

## **Erik Lichtenberg**

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### **PERSONAL INFORMATION**

#### **Educational Background**

Ph.D., Agricultural and Resource Economics, University of California, Berkeley, California, 1985.

B.A., Linguistics, University of Chicago, Chicago, Illinois, 1973 (General Honors).

#### **Academic Appointments at UMD**

Professor, Department of Agricultural and Resource Economics, 1998-present, University of Maryland, College Park, Maryland. 1998-present.

Senior Economist for Agriculture, Natural Resources, and International Trade, Council of Economic Advisers, Executive Office of the President, 1993-1994.

Associate Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, Maryland, 1992-1998.

Assistant Professor, Department of Agricultural and Resource Economics, University of Maryland, College Park, Maryland, 1988-1992.

Fellow, Pew Health Policy Program, Institute for Health Policy Studies, University of California, San Francisco, 1987.

Director of Environmental Economics, Western Consortium for the Health Professions, 1983-1987.

Visiting Lecturer and Teaching Associate, Department of Agricultural and Resource Economics University of California, Berkeley, 1982-1986.

### **RESEARCH, SCHOLARLY AND CREATIVE ACTIVITIES**

#### **Books**

#### **Chapters**

Lichtenberg, Erik, "Conservation, the Farm Bill, and U.S. Agri-Environmental Policy", in Vincent H. Smith (ed.), The Economic Welfare and Trade Relations Implications of the 2014 Farm Bill. Bingley, UK: Emerald, 2015.

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, David Zilberman and Kenneth T. Bogen, "Regulating Environmental Health Risks Under Uncertainty: Groundwater Contamination in California", in Sandra S. Batie and Richard D. Horan (ed.), International Library of Environmental Economics and Policy. London: Ashgate, 2004.; (Reprinted from Journal of Environmental Economics and Management 17, 22-34 (July 1989)).

Zilberman, David, Andrew Schmitz, Gary Casterline, Erik Lichtenberg and Jerome B. Siebert, "The Economics of Pesticide Use and Regulation", in Sandra S. Batie and Richard D. Horan (ed.), International Library of Environmental Economics and Policy. London: Ashgate, 2004.; (Reprinted from Science 253, 518-522 (2 August 1991)).

Lichtenberg, Erik, Douglas D. Parker and David Zilberman, "Marginal Analysis of Welfare Effects of Environmental Policies: The Case of Pesticide Regulation", in Sandra S. Batie and Richard D. Horan (ed.), International Library of Environmental Economics and Policy. London: Ashgate, 2004.; (Reprinted from American Journal of Agricultural Economics 70, 867-874 (November 1988)).

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, 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.

### **Encyclopedia**

Lichtenberg, Erik, “Economics of Pesticide Use and Regulation”, in Jason Shogren (ed.), Encyclopedia of Energy, Natural Resource and Environmental Economics. Elsevier, 2013.

### **Articles in Refereed Journals**

Saavoss, Monica, John Majsztrik, Bruk Belayneh, John Lea-Cox and Erik Lichtenberg, “Yield, Quality and Profitability of Sensor-Controlled Irrigation: A Case Study of Snapdragon (*Antirrhinum majus L.*) Production”, Irrigation Science 34, 409-420 (2016).

Lichtenberg, Erik and Elina Tselepidakis Page, “Prevalence and Cost of On-Farm Produce Safety Measures in the Mid-Atlantic”, Food Control 69, 315-323 (2016).

Lichtenberg, E., J. Majsztrik, and M. Saavoss, “Grower Demand for Sensor-Controlled Irrigation”, Water Resources Research 51, 341–358 (January 2015) (Editor’s Choice Award), doi:[10.1002/2014WR015807](https://doi.org/10.1002/2014WR015807).

Feng, Juan#, Erik Lichtenberg\* and Chengri Ding, “Balancing Act: Economic Incentives, Administrative Restrictions, and Urban Land Expansion in China”, China Economic Review 36, 184-197 (December 2015).

Ding, Chengri\*, Yi Niu and Erik Lichtenberg, “Spending Preferences of Local Officials with Off-Budget Land Revenues of Chinese Cities”, China Economic Review 31, 265-276 (December 2014).

Lichtenberg, Erik\*, “Conservation, the Farm Bill, and U.S. Agri-Environmental Policy”, Choices 29(3), 1-6 (3<sup>rd</sup> Quarter 2014).

Kawasaki, Kentaro# and Erik Lichtenberg\*, “Econometric Analysis of Grading Standards: The Ordered Fractional Approach”, American Journal of Agricultural Economics 96(1), 345-365 (January 2014).

Lichtenberg, Erik\*, #John Majsztrik, and #Monica Saavoss, “Profitability of Sensor-Based Irrigation in Greenhouse and Nursery Crops”, HortTechnology 23(6), 770-774 (December 2013).

Majsztrik, John#\*, Erik Lichtenberg, and #Monica Saavoss, “Ornamental Grower Perceptions of Sensor Networks”, HortTechnology 23(6), 775-782 (December 2013).

Belayneh, Bruk E., John D. Lea-Cox and Erik Lichtenberg, “Costs and Benefits of Implementing Sensor-Controlled Irrigation in a Commercial Pot-in-Pot Container Nursery”, HortTechnology 23(6), 760-769 (December 2013).

Lea-Cox, John D.\*, William L. Bauerle, Marc W. van Iersel, George F. Kantor, Taryn L. Bauerle, Erik Lichtenberg, Dennis M. King, and Lauren Crawford, “Advancing Wireless Sensor Networks for Irrigation Management of Ornamental Crops: An Overview”, HortTechnology 23(6), 717-724 (December 2013).

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 96(3), 1894-1904 (March 2013).

Chappell, M. M. van Iersel, J. Ruter, E. Lichtenberg, J. Majsztrik, and P. Thomas, “Drop by Drop: Precision Irrigation Saves Significant Costs”, Nursery Management June 12, 2012.  
<http://www.nurserymanagementonline.com/nm0612-precision-irrigation-benefits.aspx>

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), 1198-1204 (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 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 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), 250-267 (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, 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", Science253, 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 Association263, 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 Management17, 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 Economics49, 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).

