in Earth Observation, Ecosystem Monitoring, and Environmental Information,” *Metadiversity Proceedings*, (The National Federation of Abstracting & Information Services, 1999), pp. 69-74
- "Social Science and the Challenge of Global Environmental Change," reprinted in French and English in the Fiftieth Anniversary issue of *International Social Science Journal*, 157:447-454, September, 1998.
- "The Use of Remote Sensing and GIS in Understanding Human Interactions in the Environment," *Space Informatics for Mountain Resources Management* (Nagoya, Japan: United Nations Centre for Regional Development, 1997), pp. 147-153.
- "Successful Networking in a Related Field: The CIESIN Example," *Proceedings of the Ninetieth Annual Meeting of the American Society of International Law* (Washington:ASIL, 1997), pp. 16-20.
- "Meeting Social Science Data Needs," in Leszek A. Kosinski, ed., *Issues in Global Change Research: Problems, Data and Programmes* (Geneva:ISSC, 1996), pp. 17-22.

- "Information Technology for Public Policy," in Michael F. Goodchild, et al., *GIS and Environmental Modeling: Progress and Research Issues* (Fort Collins, Colorado: GIS World Books, 1996).
- "On-Line Access and Analysis of Data: Developing a Social Science Information Management Strategy," *Proceedings of the 1996 Annual Research Conference and Technology Interchange* (Washington: Bureau of the Census, 1996), pp. 1061-1068.
- "Issues in the Evaluation of Social Science Research Programs," in John H. Moore and Gilyen Zsuzsanna, eds., *Kutatási Eredmények Erfekelese/Evaluation of Project Achievement* (Budapest: OTKA, 1996), pp. 155-164
- "The Information Society: O Brave New World," *Social Science Computer Review*, 13(2):163-170, June, 1995.
- "Earth Science and Data Policy Issues," in *The State of Earth Science from Space: Past Progress, Future Prospects*, edited by Ghassem Asrar (American Institute of Physics Press, 1995).
- "The Role of Information in Public Policy," *Biodiversity: Broadening the Debate*, Vol. 3 (Canberra: Australian Nature Conservation Agency, 1994), pp. 12-20.
- "Science and Society in the Early Career of H.F. Verwoerd," *Journal of Southern African Studies* 19(4): 634-661, December 1994.
- "Interactions and Collaboration in Global Change across the Social and Natural Sciences," *AMBIO: A Journal of the Human Environment*, Vol. 23 (1):19-24, February, 1994.
- "Research on the Human Components of Global Change: Next Steps," with Harold K. Jacobson. *Global Environmental Change*, September, 1992.
- "It's Time to Abandon the Third World to Save It" with Harold K. Jacobson, *National Geographic Research & Exploration*, July, 1992.
- "The Changing Role of the State in Research Funding," *Africa 2001* (Pretoria, 1992), pp. 7-11.
- "Social Science and the Challenge of Global Environmental Change," *International Social Science Journal*, November, 1991, 130:609-618. (This article has also been published in French, Spanish, and Chinese translation. In addition, it was reprinted in the May, 1992, issue of *Footnotes*, a publication of the American Sociological Association).
- "Science and the New World Order," *Chemistry and Industry*, November 18, 1991.
- "The Future for a New Directorate," *PS: Political Science and Politics*, March 1991, XXIV (1): 9-11.
- "The Management of Science in the 1990's: An American Perspective," in *The Management of Science*, edited by Douglas Hague (Macmillan, 1990).
- "Human Dimensions of Global Environmental Change," in *Global Change and Our Common Future*, edited by Ruth S. DeFries and Thomas F. Malone (Washington, National Academy Press, 1989).
- "Global Change Research Challenges Social Sciences," *The AAAS Observer*, July 7, 1989.
- "The Political Economy of the Social Sciences," in *Managing Interdisciplinary Research*, edited by Robert Walker and Peter Stringer (York, Institute for Research in the Social Sciences, 1989).
- "Social Science Lobby in the United States," in *The Human Sciences: Their Contribution to Society and Future Research Needs*, edited by Baha Abu-Laban and Brendan Gail Rule (University of Alberta Press, Edmonton, 1988).

