

**RÉSUMÉ**  
**(short version)**

William Ewart Easterling, III  
Dean  
College of Earth and Mineral Sciences  
116 Deike Building  
University Park, PA 16802

email: [billeasterling@psu.edu](mailto:billeasterling@psu.edu)  
phone: (814) 865-6546  
fax: (814) 863-7708

**PERSONAL:**

Born October 2, 1953, Chapel Hill, North Carolina.  
Married, four daughters

**EDUCATION:**

Ph.D. Geography-Climatology, University of North Carolina at Chapel Hill, December 1984  
M.A. Geography-Industrial Location Economics, University of North Carolina at Chapel Hill, 1980  
B.A. Geography and History, University of North Carolina at Chapel Hill, 1976  
Diploma Christchurch School, Christchurch, Virginia, 1972

**POSITIONS:**

2007-date **Dean**, College of Earth and Mineral Sciences, The Pennsylvania State University.  
1999-date **Professor** of Geography, **Faculty Affiliate**, Earth and Environmental Systems Institute, and **Member** of the Graduate School, **Courtesy Professor** of Agronomy, The Pennsylvania State University.  
2001-2007 **Director**, Penn State Institutes of Energy and the Environment (PSIEE), The Pennsylvania State University.  
1997-1998 **Associate Professor** of Geography, **Faculty Affiliate**, Environment Institute, and **Member** of the Graduate School, The Pennsylvania State University.  
1996-1998 **Interim Director**. National Institute for Global Environmental Change (NIGEC)–U.S. Department of Energy (headquartered at the University of California at Davis).  
1993-1997 **Associate Professor** of Agricultural Meteorology, **Graduate Faculty Fellow**, University of Nebraska-Lincoln.  
1992-1997 **Director**, Great Plains Regional Center of the National Institute for Global Environmental Change, University of Nebraska-Lincoln. Funded by U. S. Department of Energy.

- 1991-1993 **Assistant Professor** of Agricultural Meteorology, University of Nebraska-Lincoln and **Adjunct Assistant Professor** of Geography, University of Illinois--Champaign-Urbana.
- 1987-1991 **Fellow**, Climate Resources Program, Resources for the Future (RFF), **Adjunct Assistant Professor** of Geography, University of Illinois--Champaign-Urbana and **Adjunct Assistant Professor** of Agricultural Meteorology, University of Nebraska-Lincoln.
- 1987 **Professional Scientist**, Climate and Meteorology Section, Illinois State Water Survey, Champaign, IL and **Adjunct Assistant Professor** of Geography, University of Illinois-Champaign-Urbana.
- 1984-1986 **Associate Professional Scientist**, Climate and Meteorology Section, Illinois State Water Survey, Champaign, IL and **Adjunct Assistant Professor** of Geography, University of Illinois-Champaign-Urbana.
- 1983-1984 **Mellon Foundation Fellow-in-Residence**, Board on Atmospheric Sciences and Climate, National Academy of Sciences/National Research Council, Washington, DC.

### HONORS, AWARDS, AND SPECIAL RECOGNITION:

- Smith Fund Competitive Travel Award**, for travel to the Regional Science Association Meetings in Washington, D. C. University of North Carolina at Chapel Hill, 1981.
- Andrew Mellon Foundation Resident Fellowship**, Board on Atmospheric Sciences and Climate, National Academy of Sciences--National Research Council, Washington, D.C., 1983-84.
- W. R. Boggess Award for the Most Outstanding Paper** published in *The Water Resources Bulletin* in 1989, American Water Resources Association. Received January 1991.
- Fellow**, Center for Great Plains Studies, University of Nebraska-Lincoln, 1993-present.
- Associate**, Center for Grassland Studies, University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources, 1994-1997.
- Graduate Faculty Fellow**, University of Nebraska-Lincoln, 1993-1997.
- Faculty Associate**, Global Environmental Assessment Project, Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University, Cambridge, MA, 1997-1999.
- Honorary Director**, National Institute for Global Environmental Change (by unanimous vote of the Institute's Board of Trustees at conclusion of term as Interim Director). 1997.
- Faculty Affiliate**, Energy Institute, College of Earth and Mineral Sciences, The Pennsylvania State University, 1999-present.
- Faculty Affiliate**, Department of Agronomy, College of Agricultural Sciences, The Pennsylvania State University, 2000-present.
- Wilson Award for Excellence in Research**, College of Earth and Mineral Sciences, The Pennsylvania State University, 2003.
- Coordinating Lead Author**, Intergovernmental Panel on Climate Change, Working Group II, Third Assessment Report (Chapter 5, Ecosystems and Their Services), 1999-2001. (Nominated by the White House Office of Science and Technology Policy)
- Coordinating Lead Author**, Intergovernmental Panel on Climate Change, Working Group II, Fourth Assessment Report (Chapter 5, Food, Fibre, Forestry), 2005-2007. (Nominated by the White House Office of Science and Technology Policy) The IPCC, its Chairpersons, and Lead Authors were co-awarded the 2007 Nobel Peace Prize with former Vice President Al Gore.
- Nominator**, John D. and Catherine T. MacArthur Foundation Fellows Program, 2009-present.
- Fellow**, American Association for the Advancement of Science, elected 2010.

