

## CURRICULUM VITAE

### 1. Personal Information

Erik Lichtenberg  
Professor, Department of Agricultural and Resource Economics

#### Education:

<u>Institution</u>	<u>Degree</u>	<u>Years</u>	<u>Field</u>
University of Chicago Chicago, Illinois	B.A.	1969- 1973	Linguistics (General Honors)
University of California Berkeley, California	Ph.D	1978- 1985	Agricultural and Resource Economics

Dissertation: "The Role of Land Quality in Agricultural Diversification"  
(Richard E. Just, Chairman)

#### Professional Experience:

1998-present	Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, Maryland
1992-1998	Associate Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, Maryland.
1993-1994	Senior Economist for Agriculture, Natural Resources, and International Trade, Council of Economic Advisers, Executive Office of the President, Washington, DC
1988-1992	Assistant Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, Maryland.
1987	Fellow, Pew Health Policy Program, Institute for Health Policy Studies, University of California, San Francisco, California.
1983-1987	Director of Environmental Economics, Western Consortium for the Health Professions, San Francisco, California.
1982-1986	Visiting Lecturer and Teaching Associate, Department of Agricultural and Resource Economics, University of California, Berkeley, California.

## 2. Research, Scholarly, and Creative Activities

### a. Books

### iii. Chapters in Books

Lichtenberg, Erik, "Economics of Pesticide Use and Regulation", in Jason Shogren (ed.), Encyclopedia of Energy, Natural Resource and Environmental Economics. Elsevier, forthcoming.

Lichtenberg, Erik, "Assessing Farmland Protection Policy in China", in Y. Song and C. Ding (eds.), Urbanization in China: Critical Issues in an Era of Rapid Growth. Cambridge, Lincoln Institute of Land Policy, 2008.

Lichtenberg, Erik, "Regulation of Technology in the Context of Risk Generation", in R.E. Just, J.M. Alston, and D. Zilberman. Regulating Agricultural Biotechnology: Economics and Policy. New York: Springer, 2006.

Lichtenberg, Erik, "Land Quality, Irrigation Development and Cropping Patterns in the Northern High Plains", in Ian Hardie and Peter Parks (ed.), The Economics of Land Use. London: Ashgate, 2003. (Reprinted from American Journal of Agricultural Economics 71, 187-194 (February 1989)).

Lichtenberg, Erik, "Impact of Food Safety on World Trade Issues", in Ronald Schmidt and Gary Rodrick (ed.) Food Safety Handbook. New York: McGraw-Hill, 2002.

Roberts, Tanya, Jean Buzby, and Erik Lichtenberg, "Economic Consequences of Foodborne Hazards", in Ronald Schmidt and Gary Rodrick (ed.) Food Safety Handbook. New York: McGraw-Hill, 2002.

Lichtenberg, Erik, "Agriculture and the Environment", in Bruce L. Gardner and Gordon C. Rausser (ed.), Handbook of Agricultural Economics. Amsterdam: Elsevier, forthcoming, 2002.

Lichtenberg, Erik, David Zilberman and Kenneth T. Bogen, "Regulating Environmental Health Risks Under Uncertainty: Groundwater Contamination in California", in James S. Shortle and Ronald C. Griffin (ed.), Irrigated Agriculture and the Environment, Northampton, MA: Edward Elgar, 2001 (Reprinted from Journal of Environmental Economics and Management 17, 22-34 (July 1989)).

Lichtenberg, Erik, "Costs of Regulating Genetically Modified Pest-Protected Plants", in National Research Council, Genetically Modified Pest-Protected Plants: Science and Regulation. Washington: National Academy Press, 2000.

Lichtenberg, Erik, "Sustainability and Economics", in Gerard E. D'Souza and Tesfa G.

Gebremedhin (ed.), Sustainability in Agricultural and Rural Development. London: Ashgate, 1998.

Lichtenberg, Erik, and Lars J. Olson, "Noncooperative and Cooperative Management of an Accumulative Water Pollutant", in Richard E. Just and Sinaia Netanyahu (ed.), Conflict and Cooperation in Transboundary Water Resources. Boston: Kluwer Academic Publishing, 1998.

Horowitz, John K. and Erik Lichtenberg, "Crop Insurance and Agricultural Chemical Use", in Darrell L. Hueth and William H. Furtan (ed.), Economics of Agricultural Crop Insurance: Theory and Evidence. Boston: Kluwer Academic Publishing, 1994.

Lichtenberg, Erik, Ivar E. Strand, Jr. and Billy V. Lessley, "Subsidizing Agricultural Nonpoint-Source Pollution Control: Targeting Cost Sharing and Technical Assistance", in Clifford Russell and Jason Shogren (ed.), Theory, Modeling and Experience in the Management of Nonpoint-Source Pollution. Norwell, MA: Kluwer Academic Publishing, 1993.

Lichtenberg, Erik, "Conservatism in Risk Assessment and Food Safety Policy", in Julie A. Caswell (ed.), Economics of Food Safety. New York: Elsevier, 1991.

Lichtenberg, Erik, "Determination of Regional Environmental Policy Under Uncertainty: Theory and Case Studies", in Ariel Dinar and David Zilberman (ed.), Issues in the Economics and Management of Agricultural Drainage Water. Norwell, MA: Kluwer Academic Publishing, 1991 .

Just, Richard E., Erik Lichtenberg and David Zilberman, "Joint Management of Buffer Stocks for Water and Commodities", in Richard E. Just and Nancy Bockstael (ed.), Commodity and Resource Policies in Agricultural Systems. New York: Springer-Verlag, 1991.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Effects of the Feed Grain and Wheat Programs on Irrigation and Groundwater Depletion in Nebraska", in Richard E. Just and Nancy Bockstael (ed.), Commodity and Resource Policies in Agricultural Systems. New York: Springer-Verlag, 1991.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Effects of Commodity Programs on Health: The Case of Tobacco", in Richard E. Just and Nancy Bockstael (ed.), Commodity and Resource Policies in Agricultural Systems. New York: Springer-Verlag, 1991.

Lichtenberg, Erik and David Zilberman, "Problems of Pesticide Regulation: Health and Environment versus Food and Fiber" in T. Phipps, P. Crosson and K. Olsen (ed.), Agriculture and the Environment. Washington, D.C.: Resources for the Future, 1986.

Rausser, Gordon C., Erik Lichtenberg and Ralph Lattimore, "New Developments in Theory and Empirical Applications of Endogenous Governmental Behavior." In Gordon C. Rausser, (ed.), New Directions in Econometric Modeling and Forecasting in U.S. Agriculture. New York: Elsevier North-Holland, 1983.

*b. Articles in Refereed Journals*

Hanson, J.C, D.M. Johnson, E. Lichtenberg and K. Minegishi, "Competitiveness of Management-Intensive Grazing Dairies in the Mid-Atlantic from 1995 to 2009", Journal of Dairy Science, forthcoming.

Lichtenberg, Erik, "Open Space and Urban Sprawl: The Case of the Maryland Forest Conservation Act", Agricultural and Resource Economics Review 40(3), 393-404 (December 2011). Outstanding Article of 2011, Northeast Agricultural and Resource Economics Association.

Ding, Chengri and Erik Lichtenberg, "Land and Urban Economic Growth in China", Journal of Regional Science 51(2), 299-317 (May 2011).

Lichtenberg, Erik and Ricardo Smith-Ramirez, "Slippage in Conservation Cost Sharing", American Journal of Agricultural Economics 93(1), 113-129 (January 2011).

Lichtenberg, Erik, "Economics of Health Risk Assessment", Annual Review of Resource Economics 2, 53-75 (2010).

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Agri-Environmental Program Compliance in a Heterogeneous Landscape", Environmental and Resource Economics, 47(1), 1-22 (September 2010).

Lichtenberg, Erik, James Shortle, James Wilen, and David Zilberman, "Natural Resource Economics and Conservation: Contributions of Agricultural Economics and Agricultural Economists", American Journal of Agricultural Economics 92(2), 469-486 (January 2010).

Lichtenberg, Erik and Chengri Ding, "Local Officials as Land Developers: Urban Spatial Expansion in China", Journal of Urban Economics 66(1), 57-64 (July 2009).

Lawley, Chad, Erik Lichtenberg, and Doug Parker, "Biases in Nutrient Management Planning", Land Economics 85(1), 186-200 (February 2009).

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Point/Nonpoint Effluent Trading with Spatial Heterogeneity", American Journal of Agricultural Economics 90(4), 1044-1058 (November 2008).

Klemick, Heather and Erik Lichtenberg, "Pesticide Use and Fish Harvests in Vietnamese Rice Agroecosystems", American Journal of Agricultural Economics 90(1), 1-14

(February 2008).

Alberini, Anna, Erik Lichtenberg, Dominic Mancini, and Gregmar I. Galinato, "Was It Something I Ate? Implementation of the FDA Seafood HACCP Program", American Journal of Agricultural Economics 90(1), 28-41 (February 2008).

Lichtenberg, Erik and Chengri Ding, "Assessing Farmland Protection Policy in China", Land Use Policy 25(1), 59-68 (January 2008).

Lichtenberg, Erik and Ian Hardie, "Open Space, Forest Conservation, and Urban Sprawl in Maryland Suburban Subdivisions", American Journal of Agricultural Economics 89(5), (December 2007).