- "Social Science under Siege: The Political Response, 1980-1984," in *Social Science Research and Government: Comparative Essays on Britain and the United States*, edited by Martin Bulmer (Cambridge University Press, 1987).
- "Social Policy Experimentation: Some Comments and Caveats," *Evaluation Review* (August 1985).
- "Politics and the Social Sciences--Yesterday, Today and Tomorrow," in *Health Survey Research Methods. Proceedings of the Fourth Conference on Health Survey Methods*, U.S. Department of Health and Human Services, DHHS Publication No. (PHS) 84-3346 (1984).
- "Technological Change and Social Science Research," with F. Thomas Juster, *Society/Transaction* (May/June, 1984).
- "The Budget for Social Science Research," *Science* (May 11, 1984).
- "Research Support and Research Advance in the Social Sciences: Introduction," *Items* (September 1983).
- "The Role of Technological Change in Social Science Research," with F. Thomas Juster, *Items* (September 1983).
- Health and Human Behavior* (COSSA Occasional Papers, 1983), co-editor with Sol Levine.
- "The Social Sciences and the Politics of Science: The 1940's," *The American Sociologist* (November, 1982).
- "Federal Funding of Social Science: An Interview with Dr. Roberta Balstad Miller, Executive Director of the Consortium of Social Science Associations," *The American Sociologist*. (November, 1982).
- "Federal Funding for the Social Sciences: An Updated Report," *Items* (Spring, 1982).
- "Measurement Issues in R&D Productivity," in *Current Perspectives on R&D Productivity*, edited by Herbert I. Fushfeld and Richard N. Langlois (Pergamon Press, 1982).
- "Perspectives on the Second Outlook: The Social and Behavioral Sciences," *Technological Forecasting and Social Change* (November, 1981).
- "Social Science in the National Science Foundation's Five-Year Outlook on Science and Technology," *Items* (June, 1981).
- "Indicators of Science: Notes and Queries," in *Science Indicators: Implications for Research and Policy*, a special issue of *Scientometrics* (1980), with Harriet Zuckerman.
- "Congressional Budgeting for NSF," *Review of Public Data Use* (December, 1979).
- "The Changing Federal Role in the Cities: The New Deal," *Commentary*. Journal of the National Council on Urban Economic Development (July, 1979).
- "Transportation Innovation and Regional Development: The Case of the Erie Canal," in *Retrospective Technology Assessment, 1976*, edited by Joel Tarr (San Francisco Press, Inc., 1977).
- "The Historical Study of Social Mobility: A New Perspective," *Historical Methods Newsletter* (June, 1975).
- Policies and Economics of Urban Rebuilding. American Institute of Architects Research Corporation, 1975, co-author and editor.
- "Women and American History," *Women's Studies: An Inter-disciplinary Journal* (April, 1974).

SELECTED RECENT PRESENTATIONS:

“The Social and Behavioral Sciences and Climate Change Research,” The Social and Behavioral Sciences and Public Policy, A Colloquium Celebrating COSSA’s 30 Years of Advocacy, 2-3 November 2011

“An Early Crowdsourcing Experiment: Lessons Learned,” Public Symposium on Crowdsourcing, Board on Research Data and Information, National Research Council, 13 June 2011

“The Vision of Data-Intensive Science,” Expert Panel Discussion on Data Policies, National Science Board, Arlington, VA, 28 March 2011

“Overview of Scientific Data Policies,” The Case for International Sharing of Scientific Data: A Focus on Developing Countries, National Research Council, Washington, DC, 18-19 April 2011

Presider, Prospects for Climate Cooperation: A Cancun Summit Preview, Council on Foreign Relations, 22 November 2010

“Scientific Collaboration between China and the US: New Roles for Data Sharing,” Chinese-American Networking Symposium (CANS), 19 September 2010

“Decision Making under Uncertainty: Agricultural Settlement of the Great Plains,” ICSU Symposium, Paris, September 2009

“The Challenges of Climate Change and the Social Sciences,” Plenary Address, World Social Science Forum, Bergen, Norway, 12 May, 2009.