### **Published Conference Proceedings**

Lea-Cox, J.D., B.E. Belayneh, J. Majsztrik, E. Lichtenberg, M.W. Van Iersel, M. Chappell, W.L. Bauerle, G. Kantor, D. Kohanbash, T. Martin, L. Crawford, "Demonstrated Benefits of Using Sensor Networks for Automated Irrigation Control in Nursery and Greenhouse Production Systems" Acta Horticulturae, Proceedings of the VIII International Symposium on Irrigation of Horticultural Crops, January 2017.

Majsztrik, John, Erik Lichtenberg, and John D. Lea-Cox, "A National Perspective on Irrigation Trends and Sensor Network adoption in Ornamental Nursery and Greenhouse Operations", Irrigation Association National Meeting, Orlando, FL, November 2-6, 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 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.

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. Haimes (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.

### **Conferences, Workshops and Talks**

#### ***Keynotes***

Lichtenberg, Erik, Hard Truths About Agriculture and the Environment, Northeast Agricultural and Resource Economics Association, Portsmouth, New Hampshire, keynote address, June 8-10, 2003.

Lichtenberg, Erik, Harmonizing Agricultural and Environmental Policies, KREI/FFTC International Seminar on Integration of Agricultural and Environmental Policies in an Environmental Age, Seoul, Korea, keynote presentation, August 20-25, 2001.

#### ***Invited Talks***

Lichtenberg, Erik, Conservation and Environmental Quality in the Next Farm Bill, annual meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 30-August 1, 2017.

Lichtenberg, Erik, The Farm Bill, Conservation, and the Environment, American Enterprise Institute Agricultural Policy Workshop, Washington, DC, March 17-18, 2017.

Lichtenberg, Erik, Land, Governance, and Economic Growth in China, World Bank, Washington, DC, November 30, 2016.

Lichtenberg, Erik, Economic Impacts of Changes in Phosphorus Regulation, Chesapeake Bay Program Scientific and Technical Advisory Committee, Williamsburg, VA, June 10, 2015

Lichtenberg, Erik, Agri-Environmental Policy in the US: Implications for PES Program Design, Department of Environmental Sciences, Emory University, Atlanta, GA, March 16, 2015.

Lichtenberg, Erik and Lars J. Olson, Tariffs and the Risk of Invasive Pest Introductions in Commodity Imports: Theory and Empirical Evidence, Department of Economics, University of Connecticut, Storrs, CT, March 6, 2015

Lichtenberg, Erik and Lars J. Olson, Tariffs and the Risk of Invasive Pest Introductions in Commodity Imports: Theory and Empirical Evidence, Department of Agricultural Economics, Purdue University, February 25, 2014.

Lichtenberg, Erik and Elina Tselepidakis, Prevalence and Cost of On-Farm Food Safety Measures in the Mid-Atlantic, Center for Food Safety and Applied Nutrition, Food and Drug Administration, College Park, MD, November 6, 2013.

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

Lichtenberg, Erik, Discussant for Molua and de los Angeles Micro-level Analysis of Land Capital Management as Robust Autonomous Adaptation Response by Farmers to Climate Stress and Climate Change Perception in Cameroon, Conference on the Economics of Adaptation to Climate Change, Institute for Economic Policy, Elliott School of Public Affairs, George Washington University, Washington, DC, May 18, 2011

Lichtenberg, Erik, Lead Discussant for Conservation Policies in the 2008 Farm Bill and Climate Change and the Design of Agricultural Policy, AEI Farm Bill Workshop, American Enterprise Institute, Washington, DC, December 3, 2010

Lichtenberg, Erik, James Shortle, James Wilen, and David Zilberman, Natural Resource Economics and Conservation: Contributions of Agricultural Economics and Agricultural Economists, annual meeting of the Agricultural and Applied Economics Association, Denver, CO, presented, 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, National Center for Smart Growth Research and Education/Resources for the Future Smart Growth @ 10 Conference, College Park, MD, presented, October 4-5, 2007

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

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

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

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

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

Lichtenberg, Erik, Farmland Conversion and Economic Growth in China: Theory and Empirical Evidence, China Land Survey and Planning Institute, Ministry of Land and Resources, Beijing, China, presented, December 4, 2006

Lichtenberg, Erik, Farmland Conversion and Economic Growth in China: Theory and Empirical Evidence, International Food Policy Research Institute, Washington, DC, presented, November 7, 2006

Lichtenberg, Erik, Market-Based Farmland Preservation Programs, Lincoln Institute for Land Policy training session for officials from the China Ministry of Land and Resources, College Park, Maryland, presented, September 20, 2006

Lichtenberg, Erik, Policies for Farmland Preservation, Lincoln Institute for Land Policy training session for officials from the China Ministry of Land and Resources, College Park, Maryland, presented, September 20, 2006

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

Lichtenberg, Erik, Impacts of Urbanization and Industrial Development on Farm Productive Capacity in China: Issues and Approaches, China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, presented, June 17, 2005

Lichtenberg, Erik, Regulation of Technology in the Context of Risk Generation, Economics of Regulation of Agricultural Biotechnologies, a conference, University of Maryland Center for Agricultural and Natural Resource Policy, Giannini Foundation, Arlington, VA, sponsored by the Farm Foundation, presented, March 10-12, 2005

Lichtenberg, Erik, Policy Mechanisms for Farmland Preservation, China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, presented, July 9, 2004

Lichtenberg, Erik, Policies for Farmland Preservation, China Land Surveying and Planning Institute, Ministry of Land and Resources, Beijing, presented, July 1, 2004

Lichtenberg, Erik, Agriculture and Environment: Conceptual Frameworks for Policy, University of Helsinki, Finland, presented, 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, Adverse Health Effects, Environmental Attitudes, and Farm Operators' Pest Management Decisions, Office of Pesticide Programs, U.S. Environmental Protection Agency, Crystal City, VA, presented, January 4, 2001

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, 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, Universita' di Verona, Verona, Italy, July 3, 1996

Lichtenberg, Erik and Tony Penn, Groundwater Policy Under Uncertainty, annual meetings of the Australian Agricultural and Natural Resource Economics Society, Australia, presented, February 10-13, 1996

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

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

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

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



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

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

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

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

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

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

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

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

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

### ***Refereed Presentations***

Adalja, Aaron, Erik Lichtenberg, and Elina T. Page, Foodborne Illness Outbreaks, Collective Reputation, and Voluntary Adoption of Industry-wide Food Safety Protocols by Fruit and Vegetable Growers, Association of Environmental and Resource Economists session at the annual meeting of the Agricultural and Applied Economics Association, Chicago, IL, July 30-August 1, 2017.