## NAMED AND OTHER SIGNIFICANT LECTURES, CONGRESSIONAL AND WHITE HOUSE PRESENTATIONS

- Easterling, W. E. 1997. Climate Change and Hunger. Walter Orr Roberts Memorial Lecture, Aspen Global Change Institute, Aspen, CO.
- Easterling, W. E. 1997. How Climate and Climate Change Impact People and the Way They Live. **Invited presentation** to the Joint White House-National Oceanic and Atmospheric Administration Briefing to Broadcast Weathercasters, Washington D. C. (followed by panel discussion with President Bill Clinton and Vice President Al Gore in preparation for Kyoto Protocol meetings)
- Easterling, William E. 2000. Scales of Climate Variability and Agricultural Production: Can Ever the Twain They Meet? **Invited presentation** in the Brown Memorial Lecture Series on Scale in Geography in Commemoration of the 75th Anniversary of the Founding of the Department of Geography, University of Minnesota, Minneapolis.
- Easterling, W. 2003. The Impacts of Climate Change on U.S. Agriculture; What Can Farmers Do About It? **Invited presenter and panelist**. Briefing to the Agriculture Committee of the United States Senate, Organized by the Harvard School of Public Health. Washington, D. C.
- Easterling, W. E. 2006. Recent Climate Variability and Future Climate Change: What They Mean for the Nation's Farming. **Invited Presentation**. Senate Briefing sponsored by the AAAS Center for Science, Technology and Congress. 2006.
- Easterling, W. E. 2007. Food and Climate Change: Summary of the 2007 IPCC Report, **Invited Testimony** before the Committee on Science, U. S. House of Representatives.
- Easterling, W. E. 2007. Agricultural Adaptation to Climate Change: What We Know and What We Need to Know. **Invited Briefing** to the Committee on Energy and Natural Resources, U. S. Senate and briefing to the Committee on Science, U. S. House of Representatives.
- Easterling, W. 2008. Adaptation to Climate Change. **Keynote presentation** to Peruvian Society of Mining, Metallurgy, and Exploration. Lima.
- Easterling, W. E. 2009. **Invited Guest and Panelist** for a joint National Science Foundation Television Network—*Discover Magazine* live webcast and follow-up magazine article on climate change science. San Francisco Exploratorium..
- Easterling, W. E. 2009. Can the World's Farmers Feed Ten Billion People as the Climate Changes? **Keynote Presentation** to the FEBS 2009 Congress on Adaptation Potential in Plants, Gregor Mendel Institute of Molecular Plant Biology, Vienna.
- Easterling, W. E. 2011. The Future of the Planet's Food Security. **Keynote Presentation** to the Princess of Thailand on the occasion of the dedication of Thailand's new Agricultural Research and Development Building. Bangkok.

## **INTERNATIONAL-FEDERAL-STATE ADVISORY BOARDS AND COMMITTEES, AND RELATED ACTIVITIES:**

### *International Level*

- Member**, Internal Scientific Advisory Committee to the National Science Foundation's Polar Ice Core Office located at the University of Nebraska-Lincoln. 1996-1997.
- U.S. Delegate**, Joint U.S.-Japan Conference on Global Change and Climate Modeling. National Science Foundation, Honolulu, Hawaii. 1996-1998.
- Convening Lead Author**. Third Assessment Report, Chapter on Ecosystems and Their Services. Intergovernmental Panel on Climate Change, United Nations Environment Programme-World Meteorological Organization. 1998-2001.
- Member**, Scientific Advisory Panel, International Research Institute, Lamont-Doherty Earth Observatory, Columbia University, 2002-2004.
- Convening Lead Author**. Fourth Assessment Report, Chapter on Food, Fibre, Forestry, and Fisheries, Intergovernmental Panel on Climate Change, United Nations Environment Programme-World Meteorological Organization. 2004-2007.
- Member**, Advisory Committee, Montreux Energy Roundtable, 2007-present.