“Openness in Digital Science: Why is it important?” National Science Library, Chinese Academy of Sciences, Beijing, 25 March 2009

“Data Sharing: Benefits and Barriers,” 3rd China-U.S. Roundtable on Scientific Data Cooperation, Qingdao, China, 23 March 2009

“E-Social Science—For What?” Keynote Address, Third International Conference on E-Social Science, October 8, 2007, Ann Arbor, Michigan

“Applied Research and Development for Decision Support,” National Research Council Workshop on Future Priorities for the U.S. Climate Change Science Program, Washington, DC, October 16, 2007

“Future Technologies and Remote Sensing Applications,” University College London Workshop on Satellite Applications, Washington, DC, September 18, 2007

“Using Weather Variability to Assess Socioeconomic Impacts of Climate,” American Meteorological Society, San Antonio, TX, 18 January 2007

“Expectations for Better Data Activities from Society,” CODATA, Beijing, China, 25 October, 2006

“Women in Science and Engineering,” Maryland Space Business Roundtable, 26 September 2006

“Scientific Data and Information,” ICSU General Assembly, Suzhou, China, 20 October 2005

“ICSU Priority Area Assessment on Scientific Data and Information,” Strategies for Permanent Access to Scientific Information in Southern Africa, CSIR, Pretoria/Tswane, South Africa, 5 September 2005

“The Global Environment and Earth Observation,” Keynote address, GISPlanet, Estoril, Portugal, 1 June 2005

“Operating a Twenty-first Century Data Center,” International Workshop on Strategies for Preservation of and Open Access to Scientific Data, Beijing, 23 June 2004

“The Use of Geospatial Information Technologies in Urban Policy and Governance,” Leverhulme International Symposium, London School of Economics, London, 19-21 April, 2004

- “GEOSS: Integration with Social and Economic Forecasting,” 5th National Conference of the National Council for Science and the Environment (NCES), Washington, DC, 4 February 2005
- “Social Data and Society: Preventing Misuse of Social Data in the 21st Century,” Keynote Address, 19th International CODATA Conference, Berlin, 8 November 2004
- “Remote Sensing for Social Benefit,” NOAA EPP/MSI Education & Science Forum, City College of New York, 21 October 2004
- “Social Engineering: The Rise and Fall of a Metaphor,” Network on the History of the Social Sciences and Statistics, Oslo, Norway, 28 June 2003
- “Policy Challenges for Spatial Web Services,” Emerging Technology Summit II, Vienna, Virginia, 5 June 2003
- “Using Remote Sensing in State and Local Government,” CUNY/CCNY NOAA-CREST, 27 March 2003
- “Satellite Data Collection and Distribution,” Conference on the Complexities and Limits of Market Organization, Columbia University, 24 February 2003
- “Climate Quality Data Management Systems,” Climate Change Science Program Planning Workshop, Washington, 4 December 2002
- “Policy and Institutional Frameworks for the Use of Remote Sensing: A Review of Two NRC Reports,” Integrating Remote Sensing at the Global, Regional, and Local Scale, Denver Colorado, 14 November, 2001
- “Remote Sensing and the Management of Regional Urban Environments,” with Christopher Small, 29th International Symposium on Remote Sensing of Environment, Buenos Aires, 10 April 2002
- “Environmental Impacts of Population and Resource Consumption,” Town Hall Meeting, February 4, 2002, Albany, New York
- “Using Remote to Understand the Urban Environment,” with Christopher Small, New York Academy of Sciences, 19 April 2001
- “Remote Sensing Potential: From Global to Local Needs,” Northeast Regional Applications Workshop, NASA RACNE, October 26, 2000, Skaneateles Falls, NY
- “Remote Sensing Applications in African Agriculture and Natural Resources: Highlighting and Managing the Stress of Increasing Population Pressure,” presented by co-author Abigail Amissah-Arthur, 33rd Scientific Assembly of COSPAR, Warsaw, July 2000
- “Climate Change, Science, and Society,” Symposium on A Decade of Global Change Research: Accomplishments and Future Directions of Earth System Sciences, George Mason University, 15 May 2000
- “Information Technology and Sustainable Development,” International Conference on Sustainable Development for Island Societies, National Central University, Chungli, Taiwan, 20 April 2000
- “Cities from Space: Potential Applications of Remote Sensing in Urban Environmental and Policy Research,” with Christopher Small, International Symposium on Remote Sensing and Environment, Cape Town, South Africa, March 2000
- “The Use of Socioeconomic Data in Global Change Research,” Seventh Conference of Asian and Pacific University Presidents, Kumamoto, Japan, January 14, 1999.
- “The Challenge of Data Access and Dissemination,” Plenary presentation, Metadiversity Symposium, Natural Bridge, Virginia, November, 1998.