Lichtenberg, Erik, Additionality in Conservation Cost Sharing, Association of Environmental and Resource Economists Annual Summer Conference, Pittsburgh, PA, May 31-June 2, 2017.

Fleming, Patrick, Erik Lichtenberg, and David A. Newburn, Targeting Agricultural Cost Sharing Payments for Nutrient Abatement in the Chesapeake Bay Watershed, Association of Environmental and Resource Economists Annual Summer Conference, Pittsburgh, PA, May 31-June 2, 2017.

Adalja, Aaron, Erik Lichtenberg, and Elina T. Page, Foodborne Illness Outbreaks, Collective Reputation, and Voluntary Adoption of Industry-wide Food Safety Protocols by Fruit and Vegetable Growers, Industry Studies Association Annual Conference, Washington, DC, May 24-26, 2017.

Adalja, Aaron and Erik Lichtenberg, Foodborne Illness Outbreaks, Collective Reputation, and Voluntary Adoption of Industry-wide Food Safety Protocols by Fruit and Vegetable Growers, annual meeting of the Agricultural and Applied Economics Association, Boston, MA, July 31-August 2, 2016.

Fleming, Patrick, Erik Lichtenberg and David A. Newburn, Agricultural Cost Sharing and Conservation Practices for Nutrient Reduction in the Chesapeake Bay Watershed, Association of Environmental and Resource Economists Summer Conference, Breckinridge, CO, June 9-11, 2016.

Adalja, Aaron and Erik Lichtenberg, Impacts of the Food Safety Modernization Act on On-Farm Produce Safety Practices in Small and Medium Size Operations, Agricultural and Applied Economics Association Annual Meeting, San Francisco, CA, July 26-28, 2015.

Kawasaki, Kentaro and Erik Lichtenberg, Quality versus Quantity Effects of Pesticides: Joint Estimation of Quality Grade and Crop Yield, Agricultural and Applied Economics Association Annual Meeting, San Francisco, CA, July 26-28, 2015.

Fleming, Patrick, Erik Lichtenberg and David A. Newburn, Agricultural Cost Sharing and Conservation Practices for Nutrient Reduction in the Chesapeake Bay Watershed, Agricultural and Applied Economics Association Annual Meeting, San Francisco, CA, July 26-28, 2015.

Lichtenberg, Erik and Elina Tselepidakis, Prevalence and Cost of On-Farm Produce Safety Measures in the Mid-Atlantic, annual meeting of the Agricultural and Applied Economics Association, Minneapolis, MN, selected paper presented, July 27-29, 2014.

Majsztrik, J., M. Saavoss, and E. Lichtenberg, How much are ornamental growers willing to pay for irrigation technology?, American Society for Horticultural Science Annual Conference, Orlando, FL, July 27-31, 2014.

Lichtenberg, Erik, Optimal Investment in Precision Irrigation Systems: A Dynamic Intraseasonal Approach, annual meeting of the Agricultural and Applied Economics Association, Washington, DC, selected paper presented, August 4-6, 2013.

Feng, Juan, Erik Lichtenberg, and Chengri Ding, Balancing Act: Economic Incentives, Administrative Restrictions, and Urban Land Expansion in China, annual meeting of the Agricultural and Applied Economics Association, Washington, DC, selected paper presented, August 4-6, 2013.

Thomas, Paul, Matthew Chappell, John M. Ruter, Erik Lichtenberg, and Marc van Iersel, Wireless Sensor Networks for Automated Irrigation Control in Container Nurseries: Implementation and Economic Impact, American Society for Horticultural Science 2013 Annual Conference, Palm Desert, CA, July 22-25, 2013.

Majsztzik, John, Erik Lichtenberg, Monica Saavedra, and John Lea-Cox, Water, Irrigation Costs and the Benefits from Sensor Networks: Results from a National Survey of Ornamental Growers, American Society for Horticultural Science 2013 Annual Conference, Palm Desert, CA, July 22-25, 2013.

Majsztzik, John, Erik Lichtenberg, and Monica Saavedra, The Costs and Benefits of Sensor Networks for a Cut Flower Greenhouse Operation, American Society for Horticultural Science 2013 Annual Conference, Palm Desert, CA, July 22-25, 2013.

Majsztzik, 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 Majsztzik, Paul Thomas, John Ruter, and Sheryl Wells, Benefits of Precision Irrigation of *Gardenia augusta* "Heaven Scent"™: 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, annual meeting of the Agricultural and Applied Economics Association, Pittsburgh, PA, selected paper presented, July 24-26, 2011.

Lichtenberg, Erik and Lars J. Olson, Risk Factors for Invasive Species Introductions: Theory and Empirical Evidence, annual meeting of the Agricultural and Applied Economics Association, Denver, CO, selected paper presented, July 25-27, 2010.

Lichtenberg, Erik and Lars J. Olson, Risk Factors for Invasive Species Introductions: Theory and Empirical Evidence, Fourth World Congress of Environmental and Resource Economists, Montreal, selected paper presented, June 28-July 2, 2010.

Lichtenberg, Erik and Lars J. Olson, Risk Factors for Invasive Pest Introductions in Commodity Imports, Society for Risk Analysis Annual Meeting, Baltimore, MD, December 8, 2009.

Ding, Chengri and Erik Lichtenberg, Land Leasing, Infrastructure Finance, and Economic Growth in China, Association of Collegiate Schools of Planning 50th Anniversary Conference, Crystal City, VA, October 1-4, 2009.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, Cross-Compliance versus Targeted Agri-Environmental Payments in a Heterogeneous Landscape, European Association of Agricultural Economists XII Annual Congress, Ghent, Belgium, presented, 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, mid-year meeting of the American Real Estate and Urban Economics Association, Washington, DC, presented, 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, Third World Congress of Environmental and Resource Economists, Kyoto, Japan, presented, July 3-7, 2006.

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

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

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

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

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

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

Aggarwal, Rimjhim, and Erik Lichtenberg, Environmental Regulation in Vertically Coordinated Industries, Second World Congress of Environmental and Resource Economists, Monterey, CA, June 24-27, 2002.