Hardie, Ian, Erik Lichtenberg, and Cynthia J. Nickerson, "Regulation, Open Space, and the Value of Land Undergoing Residential Subdivision", Land Economics 83(4), 458-474 (November 2007).

Lichtenberg, Erik, Constant Tra, and Ian Hardie, "Land Use Regulation and the Provision of Open Space in Suburban Residential Subdivisions", Journal of Environmental Economics and Management 54, 199-213 (September 2007).

Lichtenberg, Erik, "Tenants, Landlords, and Soil Conservation", American Journal of Agricultural Economics 89(2), 294-307 (May 2007).

Lichtenberg, Erik, "A Note on Soil Depth, Failing Markets, and Agricultural Pricing": Comment", Journal of Development Economics, 81, 236-243 (2006).

Lichtenberg, Erik and Lori Lynch, "Exotic Pests and Trade: When Is Pest-Free Status Certification Worthwhile?", Agricultural and Resource Economics Review, 35(1), 52-62 (April 2006).

Lichtenberg, Erik and Ayesha Velderman, "Does It Matter Who Scouts?", Journal of Agricultural and Resource Economics 30(2), (August 2005).

Aggarwal, Rimjhim and Erik Lichtenberg, "Pigouvian Taxation under Double Moral Hazard", Journal of Environmental Economics and Management 49, 301-310 (2005).

Lichtenberg, Erik, "Cost-Responsiveness of Conservation Practice Adoption: A Revealed Preference Approach", Journal of Agricultural and Resource Economics 29(3), 420-435 (December 2004).

Lichtenberg, Erik, "Hard Truths about Agriculture and the Environment", Agricultural and Resource Economics Review 33(1), 24-33 (April 2004).

Lichtenberg, Erik, "Are Green Payments Good for the Environment?", Agricultural and Resource Economics Review 33(1), 138-147 (April 2004).

- Lichtenberg, Erik and Tony Penn, "Prevention versus Treatment Under Precautionary Regulation: A Case Study of Groundwater Contamination Under Uncertainty", American Journal of Agricultural Economics 85(1), 44-58 (February 2003).
- Lichtenberg, Erik and David Zilberman, "Storage Technology and the Environment", Journal of Agricultural and Resource Economics 27(1), 146-164 (June 2002).
- Lichtenberg, Erik, "Harmonizing Agricultural and Environmental Policies", KREI Journal of Rural Development 24, 321-343 (Winter 2001).
- Bastos Filho, Guilherme S. and Erik Lichtenberg, "Priorities in Cost Sharing for Soil and Water Conservation: A Revealed Preference Study", Land Economics 77(4), 533-547 (November 2001).
- Lichtenberg, Erik, "Harmonizing Agricultural and Environmental Policies" Taiwanese Agricultural Economic Review 5, 133-163 (June 2000).
- Lichtenberg, Erik and Rae Zimmerman, "Information and Farmers' Attitudes About Pesticides, Water Quality, and Related Environmental Effects", Agriculture, Ecosystems, and Environment 73, 227-236 (1999).
- Lichtenberg, Erik and Rae Zimmerman, "Adverse Health Effects, Environmental Attitudes, and Pesticide Usage Behavior of Farm Operators" Risk Analysis 19, 189-211 (April 1999).
- Lichtenberg, Erik and Rae Zimmerman, "Farmers' Willingness to Pay for Groundwater Protection", Water Resources Research 35, 833-841 (March 1999).
- Chambers, Robert G., Rolf Fare, Edward Jaenicke, and Erik Lichtenberg, "Using Dominance in Forming Bounds on DEA Models: The Case of Experimental Agricultural Data", Journal of Econometrics 85, 189-203 (July 1998).
- Lichtenberg, Erik, Douglas D. Parker, David Sunding, and David Zilberman, "Economics and Pesticide Regulation", Choices, Fourth Quarter, 1997, 26-29.
- Lichtenberg, Erik, "The Economics of Cosmetic Pesticide Use", American Journal of Agricultural Economics 79, 39-46 (February 1997).
- Lichtenberg, Erik and Lisa K. Shapiro, "Agriculture and Nitrate Concentrations in Maryland Community Water System Wells", Journal of Environmental Quality 26, 145-153 (January-February 1997).

- Hanson, James C., Erik Lichtenberg, and Steven E. Peters, "Organic versus Conventional Grain Production in the Mid-Atlantic: An Economic and Farming System Overview", American Journal of Alternative Agriculture 12, 2-9 (January 1997).
- Chambers, Robert G. and Erik Lichtenberg, "A Nonparametric Approach to the von Liebig-Paris Technology", American Journal of Agricultural Economics 78, 373-386 (May, 1996).
- Just, Richard, Erik Lichtenberg and David Zilberman, "Partial versus General Storage Policy: Commodities and Resources", Natural Resources Modeling 8, 273-292 (1995).
- Shah, Farhed, David Zilberman and Erik Lichtenberg, "Optimal Combination of Pollution Prevention and Abatement Policies: The Case of Agricultural Drainage", Environmental and Resource Economics 5, 29-49 (1995).
- Lichtenberg, Erik, James C. Hanson, Morris Decker and Andrew Clark, "The Profitability of Legume Cover Crops in the Mid-Atlantic Region", Journal of Soil and Water Conservation 49, 582-585 (November/December, 1994).
- Lichtenberg, Erik "Sharing the Challenge? An Economist's View", Water Resources Update 97, 39-42 (Autumn 1994).
- Chambers, Robert G. and Erik Lichtenberg, "Simple Econometrics of Pesticide Productivity", American Journal of Agricultural Economics 76, 407-418 (August, 1994).
- Horowitz, John K. and Erik Lichtenberg, "Risk-Reducing and Risk-Increasing Effects of Pesticides", Journal of Agricultural Economics 45, 82-89 (January 1994).
- Horowitz, John K. and Erik Lichtenberg, "Insurance, Moral Hazard and Chemical Use in Agriculture", American Journal of Agricultural Economics 75, 926-935 (November 1993).
- Lichtenberg, Erik, Robert C. Spear and David Zilberman, "The Economics of Re-Entry Regulation of Pesticides", American Journal of Agricultural Economics 75, 946-958 (November 1993).
- Hanson, James C., Erik Lichtenberg, Morris Decker and Andrew Clark, "The Profitability of No-Tillage Corn Following a Hairy Vetch Cover Crop in the Mid-Atlantic Region", Journal of Production Agriculture 6, 333-437 (July-September 1993).
- Phibbs, Ciaran S., David H. Mark, Harold S. Luft, Deborah J. Peltzman-Rennie, Deborah W. Garnick, Erik Lichtenberg and Stephen J. McPhee, "Choice of Hospital for Delivery: A Comparison of High-Risk and Low-Risk Women", HSR: Health Services Research 28. 201-222 (June 1993).
- Lichtenberg, Erik, "Alternative Approaches to Pesticide Policy", Northeast Journal of

Agricultural and Resource Economics 21, 83-91 (October 1992).

Lichtenberg, Erik and Billy V. Lessley, "Water Quality, Cost-Sharing and Technical Assistance: Perceptions of Maryland Farmers", Journal of Soil and Water Conservation 47, 260-264 (May-June 1992).

Babcock, Bruce A., Erik Lichtenberg and David Zilberman, "The Impacts of Damage Control on the Quantity and Quality of Output: Estimating Pest Control Effectiveness", American Journal of Agricultural Economics 74,163-172 (February 1992).

Luft, Harold S., Deborah W. Garnick, Ciaran S. Phibbs, Deborah J. Peltzman, Erik Lichtenberg and Stephen J. McPhee, "A Model to Simulate the Effects of Hospital Quality and Charges on Choice of Hospital", Journal of Health Care Marketing 11, 2-11 (September 1991).

Zilberman, David, Andrew Schmitz, Gary Casterline, Erik Lichtenberg and Jerome B. Siebert, "The Economics of Pesticide Use and Regulation", Science 253, 518-522 (2 August 1991).

Lichtenberg, Erik, "Risk Assessment, Economics and Chemicals in Food", Journal of Agribusiness 9, 25-38 (Spring 1991).

Caswell, Margriet F., Erik Lichtenberg and David Zilberman, "The Effects of Pricing Policies on Water Conservation and Drainage", American Journal of Agricultural Economics 72, 883-890 (November 1990).

Luft, Harold S., Deborah W. Garnick, David H. Mark, Deborah J. Peltzman, Ciaran S. Phibbs, Erik Lichtenberg and Stephen J. McPhee, "Does Quality Influence Choice of Hospital?", Journal of the American Medical Association 263, 2899-2906 (June 6, 1990).

Garnick, Deborah W., Erik Lichtenberg, Ciaran S. Phibbs, Harold S. Luft, Deborah J. Peltzman and Stephen J. McPhee, "The Sensitivity of Conditional Choice Models for Hospital Care to Estimation Technique", Journal of Health Economics 8, 377-397 (1989).

Lichtenberg, Erik, David Zilberman and Kenneth T. Bogen, "Regulating Environmental Health Risks Under Uncertainty: Groundwater Contamination in California", Journal of Environmental Economics and Management 17, 22-34 (July 1989).

Lichtenberg, Erik and David Zilberman, "The Econometrics of Damage Control: Reply," American Journal of Agricultural Economics 71, 445-446 (May 1989).

Lichtenberg, Erik, "Land Quality, Irrigation Development and Cropping Patterns in the Northern High Plains", American Journal of Agricultural Economics 71, 187-194 (February 1989).