- "Information Technology and Global Change Research," GOIN Workshop, Plenary presentation by teleconference, Tsukuba, Japan, March 24, 1998.
- "Using Advanced Information Technologies to Improve Land and Water Management," World Bank's Annual Rural Week Conference, Chantilly, Virginia, March 27, 1998.
- "Information Resources and Public Policy," Plenary presentation, USGS Workshop on Economics and Social Science, Williamsburg, Virginia, February 25, 1998.
- "Integrating Social Science and Natural Science Data," Plenary presentation, Conference on Scientific and Technical Data Exchange and Integration, U.S. National Committee for CODATA, National Research Council, Washington, December 16, 1997.
- "Strategy for START Regional Data and Information Systems," Start Scientific Steering Committee, Washington, D.C., September 15, 1997.
- "Socioeconomic Effects of Climate Change," International Information Network Contributions to Global Change Research, Boulder, Colorado, June 23, 1997.
- "Sociology and Social Engineering in South Africa," paper presented at the Network for Research on the History of Social Sciences and Statistical Institutions, St. Pete Beach, Florida, 12 April 1997.
- "The Use of Remote Sensing and GIS in Understanding Human Interactions in the Environment," Second Space Informatics Seminar for Sustainable Development, Kathmandu, Nepal, 3 December 1996.
- "Advanced Information Technology and International Law," American Society of International Law, Washington, March 27, 1996.
- "H.F. Verwoerd as an Academic," African Studies Center, Michigan State University, March 21, 1996.
- "On-Line Access and Analysis of Data: Developing a Social Science Information Management Strategy," Annual Research Conference, Bureau of the Census, Washington, March 20, 1996.
- "A Virtual Archive for Social Science Data," ICSU World Data Centers Conference, Wageningen, Netherlands, October 3, 1995.
- "Issues in the Evaluation of Social Science Research Programs," Budapest University of Economic Sciences, Budapest, September 22, 1995.
- "Social Impacts of Global Environmental Change," presentations at the Earth Science Summer Institute and the Science Institute for Teachers, California Institute of Technology, July 18, 1995.
- "The Global Information Infrastructure and Scientific Research," Invited Address, Symposium on the Global Information Infrastructure, Pacific Science Congress, Beijing, June 6, 1995.
- "Information Systems in the Study of Global Environmental Change," International Geosphere Biosphere Programme (IGBP) Conference, "Global Environmental Change: Implications for Southern Africa," Pretoria, South Africa, April 24, 1995.
- "Technology Policy in the New Congress," Panel discussant, Graduate School Research Symposium, University of Michigan, March 1, 1995.
- "Information Technology and Global Change Research: The Social Science Role in the Earth Observing System," University of Iowa, February 21, 1995.
- "Assessing the Great Works of Science and Technology Policy Analysis," American Association for the Advancement of Science, Atlanta, February 17, 1995.

- "The Individual, the State, and the Future of South Africa," Shepherd's College, Shepherdstown, West Virginia, October 12, 1995.
- "Science, Sociology, and Social Engineering: South Africa in the 1930s," paper presented at the 20th Anniversary Conference, Journal of Southern African Studies, University of York, England, September 9, 1994.
- "Social Implications of Climate Change," Earth Science Summer Institute, California Institute of Technology, August 23, 1994.
- "The Information Society: O Brave New World," Keynote Address, Computers in the Social Sciences Conference, College Park, Maryland, June 1, 1994.
- "How Can We Store, Organize and Share Environmental and Sustainable Development Data?" International Cooperation on Monitoring Environmental Change and Sustainable Development Conference, Department of State, June, 1994.
- "Earth Science and Data Policy Issues," paper presented at the Symposium on the State of Earth Science from Space, George Washington University, May 12, 1994.
- "Socio-economic Data for Global Change Research," U.S. Global Change Research Program, April 18, 1994.
- "Data and Information for Global Change," U.S. Global Change Policy Symposium, Washington, DC, April 12, 1994.
- "Data Resources in International Relations," International Studies Association, Washington, DC, April 1, 1994.
- "Data Access for Environmental Policy and Research," Computing in Aerospace Conference, American Institute of Aeronautics and Astronautics, San Diego. October 20, 1993.
- "A CIESIN of Inquiry," ICPSR and the 21st Century, Official Representatives Meeting, Ann Arbor, October 15, 1993.
- "The Role of Information in Public Policy," Second International Conference on Integrating Geographic Information Systems and Environmental Modeling, Breckenridge, Colorado, September 26, 1993.
- "Social Science, Nationalism, and Philanthropy: The Carnegie Corporation in South Africa," paper presented at the University of Sussex, England, September 11, 1993.
- "Tools for Making Sense of Human Interactions in Global Change," Global Change Policy Symposium, Washington, DC, May 19, 1993.
- "Joining Sociology to Politics: Science and Politics in the Early Career of H.F. Verwoerd," South African Workshop, Yale University, April 24, 1993.
- "Public Policy and the Universities." Honors Convocation Address, Saginaw Valley State University, April 22, 1993.
- "Social Scientists and the Road to Apartheid," Plenary address, Southwestern Social Science Association, New Orleans, Louisiana, March 18, 1993.
- "Interactions and Collaborations in Global Change Across the Social and Natural Sciences" presented at Scientific Advisory Council - III, International Geosphere-Biosphere Program, Ensenada, Mexico, January 27, 1993.
- "Social Science, Philanthropy, and Politics: The Carnegie Corporation in South Africa," American Historical Association, Washington, DC, December 1992.