Lichtenberg, Erik, Tenancy and Soil Conservation in Market Equilibrium, Second World Congress of Environmental and Resource Economists, Monterey, CA, June 24-27, 2002.

Lichtenberg, Erik, Tenancy and Soil Conservation in Market Equilibrium, annual meeting of the American Agricultural Economics Association, Chicago, IL, presented, August 5-8, 2001.

Lichtenberg, Erik, and K. Linh Nguyen, Pesticide Productivity in Green Revolution Rice Production: A Case Study of Vietnam, 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, The Economics of Quality Control in Agriculture, Saskatoon Saskatchewan, December 2-4, 1999.

Aggarwal, Rimjhim, and Erik Lichtenberg, Environmental Regulation in Vertically Coordinated Industries, joint annual meeting of the Association of Environmental and Resource Economists and American Agricultural Economics Association, Nashville, TN, presented, August 8-11, 1999.

Lichtenberg, Erik and Rae Zimmerman, Attitudes of Agricultural Researchers vs. Farm Operators with Respect to Risks of Pesticide Use, annual meeting of the Society for Risk Analysis, Washington, DC, December 9, 1997.

Lichtenberg, Erik and Rae Zimmerman, Farmers' Perceptions of Pesticide Risks, international meeting of the Risk Assessment and Policy Association, Washington, DC, March 6-7, 1997.

Robin L. Graham, Erik Lichtenberg, Vernon O. Roningen, Hossein Shapouri, and Marie E. Walsh, The Economics of Biomass Production in the United States, Second Biomass Conference of the Americas, Portland, Oregon, August 21-24, 1995.

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

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

Lichtenberg, Erik, The Environmental Effects of Agricultural Commodity Programs: Comment, 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', Economic Research Service/Farm Foundation Conference on 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, Electric Power Research Institute Waste-to-Energy Working Group, Arlington, VA, May 4, 1994.

Kelly, Henry, and Erik Lichtenberg, Biomass-Based Electricity Production, First Biomass Conference of the Americas. Washington, DC, March 10, 1994.

Lichtenberg, Erik, Urban versus Agricultural Interests in Groundwater Quality, 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, Farm Size, Cost Sharing, Technical Assistance and Maryland Farmers' Use of Best Management Practices, 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, 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, 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, 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, Fifth International Conference on the Foundation and Applications of Utility, Risk and Decision Theories, Durham, NC, June 9-13, 1990.

Hanemann, Michael, Erik Lichtenberg and David Zilberman, Conservation Versus Cleanup in Agricultural Drainage Control, 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, 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, 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, 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, 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, Consortium for Research on Crop Production Systems conference, Urbana, Illinois, June 1987.

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

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

Lichtenberg, Erik and David Zilberman, Efficient Regulation of Groundwater Contamination, 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, 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, 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, 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, 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, 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, annual meeting of the American Association of Agricultural Economics, Ithaca, New York, August 1984.

Lichtenberg, Erik, The Economics of Rice Field Mosquito Control, annual meeting of the University of California Mosquito Research Committee, Berkeley, California, May 1984.

### ***Refereed Posters***

Lichtenberg, Erik, John Majsztrik and Monica Saavoss, Willingness to Pay for Sensor-Controlled Irrigation, annual meeting of the Agricultural and Applied Economics Association, Minneapolis, MN, July 27-29, 2014.

### ***Refereed Panels***

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

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.

### ***Symposia***

Dorfman, Jeffrey, David Hennessy, Erik Lichtenberg, and J. Edward Taylor, Navigating Journal Writing—Advice for New and Experienced Writers, 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 Article Writing and the Publication Process, annual meeting of the Agricultural and Applied Economics Association, Denver, CO, July 25-27, 2010.

Dorfman, Jeffrey H., Erik Lichtenberg, Paul V. Preckel, and Walter N. Thurman, Publishing in the AJAE: The Editors’ Perspective, annual meeting of the Agricultural and Applied Economics Association, Milwaukee, WI, July 28, 2009.

Lichtenberg, Erik and Rae Zimmerman, Adoption of Alternative Pest Management Practices and Pesticide Use in the Mid-Atlantic, 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, 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, Third National Symposium on Integrated Pest Management, Washington, DC, February 28-March 1, 1996.

Lichtenberg, Erik, NAPIAP: Issues in Estimating Benefits of Pesticides, Third National Symposium on Integrated Pest Management, Washington, DC, February 28-March 1, 1996.

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

### ***Workshops***

Lichtenberg, Erik, Economics of Soil Health: A Conceptual Framework, Farm Foundation/US Department of Agriculture Economics of Soil Health Workshop, Washington, DC, September 21-22, 2015.

Lichtenberg, Erik, Workshop on Food Safety Surveys, Economic Research Service, US Department of Agriculture, Washington, DC, Panelist, November 7, 2014.

Lichtenberg, Erik, Combining Economics and Science in Benefit/Cost Analysis, ERS/AAEA Post-Conference Workshop on Economic Analysis and Food Safety: The Food Safety Modernization Act, Washington, DC, August 7, 2013.

Lichtenberg, Erik and Chengri Ding, Land Value Gradients in a Growing Economy without Land Markets: The Shanghai Region, Second International Workshop on Regional, Urban, and Spatial Economics in China, Peking University, Beijing, China, June 28-29, 2013.

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 Ricardo Smith Ramirez, Slippage in Conservation Cost Sharing, 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.

Lichtenberg, Erik, What Do Risk Assessments of Agricultural Biotechnologies Need to Tell Risk Managers? A Perspective from Economics, University of California-US Department of Agriculture workshop on Microbial Pesticides and Transgenic Insects: Enhancing Regulatory Communications, Washington, DC, November 8, 2006.

Lankoski, Jussi, Erik Lichtenberg, and Markku Ollikainen, Water Quality Management with Spatial Heterogeneity, 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?, Northeast Agricultural and Resource Economics Association Workshop on Linkages between Agricultural and Conservation Policies, Portsmouth, New Hampshire, June 10-11, 2003.

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.

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

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

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?, Association of Environmental and Resource Economists Workshop on the Management of Nonpoint-Source Pollution, Lexington, KY, June 6-7, 1991.

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

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

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

### **Professional Publications**

#### **Reports and Non-Refereed Monographs**

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

Lichtenberg, Erik, Farmland Conversion and Economic Growth in China, Lincoln Institute for Land Policy, October 2007.