### *Federal Level*

#### **National Research Council**

- Review Team**, Review of the U. S. Global Change Research Program, National Research Council of the National Academy of Sciences, La Jolla, CA. 1995.
- Chair**, Panel on the Human Dimensions of Seasonal-to-Interannual Climate Variability, National Research Council of the National Academy of Sciences, 1997-1999.
- Member**, Committee on Public-Private Partnerships in the Weather Services, National Research Council of the National Academy of Sciences, 2002-2003.
- Member**, Committee on Geographical Sciences, National Research Council of the National Academy of Sciences, 2004-2007, 2011-date.
- Review Editor**, *Landscapes on the Edge: New Horizons for Research on Earth's Surface*, Committee on Challenges and Opportunities in Earth Surface Processes, Board on Earth Sciences and Resources, National Research Council of the National Academy of Sciences, 2009.
- Member**, Climate Change Education Roundtable, Board on Science Education, National Research Council, 2010-date.

**Also, made presentations before numerous National Research Council boards and committees.**

#### **Federal Agencies**

- Coordinator**, Regional Climate Impact Research Initiative, National Office of the National Institute for Global Environmental Change. U. S.

Department of Energy. 1997-1999.

**Member**, Climate and Global Change Working Group, National Oceanic and Atmospheric Administration–Office of Global Programs. 1998-2004.

**Member**, Organizing Committee. 1998. Community Meeting on Integrated Assessment. Sponsored by the National Science Foundation, Washington, D. C.

**Member**, User Working Group, Socioeconomic Data Acquisition and Archive Center (SEDAC). Consortium for International Earth Science Information Network (CIESIN), National Aeronautics and Space Administration, Columbia University–Lamont-Doherty Earth Observatory, Palisades, NY. 1998–2002.

**Member**, Carbon and Climate Working Group that authored *A U.S. Carbon Cycle Science Plan*. Sponsored by the National Oceanic and Atmospheric Administration, National Science Foundation, Department of Energy and National Aeronautics and Space Administration, published by the U. S. Global Change Research Program, Washington D.C. 1999.

**Member**, Scientific Advisory Panel, International Research Institute, National Oceanic and Atmospheric Administration, Lamont-Doherty Earth Observatory, Columbia University, 2002-2004.

**Chair**, External Advisory Board, NSF-Sponsored Center for Research on Environmental Decisions, Columbia University, 2004-present.

**Member ex officio**, External Advisory Board, NSF-Sponsored Decision Center for a Desert City, Arizona State University, 2005-present.

**Institutional Representative**, University Corporation for Atmospheric Research members group, National Science Foundation. 2007-present.

### **Professional Societies and Non-Government Organizations**

**Member**, Board of Directors. Renewable Natural Resources Foundation. Bethesda, MD. 1988-1991.

**Member**, Committee on Applied Climatology. American Meteorological Society. 1988-1991.

**Member**, Committee on Global Environmental Change, American Geophysical Union, 1999-2002.

**Penn State Representative**, Cooperative Ecosystems Studies Units Network, 2003-2007.

**Member**, Steering Committee, National Phenology Network, University of Wisconsin-Milwaukee and University of Arizona, 2005-present.

### ***State Level***

**Co-Chair**, Governor Edward Rendell Transition Committee on Conservation and Natural Resources, 2002-2003.

**Member**, Department of Environmental Protection Secretary's Hydrogen and Fuel Cell Consortium, 2003-2005.

**Member**, Carbon Management Advisory Group, PA Department of Conservation and Natural Resources, 2006-2007.

**Member**, Scientific Advisory Committee, Institute for Social Sciences and the Environment, National Center for Atmospheric Research, 2005-2008.