- "Meeting Social Science Data Needs," Second Scientific Symposium, Human Dimension of Global Environmental Change Programme, International Social Science Council, Paris, France, December 1, 1992.
- "H.F. Verwoerd: Science and Society," South African Politics and History Seminar, Oxford University, June 8, 1992.
- "H.F. Verwoerd: A Historiographical Problem," Seminar, Economic and Social Research Council, Swindon, U.K., June 2, 1992.
- "International Research on Human Interactions in Global Change," Environmental Change Unit Seminar, Oxford University, February 10, 1992.
- "Scientific Progress and International Cooperation," Ecole Nationale des Ponts et Chaussees, Paris, February 4, 1992.
- "The Social Sciences and Global Change Research," Global Environmental Change Research Workshop, Economic and Social Research Council, London, January 24, 1992.
- "The Development of the Social Sciences in South Africa," African Studies Research Seminar, St. Antony's College, Oxford University, November 19, 1991.
- "The Funding Crisis in Science: End of the Frontier or a New Frontier? Science Policy Lunch Club, London, October 9, 1991.
- "Contributions of Social Research to Governance," American Association for the Advancement of Science annual meeting, Washington, DC, February 19, 1991.
- "International Collaboration in Science: Building on the Past," with Harold K. Jacobson, Humankind in Global Change: Indicators and Prospects, seminar at the American Association for the Advancement of Science annual meeting, Washington, DC, February 19, 1991.
- "Global Change Research: Challenge to the Social Sciences," Keynote Address, Scientific Symposium, Human Dimensions of Global Environmental Change Programme, International Social Science Council, Palma, Majorca, November 26, 1990.
- "Social Science and Public Policy in South Africa," American Association for the Advancement of Science, New Orleans, Louisiana, February 20, 1990.
- "Human Dimensions of Global Environmental Change," Public Lecture, Dartmouth College, January 26, 1990.
- "An American View of the Management of Science," British Association, Sheffield, England, September 14, 1989.
- "Caveats and Strategies for Social Science Research on Global Change," Keynote address, Managing the Global Commons (conference), Oak Ridge National Laboratory, August 1, 1989.
- "Human Systems in Global Change," The Global Forum (sponsored by the National Academy of Science and the Smithsonian Institution), Washington, DC, May 2, 1989.
- "The Political Economy of Social Science," Conference on Interdisciplinary Research Management, York University, England, February 16, 1989.
- "Research on Environmental Change: A U.S. Perspective," European Science Foundation Workshop on Environment and Development, Oslo, September 15, 1988.
- "Research on Global Change: The Challenge for the Social Sciences," International Political Science Association, Washington, DC, September 1, 1988.