- Lichtenberg, Erik, Douglas D. Parker and David Zilberman, "Marginal Analysis of Welfare Effects of Environmental Policies: The Case of Pesticide Regulation", American Journal of Agricultural Economics 70, 867-874 (November 1988).
- Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Environmental Health Risks", Quarterly Journal of Economics 49, 167-178 (February 1988).
- Lichtenberg, Erik and David Zilberman, "Regulation of Marine Contamination Under Environmental Uncertainty: Shellfish Contamination in California," Marine Resource Economics 4, 211-225 (1988).
- Lichtenberg, Erik, "Integrated vs. Chemical Pest Management: The Case of Ricefield Mosquito Control in California", Journal of Environmental Economics and Management 14, 304-312 (September 1987).
- Getz, Wayne M., Erik R. Lichtenberg and Michael E. Hochberg, "A Decision Model for Scheduling Ricefield Mosquito Control", Journal of Environmental Management 23, 361-371 (1987).
- Lichtenberg, Erik and David Zilberman, "The Welfare Economics of Price Supports in U.S. Agriculture", American Economic Review 76, 1135-1141 (December 1986).
- Lichtenberg, Erik and David Zilberman, "Regulating Environmental and Health Risks from Agricultural Residuals", Applied Agricultural Research 1, 56-64 (December 1986).
- Lichtenberg, Erik and David Zilberman, "The Econometrics of Damage Control: Why Specification Matters", American Journal of Agricultural Economics 68, 261-273 (May 1986). Publication of Enduring Quality Award, Agricultural and Applied Economics Association, 2010.
- Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Environmental Health Risks: The Case of Drinking Water Contamination in California", The Science of the Total Environment 56, 111-119, (1986) reprinted in Ricerche Economiche 39, 540-549 (1985).
- Lichtenberg, Erik and Wayne M. Getz, "The Economics of Rice Field Mosquito Control", BioScience 35, 292-297 (May 1985).
- Lichtenberg, Erik and Wayne M. Getz, "Who Should Pay for Rice-Field Mosquito Control?" California Agriculture 38(11-12), 4-6 (November-December 1984).

*c. Monographs, Reports, and Extension Publications*

i. Reports

Lichtenberg, Erik, Doug Parker, and Sarah Lane, "Best Management Practice Use and

Nutrient Management in Maryland: A 2010 Snapshot”, Center for Agricultural and Natural Resource Policy, Department of Agricultural and Resource Economics, University of Maryland, College Park, February 2012.

Lichtenberg, Erik, “Economic Incentives, Administrative Restrictions, Infrastructure Development and Urban Expansion in China”, submitted to the Lincoln Institute for Land Policy, September 2008.

Lichtenberg, Erik, “Farmland Conversion and Economic Growth in China”, submitted to the Lincoln Institute for Land Policy, October 2007.

Lichtenberg, Erik, “Impact of Uncoordinated Policies on Farmland Conversion in China”, submitted to the Lincoln Institute for Land Policy, June 2006.

Alberini, Anna, Erik Lichtenberg, Dominic Mancini, and Gregmar I. Galinato, “Monitoring and Compliance Under Seafood HACCP”, Final Report to the University of Maryland-Food and Drug Administration Joint Institute for Food Safety and Applied Nutrition, College Park, MD, June 16, 2005.

Lichtenberg, Erik, “Farmland Preservation in China: Status and Issues for Further Research”, submitted to the Lincoln Institute for Land Policy, October 2004.

Lichtenberg, Erik, Doug Parker, and Lori Lynch, “Economic Analysis of Poultry Litter Supplies”, submitted to the Maryland Department of Business and Economic Development, October 2002 and published as Policy Analysis Report 02-02, Center for Agricultural and Natural Resource Policy, University of Maryland, College Park, October 2002.

Gardner, Bruce, Robert Chase, Michael Haigh, Erik Lichtenberg, Loretta Lynch, Wesley Musser, and Doug Parker, “Economic Situation and Prospects for Maryland Agriculture”, Policy Analysis Report 02-01, Center for Agricultural and Natural Resource Policy, University of Maryland, College Park, September 2002.

Zimmerman, Rae and Erik Lichtenberg, “Acceptance and Adoption by Farmers of Pesticide Use Alternatives for Water Quality Protection”, submitted to the U.S. Environmental Protection Agency, October 1997.

Chambers, Robert G. and Erik Lichtenberg, “The Economics of Sustainable Agriculture in the Mid-Atlantic”, submitted to the USDA/EPA ACE Program, December, 1995.

Lichtenberg, Erik, Douglas Parker and David Zilberman, "Economic Impacts of Canceling Parathion Registration for Lettuce", submitted to the U.S. Environmental Protection Agency, Western Consortium for the Health Professions, San Francisco, California, June 1987.

Lichtenberg, Erik, Douglas Parker and David Zilberman, "Economic Impacts of Canceling

Parathion Registration for Prunes and Plums", submitted to the U.S. Environmental Protection Agency, Western Consortium for the Health Professions, San Francisco, California, June 1987.

Lichtenberg, Erik, Douglas Parker and David Zilberman, "Economic Impacts of Canceling Parathion Registration for Almonds", submitted to the U.S. Environmental Protection Agency, Western Consortium for the Health Professions, San Francisco, California, June 1987.

Hanemann, Michael, Erik Lichtenberg, David Zilberman, Gregory Ellis and Lloyd Dixon, "Economic Impacts of Proposed Standards for Agricultural Drainage in the San Joaquin River Basin", submitted to the California State Water Resources Control Board, Western Consortium for the Health Professions, San Francisco, California, March 1987.

Hall, C.K., E. Lichtenberg, S. Patton, M. Hanemann and D. Stuermer, "Economic and Financial Impacts of Proposed Standards for DBCP", submitted to the California Public Health Foundation, Lawrence Livermore National Laboratory, February 1987.

Zilberman, David and Erik Lichtenberg, "Framework-Case Study Design for a Risk Benefit Analysis of Pesticides in the Special Review Process - Final Report for 1985", submitted to USEPA under cooperative agreement CR811200-2. Western Consortium for the Health Professions, San Francisco, California, January 1986.

Lichtenberg, Erik and David Zilberman, "Benefits Assessment at EPA: A Characterization and Evaluation", draft report to U.S. Environmental Protection Agency, Berkeley, California, June, 1984.

Lichtenberg, Erik, David Zilberman, Robert C. Spear and Kenneth T. Bogen, "Coping with Uncertainty in Environmental Risk Assessment", draft report to U.S. Environmental Protection Agency, Berkeley, California, April 1984.

Lichtenberg, Erik, David Zilberman, Robert C. Spear and Kenneth T. Bogen, "Cascaded Risk and Compounded Uncertainty", draft report to U.S. Environmental Protection Agency, Berkeley, California, April 1984.

Lichtenberg, Erik and David Zilberman, "The Economics of On-Farm Pesticide Use", draft report to U.S. Environmental Protection Agency, Berkeley, California, March 1984.

Lichtenberg, Erik R. and Wayne Getz, "The Economics of Ricefield Mosquito Control", Report to the University of California Mosquito Control Research Committee, August 1983.

Arnold, Michael R., Karen Dvorak, and Erik Lichtenberg, "The Costs and Benefits of Alternative Reservoir Levels for the New Melones Reservoir." Friends of the River, San Francisco, California, August 1980.

ii. Extension Publications

Lichtenberg, Erik and Chengri Ding, "Food Security, Land Use Efficiency, and Farmland Preservation in China", Land Lines, Lincoln Institute of Land Policy, April 2006, 2-7.

Lichtenberg, Erik, "Harmonizing Agricultural and Environmental Policies" Extension Bulletin 507, Food and Fertilizer Technology Center, Taipei, Taiwan, December 2001.

Lichtenberg, Erik and Doug Parker, "Nutrient Management in Maryland: A 1998 Snapshot", Economic Viewpoints Department of Agricultural and Resource Economics, University of Maryland, College Park, Winter 2001.

Lichtenberg, Erik, "Soil and Water Conservation on Maryland Farms: A 1998 Update" Economic Viewpoints 4(1) Department of Agricultural and Resource Economics, University of Maryland, College Park, Spring 2000.

Lichtenberg, Erik and Guilherme S. Bastos, Filho, "Cost-Sharing Soil and Water Conservation in Maryland", Economic Viewpoints 3(3) Department of Agricultural and Resource Economics, University of Maryland, College Park, Spring 1999.

Lichtenberg, Erik and Guilherme S. Bastos, Filho, "Getting the Dirt on Soil and Water Conservation: Where Do Farmers Turn for Their Facts?", Economic Viewpoints 1(3) Department of Agricultural and Resource Economics, University of Maryland, College Park, Spring 1997.

Lichtenberg, Erik, "Using Soil and Water Conservation Practices to Reduce Bay Nutrients: How Has Agriculture Done?", Economic Viewpoints 1(2) Department of Agricultural and Resource Economics, University of Maryland, College Park, Fall 1996.

Lichtenberg, Erik, Billy V. Lessley and H. Dianel Howar, Maryland Farmers' Adoption of Best Management Practices for Non-Point Source Pollution Control. Maryland Cooperative Extension Bulletin 345, 1991.

d. *Book Reviews, Other Articles, and Notes*

Lichtenberg, Erik, review of *Pricing Irrigation Water: Principles and Cases from Developing Countries*, Agricultural and Resource Economics Review 34(1), (April 2005).