Lichtenberg, Erik, Impact of Uncoordinated Policies on Farmland Conversion in China, 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, Lincoln Institute for Land Policy, October 2004.

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

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

Lichtenberg, Erik, Douglas Parker and David Zilberman, Economic Impacts of Canceling Parathion Registration for Lettuce, 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, 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, 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, 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, California Public Health Foundation, Lawrence Livermore National Laboratory

Review Process - Final Report for 1985, USEPA 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, U.S. Environmental Protection Agency, draft report, Berkeley, California, June, 1984.

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

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

Lichtenberg, Erik and David Zilberman, The Economics of On-Farm Pesticide Use, U.S. Environmental Protection Agency, draft report, 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.

### **Pre-Print/Working Paper (Not Work in Progress)**

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

### **Policy Briefs**

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, Doug Parker, and Lori Lynch, Economic Analysis of Poultry Litter Supplies, Policy Analysis Report 02-02, Center for Agricultural and Natural Resource Policy, University of Maryland,

College Park, submitted to the Maryland Department of Business and Economic Development, 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.

### **Other**

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.

### **Book Reviews, Notes and Other Contributions**

#### **Book Reviews**

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

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.

### **Other**

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

### **Sponsored Research**

Lichtenberg, Erik (PI), Foodborne Illness Outbreaks, Collective Reputation, and Voluntary Adoption of Industry-wide Food Safety Protocols by Fruit and Vegetable Growers, Economic Research Service, US Department of Agriculture, August 4, 2016-September 30, 2017, \$25,000.

Lichtenberg, Erik (co-investigator with John Lea-Cox), RFID for Nursery and Greenhouse Cost of Production, Logistics and Decision Support, Horticulture Research Institute (subcontract from Michigan State University), July 1, 2016-June 30, 2016, \$20,000 (total project budget \$45,000).

Lichtenberg, Erik (co-investigator with John Lea-Cox), Implementing Low-Cost Wireless Sensor Networks for Irrigation, Nutrient Management and Frost Protection of Strawberry, National Strawberry Sustainability Initiative, University of Arkansas, July 1, 2014-June 30, 2015, \$19,959 (project director John Lea-Cox, total project budget \$150,000).

Lichtenberg, Erik (co-investigator), 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-August 31, 2016, \$413,485, (project director Robert Buchanan, total project budget \$7.0 million).

Lichtenberg, Erik (PI), Empirical Study of Contiguity in CREP, Economic Research Service, US Department of Agriculture, August 30, 2011-June 30, 2014, \$42,000.

Lichtenberg, Erik (PI), 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.

Lichtenberg, Erik (PI), Economics of Practice Adoption to Enhance Provision of Environmental Services from Agriculture, Economic Research Service, US Department of Agriculture, September 15, 2011-September 30, 2012, \$28,000.

Lichtenberg, Erik (co-investigator), 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, \$446,641 (project director John Lea-Cox, total project budget \$5.2 million).

Lichtenberg, Erik (co-PI with Lars Olson), 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.

Lichtenberg, Erik (co-PI with Lars Olson), 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.

Lichtenberg, Erik (PI), Impact of Uncoordinated Policies on Farmland Conversion in China, Lincoln Institute for Land Policy, 2005-2006, \$49,991.

Lichtenberg, Erik (PI), 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.

Lichtenberg, Erik (PI), The Economics of Co-Permitting, National Center for Manure and Animal Waste Management, 2001-2002, \$30,864.

Lichtenberg, Erik (Co-PI with Doug Parker), Practical Aspects of Manure Marketing, National Center for Manure and Animal Waste Management, 2001-2002, \$18,685.

Lichtenberg, Erik (Co-PI with Doug Parker), Economic Analysis of Poultry Litter Supplies, Maryland Department of Business and Economic Development, June 1, 2001-May 31, 2002, \$71,000.

Lichtenberg, Erik (Co-PI with Doug Parker), Maryland Farmers' Responses to Incentives for Best Management Practice Use, Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 2000-June 30, 2002, \$40,000.

Lichtenberg, Erik (Co-PI with Doug Parker), 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.

Lichtenberg, Erik (Co-PI with Rimjhim Aggarwal), 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.

Lichtenberg, Erik (PI), Soil Conservation on Rental Land, Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1999-June 30, 2000, \$20,000.

Lichtenberg, Erik (co-PI), National Center for Manure and Animal Waste Management, U.S. Department of Agriculture Fund for Rural America, 1998-2002, \$4,490,562, (in a 13-state, 16-institution consortium in which I serve as co-coordinator of the socioeconomic focus area with an annual budget of \$83,000).

Lichtenberg, Erik (PI), 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.

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

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

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

Lichtenberg, Erik (PI), Adoption of Best Management Practices by Maryland Farmers, Maryland Agricultural Experiment Station Competitive Grants Program, July 1, 1996-June 30, 1997, \$15,000.

Lichtenberg, Erik (PI), 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.

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

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

Lichtenberg, Erik (co-PI with Robert Chambers and James Hanson), 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.

Lichtenberg, Erik (co-PI with William O. Lamp), 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.

Lichtenberg, Erik (co-PI with K.E. McConnell), Agricultural Groundwater Contamination and Land Values: Theory and Application, U.S. Geological Survey, September 1, 1991-August 31, 1994, \$64,642.

Lichtenberg, Erik (PI), 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.



Lichtenberg, Erik (PI), 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.

Lichtenberg, Erik (PI), Managing Multiple Chronic Health Risks from Groundwater Contamination, Economic Research Service, U.S. Department of Agriculture, October 1, 1989-September 30, 1991, \$51,000.

Lichtenberg, Erik (co-PI with David Zilberman and Michael Hanneman), 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), 1987-1988.

Lichtenberg, Erik (co-PI), Economic and Financial Impacts of Proposed Standards for Drinking Water Contamination, State of California Department of Health Services, 1986-1987.

Lichtenberg, Erik (co-PI), Economic Impacts of Proposed Standards for Agricultural Drainage in the San Joaquin River Basin, State of California Water Resources Control Board, 1986-1987.

Lichtenberg, Erik (co-PI with David Zilberman and Doug Parker), Economic Impacts of Canceling the Registration of Ethyl Parathion on Almonds, Plums and Prunes, and Lettuce, U.S. Environmental Protection Agency, 1986-1987.