- "Social Science and Modern Government," The John Madge Memorial Lecture, London School of Economics, London, November 10, 1986.
- "Making the Case for Social Science Research," Social Research Association Seminar, City University of London, November 11, 1987.
- "Historical Origins of NSF Science Indicators," US-China Joint Workshop on Measurement of the Impact of Science and Technology on Development, Washington, DC, September 4, 1987.
- "Current Issues in Science and Technology Policy," Rensselaer Polytechnic Institute, Troy, New York, October 20, 1986.
- "Interdisciplinary Research: Opportunities, Problems, Resources," George Washington University Faculty Colloquium, Washington, DC, May 10, 1986.
- "The Historian and the Public World," Plenary Session, Society for History in the Federal Government, Washington, DC, April 10, 1986.
- "The Social Science Lobby in the United States," National Conference on Research Funding for the Humanities and Social Sciences, University of Alberta, Edmonton, Alberta, Canada, October 12, 1985.
- "Research On Women: Sources of Support," presentation at conference sponsored by the Women's Research and Education Institute and the Congressional Caucus for Women's Issues, Washington, DC, September 17, 1985.
- "An Institutional Structure for Multinational Data Collection," LIS Conference on Income and Wealth, Luxembourg, July 9, 1985.
- "Current Issues in Social Science Research," University of Missouri, Columbia, Missouri, March 26, 1985.
- "New Technologies and Social Science Research," Southwest Social Science Association, Houston, Texas, March 22, 1985.
- "The Role of the Social Sciences in Governance in Postwar States," presentation at the George Sarton Centennial meeting of the Society for Social Studies of Science, Ghent, Belgium, November 16, 1984.
- "Current Policies, Priorities, and Concerns in U.S. Social Science," presentation at NAVF's Utredningsinstitut (Norwegian Research Council), Oslo, Norway, November 9, 1984.
- "Representing the Social Sciences to the Congress," presentation to the Social Science Federation of Canada, Ottawa, May 17, 1984.
- "The Politics of Social Science in the U.S.," University of Stockholm, Stockholm, Sweden, March 12, 1984.
- "The Politics of Social Science in the U.S.," presentation at Centre National de la Recherche Scientifique (CNRS), Paris, France, March 5, 1984.
- "Managing Research in a Time of Scarcity," presentation at the meeting of university representatives, Inter-university Consortium for Political and Social Research (ICPSR), Institute for Social Research, University of Michigan, Ann Arbor, Michigan, November 12, 1983.
- "Impacts of Changes in Methods and Technology on Social Science Research," with F. Thomas Juster, American Association for the Advancement of Science, Detroit, Michigan, May 27, 1983.
- "Local History, Genealogy, and Academic History in the Study of New York Communities," Field Institute for Local Historians, New York State Education Department, Mumford, New York, May 11, 1983.
- "Federal Support for the Social Sciences in the Post War Period," Brookings Seminar, Williamsburg, Virginia, February 9, 1982.

- "Science Policy in the Reagan Administration," New York Academy of Sciences, New York City, January 6, 1982.
- "The Social Sciences and the Politics of Science: The 1940's," Society for Social Studies of Science, Atlanta, Georgia, November 7, 1981.
- "Energy and Design in History," Plenary Keynote Session, American Institute of Architects Convention, Minneapolis, Minnesota, May 19, 1981.
- "History in Crisis: The Political Situation," Plenary Keynote Session, Organization of American Historians, Detroit, Michigan, April 1, 1981.
- "Measurement Issues in Indicators of R&D Productivity," presentation at the Center for Science and Technology Policy, New York University, New York City, February 6, 1981.
- "Indicators of Productivity in Research and Development," presentation at Science and Technology Indicators Conference, Organization for Economic Cooperation and Development (OECD), Paris, France, September 15-19, 1980.
- "Recent Research in the Field of Social Indicators," presentation at the University of Mannheim, Federal Republic of Germany, September 12, 1980.
- "Science Indicators," presentation to AAAS Congressional Fellows, Washington, DC, June 16, 1980.
- "Over-time Data in Urban Policy Analysis," presentation at the Public History Program, University of California, Santa Barbara, March 12, 1979.
- "Ethnic Settlement Patterns in Nineteenth and Twentieth Century Cities," Presentation at the Institute of Politics, Kennedy School of Government, Harvard University, November 15, 1978.
- "Urban Indicators and Social Indicators," paper presented at the meetings of the Social Science History Association, Columbus, Ohio, November 4, 1978.
- "Social Indicators: Tools for Evaluation or for the Study of Social Change?" paper presented at the meetings of the American Educational Research Association, New York City, April 7, 1977.
- "The Study of the Family in Historical Perspective," paper presented at the meetings of the Society of American Archivists, Washington, DC, October 1, 1976.
- "Social Indicators and Urban Policy Analysis," paper presented at the meetings of the American Society for Public Administration, Washington, DC, April 20, 1976.
- "The Uses of the Past: Suggestions for a New Approach to Urban Policy Analysis," paper presented at the meetings of the American Association for the Advancement of Science, Boston, February 23, 1976.
- "Metropolitan Planning for the Year 2000," Symposium: Metro 2000, University of Minnesota, October 16, 1975.
- Presentations made to member and affiliated associations of the Consortium of Social Science Associations and presentations on the National Science Foundation and its programs or CIESIN and its activities were not listed above. It does not include testimony before Congress, the most recent of which was to testify on behalf of UCAR before the House Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies, on Friday, 11 March, 2011.*