Lichtenberg, Erik and Chengri Ding, "Farmland Preservation in China: Status and Issues for Further Research", Lincoln Institute for Land Policy Working Paper WP04CD1, 2004.

Lichtenberg, Erik, " 'Genes in the Food': An Exchange", letter to the editor, New York Review of Books 15, 56-57 (October 4, 2001).

Lichtenberg, Erik, review of *Calculating Risks? The Spatial and Political Dimensions of Hazardous Waste Policy*, American Journal of Agricultural Economics 83, 799-802 (August 2001).

Lichtenberg, Erik, review of *Bugs in the System: Redesigning the Pesticide Industry for Sustainable Agriculture*, Food Policy 23, 451-452 (October 1998).

*e. Talks, Abstracts, and other Professional Papers Presented*

i. Invited talks, etc.

Lichtenberg, Erik, "Economics of Manure Management", CAFO Roundtable, Annapolis, MD, October 3, 2012.

Lichtenberg, Erik, Academic panel discussant, National Academy of Sciences E-Journal Summit, Washington, DC March 22, 2012.

Lichtenberg, Erik, "On-Farm Conservation and Nutrient Management in Maryland", University of Maryland Extension In-Service, Bowie, MD, January 26, 2012.

Lichtenberg, Erik, "On-Farm Conservation and Nutrient Management in Maryland", Center for Agricultural and Natural Resource Policy Agricultural Outlook Conference, Annapolis, MD, December 5, 2011.

Lichtenberg, Erik, "Economics of Manure Management", eXtension/Livestock and Poultry Environmental Learning Center webcast, November 30, 2011 (<http://www.extension.org/pages/61628/economics-of-using-and-transporting-manure>).

Lichtenberg, Erik, James Shortle, James Wilen, and David Zilberman, "Natural Resource Economics and Conservation: Contributions of Agricultural Economics and Agricultural Economists", presented at the annual meeting of the Agricultural and Applied Economics Association, Denver, CO July 25-27, 2010.

Lichtenberg, Erik and Ricardo Smith-Ramirez, "Slippage in Conservation Cost Sharing", Department of Agricultural and Resource Economics, Oregon State University, March 12, 2010.

Lichtenberg, Erik, Lars J. Olson, and Chad Lawley, "Cataloging the Earth: Implications for International Trade", Interagency Working Group on Scientific Collections, Washington, DC, March 12, 2008.

Lichtenberg, Erik, Lars J. Olson, and Chad Lawley, "Cataloging the Earth: Implications for International Trade", Department of Resource Economics, University of Nevada-Reno, March 3, 2008.

Lichtenberg, Erik, Lars J. Olson, and Chad Lawley, "Cataloging the Earth: Implications for International Trade", Department of Economics, University of South Carolina, December 5, 2008.

Lichtenberg, Erik, Lars J. Olson, and Chad Lawley, "Cataloging the Earth: Implications for International Trade", Department of Agricultural and Resource Economics, University of Arizona, February 20, 2008.

Lichtenberg, Erik and Chengri Ding, "Local Officials as Land Developers: Urban Spatial Expansion in China", Department of Agricultural Economics and Management, Cornell University, November 8, 2007.

Lichtenberg, Erik and Ian Hardie, "Open Space and Urban Sprawl: The Case of the Maryland Forest Conservation Act", presented at the National Center for Smart Growth Research and Education/Resources for the Future Smart Growth @ 10 Conference, College Park, MD, October 4-5, 2007.

Lichtenberg, Erik and Ian Hardie, "Open Space and Urban Sprawl: The Case of the Maryland Forest Conservation Act", presented at the annual meeting of the American Agricultural Economics Association, Portland, OR, July 29-August 1, 2007.

Lichtenberg, Erik, "Impacts of the Maryland Forest Conservation Act on Open Space in Suburban Subdivisions", presented at the University of Maryland Center for Environmental Studies Appalachian Laboratory, Frostburg, MD, April 12, 2007.

Lichtenberg, Erik, "Farmland Conversion and Economic Growth in China: Theory and Empirical Evidence", presented at the Lincoln Institute of Land Policy, Cambridge, MA, February 28, 2007.

Lichtenberg, Erik, "Market-Based Farmland Preservation Programs", presented at the Lincoln Institute for Land Policy training session for officials from the Zhejiang Ministry of Land and Resources, Hangzhou, China, December 5, 2006.

Lichtenberg, Erik, "Policies for Farmland Preservation", presented at the Lincoln Institute for Land Policy training session for officials from the Zhejiang Ministry of Land and Resources, Hangzhou, China, December 5, 2006.

Lichtenberg, Erik, "Farmland Conversion and Economic Growth in China: Theory and

- Empirical Evidence”, presented at the China Land Survey and Planning Institute, Ministry of Land and Resources, Beijing, China, December 4, 2006.
- Lichtenberg, Erik, “What Do Risk Assessments of Agricultural Biotechnologies Need to Tell Risk Managers? A Perspective from Economics”, presented at the University of California-US Department of Agriculture workshop on Microbial Pesticides and Transgenic Insects: Enhancing Regulatory Communications, Washington, DC, November 8, 2006.
- Lichtenberg, Erik, “Farmland Conversion and Economic Growth in China: Theory and Empirical Evidence”, presented at the International Food Policy Research Institute, Washington, DC, November 7, 2006.
- Lichtenberg, Erik, “Market-Based Farmland Preservation Programs”, presented at the Lincoln Institute for Land Policy training session for officials from the China Ministry of Land and Resources, College Park, Maryland, September 20, 2006.
- Lichtenberg, Erik, “Policies for Farmland Preservation”, presented at the Lincoln Institute for Land Policy training session for officials from the China Ministry of Land and Resources, College Park, Maryland, September 20, 2006.
- Lichtenberg, Erik, “Urbanization, Industrialization, and Farmland Conversion in China”, presented at the International Conference on Smart Growth and Land Use in China, Hangzhou, China, October 16-18, 2005.
- Lichtenberg, Erik, “Impacts of Urbanization and Industrial Development on Farm Productive Capacity in China: Issues and Approaches”, presented at the China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, June 17, 2005.
- Lichtenberg, Erik, “Regulation of Technology in the Context of Risk Generation”, presented at Economics of Regulation of Agricultural Biotechnologies, a conference sponsored by the Farm Foundation, the University of Maryland Center for Agricultural and Natural Resource Policy, and the Giannini Foundation, Arlington, VA March 10-12, 2005.
- Lichtenberg, Erik, “Policy Mechanisms for Farmland Preservation”, presented at the China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, July 9, 2004.
- Lichtenberg, Erik, “Policies for Farmland Preservation”, presented at the China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, July 1, 2004.
- Lichtenberg, Erik, “Hard Truths About Agriculture and the Environment”, keynote address to the Northeast Agricultural and Resource Economics Association, Portsmouth, New Hampshire, June 8-10, 2003.

- Lichtenberg, Erik, "Agriculture and Environment: Conceptual Frameworks for Policy", presented at the University of Helsinki, Finland, October 2-3, 2002.
- Alberini, Anna, Erik Lichtenberg, and Dominic Mancini, "Determinants of Inspection and Compliance in FDA's Seafood HACCP Program", JIFSAN/CFSAN Staff College Seminar, Food and Drug Administration, College Park, MD September 11, 2002.
- Lichtenberg, Erik, "Harmonizing Agricultural and Environmental Policies", keynote presentation at the KREI/FFTC International Seminar on Integration of Agricultural and Environmental Policies in an Environmental Age, Seoul, Korea, August 20-25, 2001.
- Lichtenberg, Erik, "Adverse Health Effects, Environmental Attitudes, and Farm Operators' Pest Management Decisions", presented at the Office of Pesticide Programs, U.S. Environmental Protection Agency, Crystal City, VA, January 4, 2001.
- Lichtenberg, Erik, "Thoughts on Modern Agricultural Technologies, Human Welfare, and the Environment", Fifth Annual EPA STAR Graduate Fellows Conference Panel on "The Sorcerer's Apprentice: Global Impacts of Human Technological Development", Washington, DC, July 11, 2000.
- Dimitri, Carolyn and Erik Lichtenberg, "Verification in Contracts with Random Changes in Quality", Fourth Conference on Industrial Organization and the Food Processing Industry, INRA/IDEI, University of Toulouse, Toulouse, France, June 22-23, 2000.
- Aggarwal, Rimjhim and Lichtenberg, Erik, "Environmental Regulation in Vertically Coordinated Industries", Department of Agricultural Economics, Wageningen University, Wageningen, The Netherlands, June 14, 2000.
- Lichtenberg, Erik, "Evaluating Risk Trade-Offs in Pesticide Registration Decisions", International Society of Regulatory Toxicology and Pharmacology and Council for Agricultural Science and Technology Workshop on the FQPA: A Challenge for Science Policy and Pesticide Regulation, Reston, VA, March 23-24, 1999.
- Lichtenberg, Erik, "Bioenergy and CO<sub>2</sub> Mitigation", University of California Center for Sustainable Development Workshop on CO<sub>2</sub> Sequestration Schemes and Markets for Carbon Trading in the U.S. Agricultural and Energy Sectors, Washington, DC, November 20, 1998.
- Lichtenberg, Erik, "Pesticide Benefits in Context: Productivity, Health, and Environment", Annual Meeting of the Entomological Society of America, Las Vegas, NV, November 10, 1998.
- Lichtenberg, Erik, "Pesticides and Risk", Department of Economics, Universidad de San Andres, Buenos Aires, Argentina, August 5, 1998.