### **Submissions and Works in Progress**

#### **Manuscripts in Preparation**

Lichtenberg, Erik and Lars J. Olson, Risks of Invasive Pest Arrivals in Fruit and Vegetable Imports.

Adalja, Aaron and Erik Lichtenberg, Produce Growers' Costs of Complying with the Food Safety Modernization Act.

Adalja, Aaron and Erik Lichtenberg, Impacts of the Food Safety Modernization Act on On-Farm Food Safety Practices for Small and Sustainable Produce Growers.

Adalja, Aaron, Erik Lichtenberg and Elina Tselepidakis Page, Foodborne Illness Outbreaks, Collective Reputation, and Voluntary Adoption of Industry-wide Food Safety Protocols by Fruit and Vegetable Growers.

Kawasaki, Kentaro and Erik Lichtenberg, Quality versus Quantity Effects of Pesticides: Joint Estimation of Quality Grade and Crop Yield.

Lichtenberg, Erik and Chengri Ding, If I Requisition It, Will They Come to Build? Land Acquisition and Investment in China.

Lichtenberg Erik and Chengri Ding, Regional Land Value Gradients in China: The Shanghai Region.

## **Manuscripts under Review**

Fleming, Patrick, Erik Lichtenberg and David A. Newburn, Behavioral Response to Agricultural Cost Sharing and Implications for Water Quality in the Chesapeake Bay Watershed.

## **TEACHING, MENTORING AND ADVISING**

### **Courses Taught**

AREC 453, Natural Resources and Public Policy, Fall, 2016—45 enrolled, Fall, 2015—62 enrolled, Fall, 2014—52 enrolled, Fall, 2013—46 enrolled, Fall, 2012—29 enrolled, Fall, 2011—38 enrolled, Fall, 2010—33 enrolled, Fall, 2009—62 enrolled, Fall, 2008—35 enrolled, Fall, 2007—33 enrolled, Fall, 2006—24 enrolled, Fall, 2005—16 enrolled, Fall, 2004—15 enrolled, Spring, 2003—15 enrolled, Spring, 2002—12 enrolled, Spring, 2001—21 enrolled, Spring, 2000—20 enrolled, Spring, 1999 – 22 enrolled.

AREC 632/832, Agricultural Policy Analysis, Fall, 2016—3 enrolled, Fall, 2015—5 enrolled, Fall, 2104—4 enrolled, Spring, 1997—6 enrolled.

AREC/ECON 785, Advanced Economics of Natural Resources, Fall, 2013—7 enrolled, Fall, 2012—9 enrolled, Fall, 2011—8 enrolled, Fall, 2010—8 enrolled, Fall, 2009—5 enrolled, Fall, 2008—3 enrolled, Fall, 2007—11 enrolled, Fall, 2006—8 enrolled, Fall, 2005—6 enrolled, Fall, 2004—7 enrolled, Fall, 2003—7 enrolled.

AREC 689P, Applications of Microeconomics to Natural Resources and the Environment, Fall, 2003—21 enrolled.

ENTM 609E, Economics of Integrated Pest Management, Spring, 2003—8 enrolled.

AREC 753, Economics of Renewable Natural Resources, Spring, 2003—4 enrolled, Spring, 2002—6 enrolled, Spring, 2001—4 enrolled, Spring, 1999—5 enrolled, Spring, 1998—4 enrolled, Spring, 1996—10 enrolled, Spring, 1995—6 enrolled, Spring, 1993—6 enrolled, Spring, 1992—11 enrolled.

AREC 699A, Economics of Integrated Pest Management, Spring, 1997—9 enrolled.

AREC 332, Introduction to Natural Resource Policy, Spring, 1995—42 enrolled.

AREC 240, Introduction to Economics and the Environment, Spring, 1993—65 enrolled, Spring, 1992—52 enrolled.

### **Advising: Research or Clinical**

#### **Undergraduate**

Advise-5, 1997-2003—average load of 5 students.

Undergraduate advising, 1989—average load: 60 students.

**Qualifying Paper, Department of Agricultural and Resource Economics**

Tianqi Gan, 2016-2017.

Ziyan Yang, 2012-2013.

Xiaoya Dou, 2011-2012.

Elina Tselepidakis, 2010-2011, (awarded Rhona Lantin prize for best first-year paper).

Yoanna Kraus Elsin, 2009-2010.

Seth Wechsler, 2008-2009.

**Master's**

Kohei Ueda, Advisor, MS Agricultural and Resource Economics 2016.

Karen Palm, Committee Member, MS Agricultural and Resource Economics 2005.

Chad Lawley, Committee Member, MS University of Saskatchewan 2004.

Roger Claassen, Committee Member, MS Agricultural and Resource Economics 2001.

Guilherme Bastos, Advisor, MS Agricultural and Resource Economics 1999.

Ayesha Velderman, Advisor, MS Agricultural and Resource Economics 1997.

Tony Penn, Advisor, MS Agricultural and Resource Economics 1997.

Rhona S. Lantin, Advisor, MS Agricultural and Resource Economics 1992.

Lisa Shapiro, Advisor, MS Agricultural and Resource Economics 1990.

Jean-Marie Meng, Committee Member, MS Agricultural and Resource Economics 1989.

**Doctoral**

Youpei Yan, Advisor, Agricultural and Resource Economics, in progress.

Xiaoya Dou, Advisor, Agricultural and Resource Economics, in progress.

Yoanna Kraus Elson, Advisor, Agricultural and Resource Economics, in progress.

Elina Tselepidakis Page, Advisor, Agricultural and Resource Economics, in progress.

Monica Saavoss, Advisor, PhD Agricultural and Resource Economics 2016 (placement: Economic Research Service, US Department of Agriculture, Washington, DC).

Patrick Fleming, Co-Advisor, PhD Agricultural and Resource Economics 2016 (placement: Franklin and Marshall College, Lancaster, PA).

Ian Page, Committee Member, PhD Agricultural and Resource Economics 2015 (placement: FIRE Program, University of Maryland).

Seth Wechsler, Advisor, PhD Agricultural and Resource Economics 2014 (placement: Economic Research Service, US Department of Agriculture, Washington, DC).

Shinsuke Uchida, Advisor, PhD Agricultural and Resource Economics 2014 (placement: Shinshu University, Japan).