**SIGNIFICANT UNIVERSITY SERVICE:**

- **Held administrative posts as director of a Department of Energy-funded extramural grant program hosted by the University of Nebraska, director of the flagship interdisciplinary energy and environmental research institute at Penn State, and dean of the College of Earth and Mineral Sciences at Penn State.**
- **Chaired or served on significant academic committees including:**

**Departmental:**

- Promotion and Tenure
- Graduate Program Officer
- Faculty and Department Head Search
- Strategic Planning
- Speaker Series
- Graduate Admissions

**University and College:**

- Distinguished Professorships
- University Research Council (elected chair for one term)
- Penn State Research Foundation
- Council of Academic Deans
- Academic Leadership Council
- Dean and Institute Director Searches
- University Outreach
- Academic Senate Liaison
- Executive Committees for Interdisciplinary Research Institutes
- Senate Committee on Faculty Rights and Responsibilities

**Special University Task Forces**

- Strategic Planning
- Reinvestment in Energy Sciences and Engineering
- Rights and Responsibilities of Fixed-Term Faculty
- Presidential Commission on Health Care

**RESEARCH, CREATIVE ACCOMPLISHMENTS, AND SCHOLARSHIP:**

***Select Peer-Reviewed Publications Since 1999 (more than 80 peer-reviewed publications since year of doctorate)***

1. Stern, Paul and William E. Easterling (eds.). 1999. *Making Climate Forecasts Matter*. National Research Council/National Academy of Sciences, Washington, National Academy Press, 189 pp.
2. Schneider, S. H., William E. Easterling, and Linda O. Mearns. 2000. Adaptation: Sensitivity to Natural Variability, Agent Assumptions, and Dynamic Climate Changes. *Climatic Change*. 45 (1):203-221.

3. Easterling, W. E., L. O. Mearns, C. J. Hays, and D. Marx. 2001. Comparison of agricultural impacts of climate change calculated from high and low resolution climate change scenarios: part II. Accounting for adaptation and CO<sub>2</sub> direct effects, *Climatic Change*, 51:173-197.
4. Easterling, William E. and Kasper Kok. 2002. Emergent Properties of Scale in Global Environmental Modeling: Are There Any? *Integrated Assessment*, 2-3:233-246.
5. Easterling, W. E., N. Chhetri, and X. Niu. 2003. Improving the realism of modeling agronomic adaptation to climate change: simulating technological substitution, *Climatic Change*, 60:149-173.
6. Easterling W, Apps M. 2005. Assessing the consequences of climate change for food and forest resources: A view from the IPCC, *Climatic Change* 70 (1-2): 165-189.
7. Easterling, W.E., P.K. Aggarwal, P. Batima, K.M. Brander, L. Erda, S.M. Howden, A. Kirilenko, J. Morton, J.-F. Soussana, J. Schmidhuber and F.N. Tubiello 2007. Food, fibre and forest products. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 273-313.
8. William E. Easterling (Guest Ed.) 2007. ***Climate Change and Food Security Special Feature***: Climate change and the adequacy of food and timber in the 21st century, *Proceedings of the National Academy of Sciences*, 104:19679; published online before print December 6, 2007.

Papers in the collection:

- John F. Morton 2007. ***Climate Change and Food Security Special Feature***: The impact of climate change on smallholder and subsistence agriculture, *PNAS*, 104:19680-19685; published online before print December 6, 2007.
- Tubiello, F. N., Jean-François Soussana, and S. Mark Howden 2007. ***Climate Change and Food Security Special Feature***: Crop and pasture response to climate change, *PNAS* 104:19686-19690; published online before print December 6, 2007.
- Howden, S. Mark, Jean-François Soussana, Francesco N. Tubiello, Netra Chhetri, Michael Dunlop, and Holger Meinke 2007. ***Climate Change and Food Security Special Feature***: Adapting agriculture to climate change, *PNAS*, 104:19691-19696; published online before print December 6, 2007.
- Kirilenko, Andrei and Roger A. Sedjo 2007. ***Climate Change and Food Security Special Feature***: Climate change impacts on forestry, *PNAS*, 104:19697-19702; published online before print December 6, 2007.
- Schmidhuber, Josef and Francesco N. Tubiello 2007. ***Climate Change and Food Security Special Feature***: Global food security under climate change, *PNAS* 104:19703-19708; published online before print December 6, 2007.
- Brander, Keith M. 2007. ***Climate Change and Food Security Special Feature***: Global fish production and climate change, *PNAS*, 104:19709-19714; published online before print December 6, 2007.