- Lichtenberg, Erik, "Pesticide Regulation in the U.S.", Instituto Nacional de Tecnologia Agropecuaria/Instituto Superior de Economistas del Gobierno, Buenos Aires, Argentina, July 28, 1998
- Lichtenberg, Erik and Lars J. Olson, "Water Quality and Irreversibility", Conflict and Cooperation on Trans-Boundary Water Issues, Meeting of the International Water and Resource Economics Consortium, Annapolis, MD, April 13-16, 1997.
- Lichtenberg, Erik and Tony M. Penn, "Groundwater Policy Under Uncertainty", Department of Agricultural and Resource Economics, North Carolina State University, Raleigh, March 11, 1997.
- Zimmerman, Rae, and Erik Lichtenberg, "Farmers' Perceptions of Pesticide Risks", Annual Meeting of the Risk Assessment and Policy Association, Washington, DC, March 6-7, 1997.
- Lichtenberg, Erik and Ivar E. Strand, Jr., "Status of BMPs in Maryland: University of Maryland Survey", Patapsco/Back River and Upper Western Shore Tributary Team, Baltimore, Maryland, February 13, 1997.
- Lichtenberg, Erik and Tony M. Penn, "Groundwater Policy Under Uncertainty", Department of Agricultural Economics, University of Arizona, Tucson, December 6, 1996.
- Lichtenberg, Erik, "Certainty Equivalents in Regulatory Impact Analysis", Conference on Uncertainty and Economic Analysis of Federal Regulations, White House Conference Center, Washington, DC, November 13, 1996.
- Lichtenberg, Erik, "Economic Incentives for Cover Crop Use", Wye Research and Education Center Field Day, Wye, Maryland, August 22, 1996.
- Lichtenberg, Erik and Tony M. Penn, "Groundwater Policy Under Uncertainty", Club di Economia Applicata, Universit di Verona, Verona, Italy, July 3, 1996.
- Gardner, Bruce and Erik Lichtenberg, "Maryland Agriculture in a Changing Policy Environment", University of Maryland/Aspen Institute Workshop of Land Use and Management in Maryland, Wye, Maryland, March 21-22, 1996.
- Lichtenberg, Erik, "NAPIAP: Issues in Estimating Benefits of Pesticides", Third National Symposium on Integrated Pest Management, Washington, DC, February 28-March 1, 1996.
- Lichtenberg, Erik and Tony Penn, "Groundwater Policy Under Uncertainty", presented at the annual meetings of the Australian Agricultural and Natural Resource Economics Society, Australia, February 10-13, 1996.

Lichtenberg, Erik, "Developed Country Policies to Address Pesticide-Related Problems in Developing Countries", presented at the Entomological Society of America annual meeting, Las Vegas, Nevada, December 17-21, 1995.

Lichtenberg, Erik, "The Environmental Effects of Agricultural Commodity Programs: Comment", presented at the American Enterprise Institute Conference on Future Directions in Agricultural Policy, Washington, DC, November 4, 1994.

Lichtenberg, Erik, "Agriculture and the Environment", presented at the Federal Reserve Board of Governors, Washington, DC, June 1, 1994.

Chambers, Robert G. and Erik Lichtenberg, "Pesticide Productivity and Pest Damage in the United States: An Aggregate Analysis", presented at Pesticide Economics: A Conference in Memory of Carolyn Harper, Amherst, MA, April 25-26, 1994.

Lichtenberg, Erik, "Using Risk Assessment in Analyzing Groundwater Protection Policies", presented at the "Clean Water and the American Economy Conference", Crystal City, Virginia, October 19-21, 1992.

Lichtenberg, Erik, "Alternative Approaches to Pesticide Policy", presented at the annual meeting of the American Agricultural Economics Association, Baltimore, Maryland, August 1992.

Lichtenberg, Erik, Prabhu Pingali and Robert C. Spear, "Productivity and Environmental Tradeoffs of Pesticide Regulation", presented at the Conference on "Resource and Environmental Management in an Interdependent World", San Jose, Costa Rica, January 22-24, 1992.

Lichtenberg, Erik, "Pesticides and the Health and Safety of Farm Workers", presented at the annual meeting of the Resource Policy Consortium, Washington, DC, May 9-10, 1991.

Horowitz, John K. and Erik Lichtenberg, "Crop Insurance and Agricultural Chemical Use", presented at the Saskatchewan-Maryland Conference on the Improvement of Agricultural Crop Insurance, Regina, Saskatchewan, April 2-3, 1990.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Joint Management of Buffer Stocks of Commodities and Groundwater", presented at the annual meeting of the American Economic Association, Atlanta, GA, December 27-30, 1989.

Lichtenberg, Erik, Robert C. Spear and David Zilberman, "The Economics of Re-Entry Regulation in Controlling Pesticide-Induced Illness Among Farmworkers," presented at the Association of Environmental and Resource Economists Workshop on Estimating and Valuing Morbidity in a Policy Context, Research Triangle, NC, June 1989.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Joint Management of Buffer Stocks for Water and Commodities", presented at the University of Maryland Commercial Agricultural and Resource Policy Symposium, Baltimore, MD, May 4-5, 1989.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Effects of the Feed Grain and Wheat Programs on Irrigation and Groundwater Depletion in Nebraska", presented at the University of Maryland Commercial Agricultural and Resource Policy Symposium, Baltimore, MD, May 4-5, 1989.

Just, Richard E., Erik Lichtenberg and David Zilberman, "Effects of Commodity Programs on Health: The Case of Tobacco", presented at the University of Maryland Commercial Agricultural and Resource Policy Symposium, Baltimore, MD, May 4-5, 1989.

Lichtenberg, Erik and David Zilberman, "Quantifying Toxic Risks from Agriculture", presented at the Conference on Regional Environmental Quality and Externalities from Production Agriculture sponsored by the Consortium for Research on Crop Production Systems, Airlie House, Virginia, January 21-23, 1988.

Lichtenberg, Erik and David Zilberman, "The Economics of Waste Management in Agricultural Production Systems", presented at the Engineering Foundation Conference on Risk Analysis of Natural and Man-Made Hazards", Santa Barbara, CA, November 8-13, 1987.

Lichtenberg, Erik and David Zilberman, "Efficient Management of Health Risks from Marine Pollution", presented at the Association of Environmental and Resource Economists Workshop on Marine Pollution and Environmental Damage Assessment, Narragansett, Rhode Island, June 5-6 1986.

Lichtenberg, Erik and David Zilberman, "Problems of Pesticide Regulation: Health and Environment versus Food and Fiber", presented at the Conference on Agriculture and the Environment, National Center for Food and Agricultural Policy, Resources for the Future, Washington, D.C., April 21-22, 1986.

## ii. General Presentations

Majsztrik, John, Erik Lichtenberg, and John Lea-Cox, "A National Irrigation Management Survey for Greenhouse and Nursery Operations", American Society for Horticultural Science 2012 Annual Conference, Miami, FL, July 31-August 3, 2012.

Chappell, Matthew, Marc van Iersel, Erik Lichtenberg, John Majsztrik, Paul Thomas, John Ruter, and Sheryl Wells, "Benefits of Precision Irrigation of *Gardenia augusta* "Heaven Scent"<sup>TM</sup>: Reducing Shrinkage, Shortening the Cropping Cycle, and Economic Impact", Southern Nursery Association Research Conference, Mobile, AL, January 18-19, 2012.

Lichtenberg, Erik, Kota Minegishi, James Hanson and Dale Johnson, "Economics of Intensive Grazing in the Mid-Atlantic Region", selected paper presented at the annual meeting of

- the Agricultural and Applied Economics Association, Pittsburgh, PA, July 24-26, 2011.
- Dorfman, Jeffrey, David Hennessy, Erik Lichtenberg, and J. Edward Taylor, “Navigating Journal Writing—Advice for New and Experienced Writers”, organized symposium presented at the annual meeting of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 24-26, 2011.
- Lichtenberg, Erik, “Publishing”, NAREA Early Career Development Workshop at annual meeting of the Agricultural and Applied Economics Association, Pittsburgh, PA, July 24-26, 2011.
- Lichtenberg, Erik and Lars J. Olson, “Risk Factors for Invasive Species Introductions: Theory and Empirical Evidence”, selected paper presented at the annual meeting of the Agricultural and Applied Economics Association, Denver, CO, July 25-27, 2010.
- Dorfman, Jeffrey, David Hennessy, Erik Lichtenberg, and J. Edward Taylor, “Navigating Article Writing and the Publication Process”, organized symposium presented at the annual meeting of the Agricultural and Applied Economics Association, Denver, CO, July 25-27, 2010.
- Lichtenberg, Erik and Lars J. Olson, “Risk Factors for Invasive Species Introductions: Theory and Empirical Evidence”, selected paper presented at the Fourth World Congress of Environmental and Resource Economists, Montreal, June 28-July 2, 2010.
- Lichtenberg, Erik and Ricardo Smith Ramirez, “Slippage in Conservation Cost Sharing”, presented at the Heartland Workshop on Environmental and Resource Economics, Urbana, IL, October 25-26, 2009.
- Lichtenberg, Erik and Lars J. Olson, “Risk Factors for Invasive Pest Introductions in Commodity Imports”, ERS/Farm Foundation PREISM Workshop, Washington, DC, October 22-23, 2009.
- Ding, Chengri and Erik Lichtenberg, “Land Leasing, Infrastructure Finance, and Economic Growth in China”, Association of Collegiate Schools of Planning 50<sup>th</sup> Anniversary Conference, Crystal City, VA, October 1-4, 2009.
- Dorfman, Jeffrey H., Erik Lichtenberg, Paul V. Preckel, and Walter N. Thurman, “Publishing in the AJAE: The Editors’ Perspective”, organized symposium presented at the annual meeting of the Agricultural and Applied Economics Association, Milwaukee, WI, July 28, 2009.
- Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, “Cross-Compliance versus Targeted Agri-Environmental Payments in a Heterogeneous Landscape”, presented at the European Association of Agricultural Economists XII Annual Congress, Ghent, Belgium, August 26-29, 2008.