Kanishka Kacker, Committee Member, PhD Agricultural and Resource Economics 2014 (placement: World Bank, Washington, DC).

Takahiso Kiso, Committee Member, PhD Agricultural and Resource Economics 2013 (placement: University of Aberdeen).

Elisabeth Newcomb Sinha, Committee Member, PhD Agricultural and Resource Economics 2013 (placement: Food and Drug Administration, Silver Spring, MD).

Claudia Hitaj, Committee Member, PhD Agricultural and Resource Economics 2013 (placement: Economic Research Services, US Department of Agriculture, Washington, DC).

Adan Martinez, Committee Member, PhD Agricultural and Resource Economics 2013 (placement: post-doctoral researcher, ETH Zurich, Switzerland).

Mark Braza, Committee Member PhD Urban and Regional Planning 2012 (placement: US Government Accountability Office, Washington, DC).

Yi Niu, Committee Member, PhD Urban and Regional Planning 2012 (placement: Capital University of Economics and Business, Beijing, China).

Fanqing Ye, Advisor, PhD Agricultural and Resource Economics 2012 (placement: Freddie Mac).

Michele Baggio, Co-Advisor, PhD Agricultural and Resource Economics 2012 (placement: post doctoral researcher, ETH Zurich, Switzerland).

Juan Feng, Co-Advisor, PhD Agricultural and Resource Economics 2011 (placement: World Bank, Washington, DC).

Dennis Guignet, Committee Member, PhD Agricultural and Resource Economics 2011 (placement: National Center for Environmental Economics, US Environmental Protection Agency, Washington, DC).

Bingjie Hu, Committee Member, PhD Economics 2011 (placement: World Bank).

Vesela Grozeva, Committee Member, PhD Economics 2011 (placement: Ernst & Young).

Jorge Holzer, Committee Member, PhD Agricultural and Resource Economics 2010 (placement: post-doctoral researcher, Maryland Department Natural Resources/University of Maryland-Sea Grant).

Antti Iho, External Examiner, PhD University of Helsinki 2010 (placement: MTT Finland, Helsinki).

Xingshuo Zhao, Committee Member, PhD Urban and Regional Planning 2010 (placement: Ministry of Housing & Urban-Rural Development, Beijing, China).

Chad Lawley, Co-Advisor, PhD Agricultural and Resource Economics 2009 (placement: University of Manitoba, Winnipeg, Canada).

Matthew Chesnes, Committee Member, PhD Economics 2009 (placement: Federal Trade Commission, Washington, DC).

Lopa Chakraborti, Committee Member, PhD Agricultural and Resource Economics 2008 (placement: World Bank, Washington, DC).

Roger Claassen, Committee Member, PhD Agricultural and Resource Economics 2008 (placement: Economic Research Service, US Department of Agriculture, Washington DC).

Tim Fitzgerald, Committee Member, PhD Agricultural and Resource Economics 2008 (placement: Montana State University).

Xiangping Liu, Committee Member, PhD Agricultural and Resource Economics 2008 (placement, Center for Environmental & Resource Economics, North Carolina State University, Raleigh, NC).

Charles Towe, Committee Member, PhD Agricultural and Resource Economics 2007 (placement: University of Maryland, College Park).

Constant Tra, Committee Member, PhD Agricultural and Resource Economics 2007 (placement: University of Nevada-Las Vegas, NV).

Heather Klemick, Committee Member, PhD Agricultural and Resource Economics 2007 (placement: National Center for Environmental Economics, US Environmental Protection Agency, Washington, DC).

Anthony Dvaskas, Committee Member, PhD Marine/Estuarine/Environmental Sciences 2007 (placement: School of Marine and Atmospheric Sciences, Stony Brook University, NY).

Oscar Cristi, Committee Member, PhD Agricultural and Resource Economics 2006 (placement: Universidad del Desarrollo, Santiago, Chile).

Ricardo Smith-Ramirez, Advisor, PhD Agricultural and Resource Economics 2005, (Award for Best PhD Dissertation, American Agricultural Economics Association, 2006) (placement: Centro de Investigacion y Docencia Economicas, Mexico).

Conrad Choiniere, Advisor, PhD Agricultural and Resource Economics 2004 (placement: Food and Drug Administration, College Park, MD).

Sushenjit Bandyopadhyay, Committee Member, PhD Economics 2002 (placement: World Bank, Washington, DC).

Tsunehiro Otsuke, Committee Member, PhD Agricultural and Resource Economics 2001 (placement: World Bank, Washington, DC).

Edward Miller, Committee Member, PhD Economics 2000.

Khanh Thi Linh Nguyen, Advisor, PhD Agricultural and Resource Economics 2000 (placement: Internal Revenue Service, Washington, DC).

Carolyn Dimitri, Advisor, PhD Agricultural and Resource Economics 1998 (placement: Economic Research Service, US Department of Agriculture, Washington, DC).

Charles McCormick, Committee Member, PhD Economics 1997 (placement: University of Maryland).

Edward Jaenicke, Committee Member, PhD Agricultural and Resource Economics 1997 (placement: Pennsylvania State University, State College, PA).

Karen Dunn, Committee Member, PhD Economics 1996.

Amy Buss, Committee Member, PhD Agricultural and Resource Economics 1994 (placement: National Marine Fisheries Service, Silver Spring, MD).

Donald Merritt, Committee Member, PhD Marine/Estuarine/Environmental Sciences 1993 (placement: University of Maryland Center for Environmental Sciences, Solomons, MD).

John Baffes, Committee Member, PhD Agricultural and Resource Economics 1993 (placement: World Bank, Washington, DC).

### **Mentorship**

Neslihan Uler, assistant professor, 2016-present.

Dave Newburn, assistant professor, 2014-present.

Charles Towe, assistant professor, 2008-2014

Barrett Kirwan, assistant professor, 2008-2010.

Sean Sylvia, graduate student fellowship mentor, 2008-2009.

Chad Lawley, graduate student fellowship mentor, 2004-2006.

Heather Klemick, graduate student fellowship mentor, 2002-2004.

Constant Tra, graduate student fellowship mentor, 2002-2004.

### **Advising: Other than Research Direction**

Faculty advisor, Association of Agricultural and Resource Economists at College Park, 2010-present

## **SERVICE AND OUTREACH**

### **Editorships, Editorial Boards and Reviewing Activities**

#### **Editorships**

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

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

#### **Editorial Boards**

Agricultural and Resource Economics Review, 1994-1995.