9. Chhetri, N. and W.E. Easterling, 2008. Climate change and food security in dryland regions of the world, *Annals of Arid Zone*, 47: 1-12.
  10. Niu, X., W. E. Easterling, C. Hays, A. Jacobs, and L. Mearns 2008. Reliability and input-data induced uncertainty of the EPIC model to estimate climate change impact on sorghum yields in the US Great Plains, *Agriculture, Ecosystems, and the Environment*, 129(1-3): 268-276.
  11. Podesta, G., F. Bert, R. Rajagopalan, S. Appipattanavis, C. Laciana, E. Weber, W. Easterling, R. Katz, D. Letson, and A. Menendez. 2009. Decadal climate variability in the Argentine Pampas: regional impacts of plausible climate scenarios on agricultural systems, *Climate Research*, 40(2-3):199-210.
  12. Chhetri, N., W. Easterling, A. Terando, and L. Mearns. 2010. Modeling path dependence in agricultural adaptation to climate variability and change, *Annals of the Association of American Geographers*, 100(4): 894-907.
  13. Baum, S. and W. Easterling. 2010. Space-time discounting in climate change adaptation. *Mitigation and Adaptation Strategies for Global Change*, 15(6): 591-609.
- **Principal Investigator or Co-Principal Investigator on \$18,069,809 in funded research since doctorate (1984)—funding sources: National Science Foundation, National Academy of Sciences, National Aeronautics and Space Administration, U. S. Department of Energy, U. S. Environmental Protection Agency, National Oceanic and Atmospheric Administration, University Corporation for Atmospheric Research, U. S. Agency for International Development, U. S. Department of Agriculture, Illinois Department Energy and Natural Resources.**
  - **Oversaw awarding of more than \$8 million in competitive extramural grants as director of the Great Plains Regional Center of the National Institute for Global Environmental Change.**
  - **Delivered more than 40 invited international paper presentations, lectures, workshop facilitation, and speeches and 100 nationally.**

#### **Journal Manuscript Reviewer:**

*Agricultural and Forest Meteorology*  
*American Journal of Agricultural Economics*  
*Bioscience*  
*Bulletin of the American Meteorological Society*  
*Canadian Geographer*  
*Climate Research*  
*Climatic Change*  
*Consequences*  
*Ecological Modeling*  
*Economic Geography*  
*Global Environmental Change*  
*Great Plains Research*  
*Journal of Applied Geography*  
*Journal of Climate*  
*Journal of Climate and Applied Meteorology*

*Mitigation and Adaptation Strategies for Global Change*  
*Nature*  
*Natural Resources Journal*  
*Proceedings of the National Academy of Sciences*  
*Professional Geographer*  
*Science*  
*South African Journal of Science*  
*Water International*

***Proposal, Program or Report Reviewer for:***

Canadian Tri-Councils Secretariat  
National Aeronautics and Space Administration  
National Institute for Global Environmental Change  
National Oceanic and Atmospheric Administration  
National Research Council  
National Science Foundation  
U.S. Department of Agriculture  
U.S. Department of Energy  
U.S. Environmental Protection Agency

**Membership in professional societies**

Association of American Geographers  
American Association for the Advancement of Science  
American Geophysical Union  
American Meteorological Society  
Center for Great Plains Studies  
Society for Mining Engineers  
Society for Petroleum Engineers

**INSTRUCTIONAL AND RELATED TEACHING ACTIVITIES**

***Courses Taught***

Agricultural Meteorology 907: Agricultural Climatology (at Nebraska)  
Geography 30: Human-Environment Relations  
Geography 406: Human Use of the Environment  
Geography 597A: Spatial Dimensions of Industrial Ecology  
Geography 597A: Issues of Scale in Environmental Geography  
Geography 408w: Human Dimension of Global Climate Change

In addition to structured classes, Dr. Easterling supervised students in the following courses:

Geography 496:Independent Studies. Dr. Easterling averages two undergraduate independent studies students per year since 1997, including honors theses.

Geography 596:Independent Studies (averaging two graduate courses per year since 1997), also Geography 600 Thesis and 601 Dissertation.

- **Supervision of graduate theses: Supervised 7 MS students to completion and 7 PhD students to completion. Served on 13 MS committees and 15 PhD committees.**

**REFERENCES AVAILABLE UPON REQUEST**