Lichtenberg, Erik, Lars J. Olson, and Chad Lawley, "Cataloging the Earth: Implications for International Trade", Environmental Economics Brownbag, Department of Economics, University of California San Diego, May 5, 2008.

Lichtenberg, Erik and Ian Hardie, "Forest Conservation, Zoning, and Urban Sprawl", presented at the mid-year meeting of the American Real Estate and Urban Economics Association, Washington, DC, May 29-30, 2007.

Alberini, Anna, Erik Lichtenberg, Dominic Mancini, and Gregmar Galinato, "Was Is Something I Ate? Implementation of the FDA Seafood HACCP Program", presented at the Third World Congress of Environmental and Resource Economists, Kyoto, Japan, July 3-7, 2006.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Point/Nonpoint Effluent Trading with Spatial Heterogeneity", presented at the annual conference of the Agricultural Economics Society, Paris, March 30-31, 2006.

Lichtenberg, Erik, "Urbanization, Industrialization, and Farmland Conversion in China", presented at the annual meeting of the Association of Schools of City Planning, Kansas City, MO, October 29, 2005.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Performance of Alternative Policies in Addressing Environmental Dimensions of Multifunctionality", presented at the Agricultural Economics Society Annual Conference, Nottingham, England, April 2-6, 2005.

Lichtenberg, Erik, "The Economics of Co-Permitting", presented at the annual meeting of the American Agricultural Economics Association, Denver, CO, August 1-4, 2004.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Water Quality Management with Spatial Heterogeneity", presented at the AERE Workshop on Spatial Theory, Modeling, and Econometrics in Environmental and Resource Economics, Madison, Wisconsin, June 15-17, 2003.

Lichtenberg, Erik, "Are Decoupling and Green Payments Good for the Environment?", presented at the Northeast Agricultural and Resource Economics Association Workshop on Linkages between Agricultural and Conservation Policies, Portsmouth, New Hampshire, June 10-11, 2003.

Aggarwal, Rimjhim, and Erik Lichtenberg, "Environmental Regulation in Vertically Coordinated Industries", presented at the Second Annual Conference on Contracts in Agriculture, Annapolis, MD, July 21-23, 2002.

Lichtenberg, Erik, "Tenancy and Soil Conservation in Market Equilibrium", presented at the Second Annual Conference on Contracts in Agriculture, Annapolis, MD July 21-23, 2002.

- Aggarwal, Rimjhim, and Erik Lichtenberg, "Environmental Regulation in Vertically Coordinated Industries", presented at the Second World Congress of Environmental and Resource Economists, Monterey, CA, June 24-27, 2002.
- Lichtenberg, Erik, "Tenancy and Soil Conservation in Market Equilibrium", presented at the Second World Congress of Environmental and Resource Economists, Monterey, CA, June 24-27, 2002.
- Lichtenberg, Erik, "Tenancy and Soil Conservation in Market Equilibrium", presented at the annual meeting of the American Agricultural Economics Association, Chicago, IL, August 5-8, 2001.
- Lichtenberg, Erik, and K. Linh Nguyen "Pesticide Productivity in Green Revolution Rice Production: A Case Study of Vietnam", presented at the annual meeting of the American Agricultural Economics Association, Chicago, IL, August 5-8, 2001.
- Guilherme S. Bastos, Filho and Lichtenberg, Erik, "Cost Sharing for Soil and Water Conservation: A Revealed Preference Study of Federal Priorities", PET 2000, the Second International Conference of the Association for Public Economic Theory (APET), Warwick University July 20-23, 2000.
- Dimitri, Carolyn, and Erik Lichtenberg, "Quality Verification in Contracts for Agricultural Commodities", presented at The Economics of Quality Control in Agriculture, Saskatoon Saskatchewan, December 2-4, 1999
- Aggarwal, Rimjhim, and Erik Lichtenberg, "Environmental Regulation in Vertically Coordinated Industries", presented at the joint annual meeting of the Association of Environmental and Resource Economists and American Agricultural Economics Association, Nashville, TN, August 8-11, 1999.
- Lichtenberg, Erik and Rae Zimmerman, "Attitudes of Agricultural Researchers vs. Farm Operators with Respect to Risks of Pesticide Use", presented at the annual meeting of the Society for Risk Analysis, Washington, DC, December 9, 1997.
- Lichtenberg, Erik and Rae Zimmerman, "Farmers' Perceptions of Pesticide Risks", presented at the international meeting of the Risk Assessment and Policy Association, Washington, DC, March 6-7, 1997.
- Lichtenberg, Erik and Rae Zimmerman, "Adoption of Alternative Pest Management Practices and Pesticide Use in the Mid-Atlantic", presented at the Third National Symposium on Integrated Pest Management, Washington, DC, February 28-March 1, 1996.
- Chambers, Robert G. and Erik Lichtenberg, "Econometric Evaluation of IPM in Maryland Field Crops", presented at the Third National Symposium on Integrated Pest

Management, Washington, DC, February 28-March 1, 1996.

Lamp, William, Erik Lichtenberg, David Liewehr, and Lester Vough, "Joint Use of Intercropping and Pesticides to Control Leafhopper on Alfalfa", presented at the Third National Symposium on Integrated Pest Management, Washington, DC, February 28-March 1, 1996.

Lichtenberg, Erik and Angelo Zago, "Production and Marketing of Low-Pesticide-Residue Commodities", presented at the Workshop on Pesticides, Wageningen Agricultural University, Wageningen, the Netherlands, August 24-27, 1995.

Robin L. Graham, Erik Lichtenberg, Vernon O. Roningen, Hossein Shapouri, and Marie E. Walsh, "The Economics of Biomass Production in the United States", presented at the Second Annual Conference on Biomass, Oregon, 1995.

Zimmerman, Rae, Erik Lichtenberg, Johnny Blair, and Beth Webb, "Farm Operator Perceptions of Water Quality Protective Pest Management Practices: Selected Survey Findings", presented at the National Association of Environmental Professionals annual meeting, Washington, DC, June 13-14, 1995.

Lichtenberg, Erik, "The Economics of Cosmetic Pesticide Use", presented at the Northeast Regional Project NE-165 Workshop on the Economics of Food Safety, Washington, DC, June 5-6, 1995.

Lichtenberg, Erik, "Biomass Electricity and the 1995 Farm Bill", presented at the U.S. Environmental Protection Agency, Washington, DC, January 4, 1995.

Lichtenberg, Erik, "The Environmental Effects of Agricultural Commodity Programs: Comment", presented at the American Enterprise Institute Conference, "Future Directions in Agricultural Policy", Washington, DC, November 4, 1994.

Lichtenberg, Erik, "Comments on 'Vulnerability of Agricultural Crops to Climate Change: A Practical Method of Indexing'", presented at the Economic Research Service/Farm Foundation Conference, "Global Environmental Change and Agriculture: Assessing the Impacts", Rosslyn, VA, October 27, 1994.

Kelly, Henry, and Erik Lichtenberg, "Economic Potential of Biomass Electric Power Generation", presented at the Electric Power Research Institute Waste-to-Energy Working Group, Arlington, VA, May 4, 1994.

Kelly, Henry, and Erik Lichtenberg, "Biomass-Based Electricity Production", presented at the First Annual Meeting of the, March 10, 1994.

Lichtenberg, Erik, "Urban versus Agricultural Interests in Groundwater Quality", presented at the Conference on Water Quantity/Quality Disputes and Their Resolution, Washington, DC, May 2-3, 1992.

Lichtenberg, Erik, Ivar E. Strand, Jr. and Billy V. Lessley, "Subsidizing Agricultural Non-Point Source Pollution Control: How Well Do Cost Sharing and Technical Assistance Perform?", presented at the Association of Environmental and Resource Economists Workshop on the Management of Nonpoint-Source Pollution, Lexington, KY June 6-7, 1991.

Lichtenberg, Erik, Ivar E. Strand, Jr. and Billy V. Lessley, "Farm Size, Cost Sharing, Technical Assistance and Maryland Farmers' Use of Best Management Practices", presented at the Chesapeake Research Consortium conference on "New Perspectives in the Chesapeake System: A Research and Management Partnership", Baltimore, MD, December 4-5, 1990.

Hanson, James C., Dale Johnson, Billy V. Lessley, Erik Lichtenberg and A.M. Decker, "Economics of Cover Crops for Soil Conservation in Maryland", presented at the annual meeting of the American Society of Agronomy, San Antonio, TX, October 21-26, 1990.