#### **Reviewing Activities for Agencies and Foundations**

National Science Foundation, SEES: Interactions of Food Systems with Water and Energy Systems proposal, 2015.

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

U.S.-Israel Binational Agricultural Research and Development Fund (BARD) Competitive Grants Program, U.S. Economics Panel, 1994-1995, 2008 (Chair 1994-1995).

BEACON Center, Salisbury University, Analysis of the Potential Economic Costs and Benefits of Implementing the Phosphorus Management Tool on the Eastern Shore of Maryland, 2014.

#### **Reviewing Activities for Conferences/Professional Organizations**

Reviewer, Association of Environmental and Resource Economics Annual Meeting, 2012, 2013, 2015, 2016.

World Congress of Environmental and Resource Economists, 2014.

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

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

### **Committees, Professional & Campus Service**

#### **Campus Service - Department**

Director of Graduate Studies, Department of Agricultural and Resource Economics, 1995-1997, 2003-2004, 2015-2017.

Graduate Committee, Department of Agricultural and Resource Economics, 1992-1993, 1994-1997, 2002-2004, 2015-2017.

Promotion and Tenure Committees, Department of Agricultural and Resource Economics: David Newburn 2017-2018, Pamela Jakiela 2016-2017, Mark Jacobsen 2011-2012, Roger von Haefen 2010-2011, Anna Alberini 2012, Carol McAusland 2009, Loretta Lynch 2001, James Hanson 1993.

Faculty Search Committee, Department of Agricultural and Resource Economics, 1992-1993, 1995-1996, 1998-2000, 2002-2003, 2005-2008, 2009-2013, 2014-2015, 2016-2017.

Faculty advisor, Association of Agricultural and Resource Economists at College Park, 2010-present.

Faculty Advisory Committee, Department of Agricultural and Resource Economics, 1995-1997, 2005-2008, 2012-2015.

Qualifying Paper Committee, Department of Agricultural and Resource Economics, 2013-2014.

Qualifying Examination Committee, Department of Agricultural and Resource Economics, 1989-1990, 2002-2004.

Job Placement Committee, Department of Agricultural and Resource Economics, 2000-2006.

Library Committee, Department of Agricultural and Resource Economics, 1999-2002.

Seminar Coordinator, Department of Agricultural and Resource Economics, 1991-1992.

Undergraduate Committee, Department of Agricultural and Resource Economics, 1988-1989, 2005-2006.



## **Campus Service – College and University**

Appointments, Promotions and Tenure (APT) Committee, College of Agriculture and Natural Resources, 1998-2000, 2008-2010 (Chair, 1999-2000, 2009-2010).

Search Committee for Dean, College of Agriculture and Natural Resources, 2003-2005.

Library Committee, College of Agriculture and Natural Resources, 2000.

Faculty Excellence in Research Awards Committee, College of Agriculture and Life Sciences, 1993.

Search Committee for Associate Director of Agricultural Experiment Station, College of Agriculture and Life Sciences, 1989.

## **Other Non-University Committees, Memberships, Panels, etc.**

Fellows Selection Committee, Agricultural and Applied Economics Association, 2013-2018.

External Judging Committee, Helios Awards for Research, Staff Analysis, and Outlook, Economic Research Service, US Department of Agriculture, 2013.

Scientific Advisory Committee, Maryland Water Resources Research Center, 2000-2005.

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

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

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

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

## **External Service and Consulting**

### **Community Engagements, Local, State, National, International**

Board of Directors, Center for Agricultural and Natural Resource Policy, 1994-2014.

### **Consultancies (to local, state and federal agencies; companies; organizations)**

American Farmland Trust, Future of Sustainable Farming and Forestry in Maryland, 2013-2016.

CropLife America, Review of Draft Report to CropLife America on Impacts of EU Regulation 1107/2009, 2013.

Paley Rothman, Expert Testimony in Pesticide Data Compensation Arbitration Case, 2013.

McKenna & Long, Expert Testimony in Pesticide Data Compensation Arbitration Cases, 1997-2013.

Arent Fox Kinter Plotkin & Kahn, Expert Testimony in Pesticide Data Compensation Arbitration Cases, 2007-2012.

Lincoln Institute of Land Policy, Training on Land Use Policy for Chinese Officials, 2010.

Lewis & Harrington, Expert Testimony in Pesticide Data Compensation Arbitration Cases, 2008.

World Perspectives, Inc., Delphi Exercise Concerning the Global Environment Facility Benefits Index for Biodiversity (GBIBIO) of the Resource Allocation Framework (RAF), 2008.

World Perspectives, Inc., Evaluation of the Natural Resources Conservation Service's Allocation Formulas, 2007.

CRA International, Review of the Hilmar Supplemental Environmental Program Report, 2007.

FMC, Testimony on Pesticide Regulation, 2006.

Resources for the Future, Social Costs and Benefits of Pesticide Use, 2005-2006.

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

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Abt Associates, Impacts of Pesticide Regulation, 1997.

New York University, Acceptance and Adoption by Farmers of Pesticide Use Alternatives for Water Quality Protection, 1994-1995.

U.S. Environmental Protection Agency, Staff Support for Pesticide Users Advisory Committee, 1986-1990.

U.N. Economic Commission on Latin America and the Caribbean, Pesticide Policy and Trade Liberalization in the Western Hemisphere, 1990.

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Jellinek, Schwartz, Connolly, and Freshman, Economic Impacts of Pesticide Regulatory Decisions, 1989.

Sparks Commodities, Costs and Benefits of the South Florida Water Management District, 1989.

## **AWARDS, HONORS AND RECOGNITION**

### **Research Fellowships, Prizes and Awards**

Editor's Choice Award, Water Resources Research, 2015.

Dean Gordon Cairns Award, College of Agriculture and Natural Resources, University of Maryland, 2014.

Excellence in Research Award, College of Agriculture and Natural Resources Alumni Association, 2000 and 2012.

Article of the Year Award, Agricultural and Resource Economics Review, 2011.

Fellow, Agricultural and Applied Economics Association, 2010.

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

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

Marquis Who's Who in America, 2002-present.

Bronze Medal, University of Helsinki, 2002.

Fulbright Scholar Award, Argentina, 1998.

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