RELATED PROFESSIONAL EXPERIENCE:

Co-Chair, Program Committee, International CODATA Conference, Beijing, China, October 2006

Member, Council of Directors, The Earth Institute, Columbia University, 2002-2006

Member, Data Archive Review Panel, appointed by the Economic and Social Research Council (UK), September 1998

Member, Human Sciences Research Council Review Panel, appointed by the Department of Arts, Culture, Science and Technology, Government of South Africa, November 1997

Participant, White House Conference on Africa, June 1994

Member, U.S. Delegation, Second World Climate Conference, Geneva, October 1990.

Member, U.S. Delegation, Intergovernmental Panel on Climate Change (IPCC), Working Group III, Geneva, 1990.

Radio Interview: *Smithsonian Week*, June, 1989.

Chairman, Human Interactions Task Group, Office of Science and Technology Policy (OSTP) Committee on Earth Sciences (CES) Working Group on Global Change, 1989-1990.

NSF Representative, Committee on Earth Sciences Working Group on Mitigation and Adaptation Research Strategies, 1990.

Panelist, two-hour telecast on World Hunger Day, October 17, 1990.

Radio interview: *Week-End*, Voice of America, January, 1980.

Executive Resources Board, National Science Foundation, 1985-1991.

Data Element Security Task Group, National Science Foundation, 1988.

Computer Resources Working Group, National Science Foundation, 1987.

Task Force on Disciplinary Research and Facilities, National Science Foundation, 1987.

Task Force on Professional Development, National Science Foundation, 1986-1987.

Chairman, Evaluating Committee for Cornell Institute for Social and Economic Research (CISER), November 15-17, 1983.

Speaker, panelist, and commentator, Urban Design Symposium, sponsored by Kalamazoo Area Council for the Humanities and American Institute of Architects, Western Michigan Chapter, Kalamazoo, Michigan, October 3-4, 1982.

Invited participant, Seminar on Productivity in Civilian R&D, New York University, January-June 1981.

Participant in PBS television series on the history of technology, *Connections* (aired September 30-December 2, 1979; September-December, 1980, and other times).

Organized and conducted monthly Washington seminar on output indicators of science, 1978-1980.

Invited participant, monthly faculty seminar on qualitative indicators of science, Massachusetts Institute of Technology and Harvard University, 1979-1980.

PROFESSIONAL ASSOCIATIONS:

Council on Foreign Relations

COMMUNITY SERVICE:

Board of Trustees, The Newport Schools, 1985-1991
Chairman, Development Committee, 1986-89
Tutor, DC Literacy Council, 2008-2010

LITERARY ACTIVITIES:

Public reading of my translations of the poetry of Jorge Luis Borges, The Writers Center, Bethesda, Maryland, 27 February 2009

Published translations of the poetry of N.P. van Wyck Louw in *Delos: A Journal of World Literature* (1998)

Published translations of the poetry of Jorge Luis Borges in the *Maryland Poetry Review* (1988 and 1989) and *Poet Lore* (1991).

Advisory Board, *Delos: A Journal of World Literature*, 1990-2006.

Award for Translation, Washington Chapter American Literary Translators Association, October, 1990.

Reviews of poetry in *Washington Review* (1987, 1989).

Public readings of my translations of the work of Borges at George Washington University, the Corcoran Poetry Series, the Writers Center, Bethesda, Maryland, and the American Translators Association, D.C. Chapter, 1988-1991.

Organized, wrote, and presented multimedia program on the poetry and art of the Spanish Civil War, Corcoran Poetry Series, Washington, D.C., May, 1989

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