Lichtenberg, Erik and David Zilberman, "The Economics of Storage Technology", presented at the annual meeting of the American Agricultural Economics Association, Vancouver, BC, August 5-8, 1990.

Lichtenberg, Erik, Billy V. Lessley and H. Daniel Howar, "Adoption of Best Management Practices for Non-Point Source Pollution Control by Maryland Farmers", presented at the annual meeting of the Northeast Agricultural and Resource Economics Association, Truro, Nova Scotia, June 18-20, 1990.

Horowitz, John K. and Erik Lichtenberg, "Estimation of Adverse Selection and Moral Hazard Effects with Multiple-Peril Crop Insurance", presented at the Fifth International Conference on the Foundation and Applications of Utility, Risk and Decision Theories, Durham, NC, June 9-13, 1990.

Lichtenberg, Erik, "Implications of Risk Assessment Procedures for Health and Safety Policy", presented at the Northeast Regional Project NE-165 Workshop on the Economics of Food Safety, Alexandria, VA, June 4-6, 1990.

Hanemann, Michael, Erik Lichtenberg and David Zilberman, "Conservation Versus Cleanup in Agricultural Drainage Control", presented at the annual meeting of the American Agricultural Economics Association, Baton Rouge, LA, July 30-August 2, 1989.



Lichtenberg, Erik, Dan Howar, Billy V. Lessley and Ivar Strand, "Factors Influencing the Adoption of Best Management Practices for Non-point Source Pollution Control: Preliminary Results from the 1986-1987 Maryland Farmer Survey", presented at the Fifth Annual Conference on the Economics of Chesapeake Bay Management, Annapolis, MD, June 1-2, 1989.

Garnick, Deborah W., Erik Lichtenberg, Ciaran S. Phibbs, Harold S. Luft, Deborah J. Pelzman and Stephen J. McPhee, "The Sensitivity of Conditional Choice Models of Hospital Care to Estimation Technique", presented at a joint session of the American Economic Association/Health Economics Research Organization annual meetings, New York, NY, December 28-30, 1988.

Babcock, Bruce A., Erik Lichtenberg and David Zilberman, "Estimating the Productivity of Pesticides in Controlling Yield and Quality Damage", presented at the annual meeting of the American Agricultural Economics Association, Knoxville, Tennessee, August 1-3, 1988.

Lichtenberg, Erik, Douglas D. Parker and David Zilberman, "Marginal Analysis of Welfare Effects of Environmental Policies: The Case of Pesticide Regulation", presented at the annual meetings of the American Agricultural Economics Association, Lansing, Michigan, August 3-5, 1987.

Zilberman, David, Margriet F. Caswell and Erik Lichtenberg, "Modeling the Adoption of Irrigation Technologies", presented at a conference sponsored by the Consortium for Research on Crop Production Systems, Urbana, Illinois, June 1987.

Bogen, Kenneth T., Erik Lichtenberg and David Zilberman, "A Statistical Framework for Quantitative Risk Assessment", presented at the annual meetings of the American Public Health Association, Las Vegas, Nevada, September 30-October 1, 1986.

Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Groundwater Contamination in California", presented at the annual meetings of the American Public Health Association, Las Vegas, Nevada, September 29-October 1, 1986.

Bogen, Kenneth T., Erik Lichtenberg and David Zilberman, "A Statistical Framework for Quantitative Risk Assessment", presented at the annual meetings of the Society for Risk Analysis, September 1986.

Lichtenberg, Erik and David Zilberman, "Health and Environmental Impacts of Agricultural Policies", presented at the annual meetings of the American Agricultural Economics Association, Reno, Nevada, July 28-30, 1986.

- Lichtenberg, Erik, Robert C. Spear and David Zilberman, "The Economics of Re-Entry Regulation: The Case of Apple Production", presented at the annual meetings of the American Agricultural Economics Association, Reno, Nevada, July 28-30, 1986.
- Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Groundwater Contamination", presented at the Conference on Decision Criteria for Residuals Management in Agriculture, Sacramento, California, April 17-18, 1986.
- Lichtenberg, Erik and David Zilberman, "Heterogeneous Production and Input Regulation in Agriculture: A Conceptual Framework for Welfare Analysis", presented at the annual meeting of the Southern Economic Association, Dallas, Texas, November 24-26, 1985.
- Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Environmental Health Risks: The Case of Drinking Water Contamination in California", presented at the International Conference on Man's Role in Changing the Global Environment, Venice, Italy, October 21-26, 1985.
- Lichtenberg, Erik and David Zilberman, "Regulating Environmental Health Risks Efficiently in Developing Countries: The Case of Latin America", presented at the First Conference on Environmental Economics in Mexico and Latin America, Monterey, Mexico, September 9-13, 1985.
- Lichtenberg, Erik and David Zilberman, "Heterogeneous Production and Input Regulation in Agriculture: A Conceptual Framework for Welfare Analysis", presented at the annual meeting of the American Agricultural Economics Association, Ames, Iowa, August 5-8, 1985.
- Lichtenberg, Erik and David Zilberman, "Efficient Regulation of Environmental Health Risks", presented at the annual meeting of the Western Economic Association, Anaheim, California, July 1-4, 1985.
- Lichtenberg, Erik and David Zilberman, "The Economics of Pesticide Use: Why Specification Matters", presented at the annual meeting of the American Association of Agricultural Economics, Ithaca, New York, August 1984.
- Lichtenberg, Erik, "The Economics of Rice Field Mosquito Control", presented at the annual meeting of the University of California Mosquito Research Committee, Berkeley, California, May 1984.

### iii. Unrefereed Conference Proceedings

Chappell, Matthew, Marc van Iersel, Erik Lichtenberg, John Majsztrik, Paul Thomas, John Ruter, and Sheryl Wells, "Benefits of Precision Irrigation of *Gardenia augusta* "Heaven Scent"<sup>TM</sup>: Reducing Shrinkage, Shortening the Cropping Cycle, and Economic Impact", Southern Nursery Association Research Conference 57, 321-323, 2012.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Cross-Compliance versus Targeted Agri-Environmental Payments in a Heterogeneous Landscape", Proceedings of the European Association of Agricultural Economists XII Annual Congress, Ghent, Belgium, August 26-29, 2008.

Lichtenberg, Erik, "Urbanization, Industrialization, and Farmland Conversion in China", presented at the International Conference on Smart Growth and Land Use in China, Hangzhou, China, October 16-18, 2005.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, "Water Quality Management with Spatial Heterogeneity", presented at the AERE Workshop on Spatial Theory, Modeling, and Econometrics in Environmental and Resource Economics, Madison, Wisconsin, June 15-17, 2003.

Lichtenberg, Erik, "Comments on Perceptions and Ethics as Considerations Relating to Genetic Engineering of Food and Biomass Crops", in N.J. Rosenberg, F.B. Metting, and R.C. Izaurralde (ed.), Applications of Biotechnology to Mitigation of Greenhouse Warming. Columbus: Batelle Press, 2004.

Lichtenberg, Erik and Angelo Zago, "Producing and Marketing Low-Pesticide-Residue Commodities", in A.J. Oskam and R.A.N. Vijftigschild (ed.), Proceedings and Discussions of a Workshop on Pesticides. Wageningen Agricultural University, May 1997.

Lichtenberg, Erik, and Tony M. Penn, "Groundwater Quality Policy Under Uncertainty", in John J. Pigram (ed.), Security and Sustainability in a Mature Water Economy, Proceedings of an international workshop of the Water and Resource Economics Consortium, Center for Water Policy Research, University of New England, Armidale, Australia, 1996.

Gardner, Bruce L., and Erik Lichtenberg, "Maryland Agriculture in a Changing Policy Environment", in Earl H. Brown and Cynthia N. Buniski (ed.), Land Use and Management in Maryland, University of Maryland-College Park and the Aspen Institute, 1996.

Lichtenberg, Erik, "Grading Standards and Pesticides", in Julie Caswell (ed.), The Economics of Reducing Health Risk from Food, Food Marketing Policy Center, Department of Agricultural and Resource Economics, University of Connecticut, 1996.

Lichtenberg, Erik, "Using Risk Assessment in Analyzing Groundwater Protection Policies", in Clean Water and the American Economy. Washington, DC: Environmental Protection Agency, 1993.

Lichtenberg, Erik, Ivar E. Strand, Jr. and Billy V. Lessley, "Farm Size, Cost Sharing, Technical Assistance and Maryland Farmers' Use of Best Management Practices", in Joseph Mihurski and Ann Chaney (ed.), New Perspectives in the Chesapeake System: A Research and Management Partnership, Proceedings of the 1990 Chesapeake Research Conference, 1991.

Lichtenberg, Erik, Dan Howar, Billy V. Lessley and Ivar Strand, "Factors Influencing the Adoption of Best Management Practices for Non-point Source Pollution Control: Preliminary Results from the 1986-1987 Maryland Farmer Survey", Proceedings of the Fifth Annual Conference on the Economics of Chesapeake Bay Management. Bureau of Business and Economic Research, University of Maryland, September 1989.

Lichtenberg, Erik and David Zilberman, "The Economics of Waste Management in Agricultural Production Systems", in Y. Haiman (ed.), Proceedings of the Engineering Foundation Conference on Risk Analysis of Natural and Man-Made Hazards, 1988.

Lichtenberg, Erik and David Zilberman, "Managing Environmental and Human Health Risks from Agricultural Residuals", in Gerald L. Horner (ed.), Decision Criteria for Residuals Management in Agriculture, University of California, April 1986.

*i. Contracts and Grants*

“Developing Scientifically-Based Consensus Food Safety Metrics for Leafy Greens and Tomatoes”, National Institute for Food and Agriculture, US Department of Agriculture Specialty Crop Research Initiative, October 1, 2011-September 30, 2013, \$295, 410 (Robert Buchanan, project director, total project budget \$5.4 million).

“Structural Change and the Aggregate and Farm-Level Productivity Growth of U.S. Crop Firms”, Economic Research Service, US Department of Agriculture, August 2011-March 2012, \$20,744.

“Managing Irrigation and Nutrients with Distributed Sensing”, National Institute for Food and Agriculture, US Department of Agriculture Specialty Crop Research Initiative, October 1, 2009-September 30, 2014, \$421,114 (John Lea-Cox, principal investigator, total project budget \$5.2 million).

“Risk Factors for Invasive Pest Introductions in Commodity Imports”, Economic Research Service, US Department of Agriculture Program in the Economics of Invasive Species Management (PREISM), October 1, 2008-September 30, 2010, \$172,324

(Lars Olson, co-principal investigator).

“The Economic Value of the Beltsville Agricultural Research Center’s Systematics Program”, Beltsville Agricultural Research Center, Agricultural Research Service, US Department of Agriculture, 2005-2008, \$347,240 (Lars Olson, co-principal investigator)

“Farmland Conversion and Economic Growth in China”, Lincoln Institute for Land Policy, 2005-2006, \$50,030 (June 1, 2006-May 31, 2007).

“Impact of Uncoordinated Policies on Farmland Conversion in China”, Lincoln Institute for Land Policy, 2005-2006, \$49,991 (Lori Lynch, co-principal investigator).

“Effect of Local Land Use Regulations on the Configuration of Residential Subdivisions in Maryland”, National Center for Smart Growth Research and Education Small Grants Program, June 1, 2003-May 31, 2004, \$20,000.

“The Economics of Co-Permitting”, National Center for Manure and Animal Waste Management, \$30,864.

“Practical Aspects of Manure Marketing”, National Center for Manure and Animal Waste Management (Doug Parker, co-principal investigator), \$18,685.

“Economic Analysis of Poultry Litter Supplies”, Maryland Department of Business and Economic Development, June 1, 2001-May 31, 2002, \$71,000 (Doug Parker, co-principal investigator).

“Maryland Farmers’ Responses to Incentives for Best Management Practice Use”, (with Doug Parker) Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 2000-June 30, 2002, \$40,000 (Doug Parker, co-principal investigator).

“National Center for Manure and Animal Waste Management”, U.S. Department of Agriculture Fund for Rural America, \$4,490,562 (13-state, 16-institution consortium in which I serve as co-coordinator of the socioeconomic focus area with a current annual budget of \$83,000, scheduled to double in years 3 and 4).

“Integrated Model for the Design and Evaluation of Nutrient Management Policies”, U.S. Department of Agriculture Economic Research Service, September 15, 1999-December 31, 2000, \$20,000 (Doug Parker, co-principal investigator).

“Vertical Coordination and Environmental Regulations in Agriculture”, U.S. Department of Agriculture National Research Initiative Competitive Grants Program, July 1, 1999-June 30, 2001, \$95,080 (Rimjhim Aggarwal, co-principal investigator).

“Soil Conservation on Rental Land”, Maryland Agricultural Experiment Station Competitive

Grants Program, July 1, 1999-June 30, 2000, \$20,000.

“Use of Soil and Water Conservation Practices by Maryland Farmers”, Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1997-June 30, 1999, \$45,000.

“Pesticide Usage and Benefits for Processing Peas in Maryland”, National Agricultural Pesticide Impact Assessment Program, September 1, 1996-December 31, 1997, \$25,000 (Charles Edward Beste and Jim Linduska, co-principal investigators).

"Evaluating Maryland's Integrated Pest Management Programs", Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1996-June 30, 1997, \$13,000.

"Adoption of Best Management Practices by Maryland Farmers", Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1996-June 30, 1997, \$10,000.

“Joint Production of Rice, Fish, Frogs, and Mollusks: Implications for Pesticide Use in Vietnam”, Rockefeller Foundation, June 1, 1996-May 30, 1998, \$20,000.

“National Needs Fellowship in Water Policy”, Cooperative State Research Education and Extension Service Higher Education Program, U.S. Department of Agriculture, September 1, 1995-August 30, 2000, \$54,000

"Adoption of Best Management Practices by Maryland Farmers", Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1995-June 30, 1996, \$15,000

"Economics of Transition to Sustainable Farming" U.S. Environmental Protection Agency, October 1, 1993-September 30, 1996, \$219,788 (Robert Chambers and James Hanson, co-principal investigators).

"Development of Alfalfa-Oat Intercrop Systems to Reduce Leafhopper Impact", U.S. Department of Agriculture, SARE Program, July 19, 1993-, \$124,879 (William O. Lamp, co-principal investigator).

- "The Economics of Sustainable Farming in the Mid-Atlantic Region", U.S. Department of Agriculture-U.S. Environmental Protection Agency Agriculture in Concert with the Environment (ACE) Program, July 1, 1992-September 30, 1996, \$104,951 (Robert Chambers and James Hanson, co-principal investigators).
- "Alternative Management of Leafhopper Pests in Integrated Farming Systems: Demonstration of Biological and Cultural Controls", U.S. Department of Agriculture, LISA Program, February 1, 1992-January 31, 1994, \$62,400 (William O. Lamp, principal investigator).
- "Agricultural Groundwater Contamination and Land Values: Theory and Application", U.S. Geological Survey, September 1, 1991-August 31, 1994, \$64,642 (K.E. McConnell, co-principal investigator).
- "An Integrated Model for Policy Analysis of Agricultural Groundwater Contamination in Maryland", University of Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1989-June 30, 1991, \$45,000.
- "A Behavioral Model of Factors Influencing Maryland Farmers' Adoption of Best Management Practices for Pollution Control", University of Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1990-June 30, 1991, \$15,000.
- "Managing Multiple Chronic Health Risks from Groundwater Contamination", U.S. Department of Agriculture, Economic Research Service, October 1, 1989-September 30, 1991, \$51,000.
- "Economic and Financial Impacts of Proposed Standards for Drinking Water Contamination", State of California Department of Health Services.
- "Economic Impacts of Proposed Standards for Agricultural Drainage in the San Joaquin River Basin", State of California Water Resources Control Board".
- "Economic Impacts of Canceling the Registration of Ethyl Parathion on Almonds, Plums and Prunes, and Lettuce", U.S. Environmental Protection Agency (David Zilberman and Doug Parker, co-principal investigators).
- "Economics of Drainage Management in the West Side of the San Joaquin Valley", San Joaquin Valley Drainage Program (U.S. Bureau of Reclamation, State of California Department of Water Resources) (David Zilberman and Michael Hanneman, co-principal investigators).
- "Framework Case-Study Design for Risk Benefit Analysis of Pesticides", U.S. Environmental Protection Agency (David Zilberman, principal investigator).

*j. Fellowships, Prizes, and Awards*

Fellow, Agricultural and Applied Economics Association, 2010.

Agricultural and Applied Economics Association Publication of Enduring Quality Award for “The Econometrics of Damage Control: Why Specification Matters”, 2010.

PhD Advisor for Ricardo Smith-Ramirez, recipient of AAEE Best PhD Dissertation Award, 2006.

Marquis Who’s Who in Science and Engineering, 2003-.

Bronze Medal, University of Helsinki, 2002.

Marquis Who’s Who in America, 2002-.

University of Maryland College of Agriculture and Natural Resources Alumni Association Award for Excellence in Research, 2000.

Fulbright Scholar Award, Argentina, 1998.

Pew Memorial Trust Fellowship in Health Policy, 1987-1989.

*k. Editorships, Editorial Boards, and Reviewing Activities for Journals and other Learned Publications*

Program Committee, Association of Environmental and Resource Economists Annual Conference, 2012-2013.

Editor, American Journal of Agricultural Economics, 2008-2012 (volumes 91-94).

Associate Editor, American Journal of Agricultural Economics, 1997-2002.

Editorial Board, Agricultural and Resource Economics Review, 1994-1995.

Topic leader for environmental economics, American Agricultural Economics Selected Papers Committee, 1991.

Selected Papers Committee, Association of Environmental and Resource Economists, 1991-1992.

Reviewer, Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use, National Research Council, 2010.



#### 4. Service

##### *a. Professional Service*

Economics Panel, U.S.-Israel Binational Agricultural Research and Development Fund (BARD) Competitive Grants Program (2007-2008).

National Research Council Committee on Genetically Modified Crops Containing Pesticide Genes (1999-2000).

ESCOPE/ECOP Task Force on Agricultural Biotechnology (1999-2001).

Consultant, National Research Council Committee on the Future Role of Pesticides in U.S. Agriculture (1997-1999).

National Research Council Committee on Assessing Crop Yield (1996-1997).

Chair, U.S. Economics Panel, U.S.-Israel Binational Agricultural Research and Development Fund (BARD) Competitive Grants Program (1994-1995).

Maryland Department of Natural Resources, Maryland Power Plant Research Program Acid Deposition Advisory Committee (1993-1998).