

Elena Irwin
Short Curriculum Vitae

Department of Agricultural, Environmental, and Development Economics, Ohio State University
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Professional Experience

Associate Professor, Dept. of Agricultural, Environmental and Development Economics, Ohio State University. October 2005-present.

Assistant Professor, Dept. of Agricultural, Environmental and Development Economics, Ohio State University. November 1998 - September 2005.

Courses taught: AED Econ 680: The Economics of Growth and Sprawl in America's Countryside; AED Econ 713: Public Policy and Market Regulation in Agricultural, Environmental, and Development Economics. Short courses: Land use modeling, Applied spatial econometrics, Coupled natural-human systems.

Areas of Interest: Urban and Regional Economics; Environmental Economics; Coupled Human-Natural Interactions; Land Use Modeling; Applied Spatial Econometrics and Geographic Information Systems.

Education: *University of Maryland*: College Park, MD. August 1993 – October 1998.

Ph.D., Agricultural and Resource Economics. Dissertation Title: *Do Spatial Externalities Matter? The Role of Endogenous Interactions in the Evolution of Land Use Pattern.* **Washington University**: St. Louis, MO. AB, 1988. Majors: German and History. Graduated with honors.

Selected Publications

Warren, Keith, Ciriya Jayaprakash and Elena G. Irwin (forthcoming) "The interaction of segregation and suburbanization in an agent-based model of residential location." *Environment and Planning B*.

Clark, Jill K., Ron McChesney, Darla K. Munroe, Elena G. Irwin (forthcoming). "Spatial Characteristics of Exurban Settlement Pattern in the U.S." *Landscape and Urban Planning*.

Wu, Junjie and Elena G. Irwin (2008). "Optimal land development with endogenous environmental amenities." *American Journal of Agricultural Economics*, 90(1): 232-248.

Irwin, Elena G. and Nancy E. Bockstael (2007). "The evolution of urban sprawl: Evidence of spatial heterogeneity and increasing land fragmentation." *Proceedings of the National Academy of Sciences* (PNAS). Dec 26, 2007; 104 (52): 20672-20677.

Irwin, E. and J.K. Clark (2007). "How states can mitigate the impacts of big box retail on local communities." *Journal of Regional Analysis and Policy* 37(1):53-55.

Bayoh, Isaac, Elena G. Irwin and Timothy Haab (2006). "Determinants of Residential Location Choice: How Important Are Local Public Goods in Attracting Homeowners to Central City Locations?" *Journal of Regional Science* 46(February): 97-120.

Irwin, Elena G. and Nancy E. Bockstael (2004). "Land Use Externalities, Growth Management Policies, and Urban Sprawl." *Regional Science and Urban Economics*, 34(6): 705-25.

Carrion-Flores, Carmen and Elena G. Irwin (2004). "Determinants of Residential Land Use Conversion and Sprawl at the Rural-Urban Fringe." *American Journal of Agricultural Economics*, 86(4): 889-904.

Roe, Brian, Elena G. Irwin, and Hazel A. Morrow-Jones (2004). "Estimating the Benefits of Farmland Preservation to Homeowners: Results of a Conjoint Analysis of Housing Choice." *Land Economics*, 80: 55-75.

Morrow-Jones, Hazel, Elena G. Irwin and Brian Roe (2004). "Consumer Preferences for Neotraditional Neighborhood Characteristics." *Housing Policy Debate*, 15(1): 171-202.

Irwin, Elena G., Kathleen Bell, and Jacqueline Geoghegan (2003). "Modeling and managing urban growth at the rural-urban fringe: A parcel-level model of residential land use change," *Agricultural and Resource Economics Review*, 32(1): 83-102.

Irwin, Elena G. (2002) "The Effects of Open Space on Residential Property Values," *Land Economics*, 78(4): 465-481.

Irwin, Elena G. and Nancy E. Bockstael (2002). "Interacting Agents, Spatial Externalities, and the Endogenous Evolution of Residential Land Use Pattern," *Journal of Economic Geography*, 2(1), January: 31-54.

Roe, Brian E., Elena G. Irwin, and Jeff S. Sharp, (2002). "Pigs in Space: Modeling the Spatial Structure of Hog in Traditional and Nontraditional Production Regions," *American Journal of Agricultural Economics*, 84(2): 259-78.

Irwin, Elena G. and Jacqueline Geoghegan (2001). "Theory, Data, Methods: Developing Spatially-Explicit Economic Models of Land Use Change," *Journal of Agriculture Ecosystems and Environment*, 85(1-3): 7-24.

Selected Manuscripts

Carrion-Flores, Carmen and Elena G. Irwin. "Identifying Interaction Effects among Spatially Distributed Agents: An Application to Land Use Spillovers."

Irwin, Elena G., Kathleen P. Bell, Nancy E. Bockstael, David Newburn, Mark D. Partridge, JunJie Wu. "The Economics of Urban-Rural Space." Invited paper under review, *Annual Review of Resource Economics*.

Irwin, Elena G., Ciriya Jayaprakash and Yong Chen. "A Dynamic Model of Household Location, Regional Growth and Endogenous Natural Amenities with Cross-Scale Interactions."

Irwin, Elena G., Ciriya Jayaprakash and Yong Chen. "Regional Growth and Endogenous Natural Amenities"

Selected Research Grant Funding

"Multiscale dynamics and emergent patterns in urban spatial systems," James S. McDonnell Foundation, Study of Complex Systems Program, October 2008- September 2012. PI's: Elena G. Irwin and Ciriya Jayaprakash. Amount: \$406,834.

"Designing effective land management policies for the 21st century Ohio River Basin," Ohio State University Climate-Water-Carbon Initiative, July 2009-September 2013. PI's: Charles Goebel, Elena G. Irwin, Richard Moore, Robyn Wilson. Amount: \$1.3 million.

"Using Surveys, Experiments and Agent-based Models to Better Understand Recreation and Tourism Decision in the Lake Erie Region." NOAA/Ohio Sea Grant, 2006-2008. PIs: Elena G. Irwin and Tim Haab. Amount: \$117,193.

"Large Lake Ecosystems: Modeling the Interactions among Human, Biological and Physical Processes." National Science Foundation Biocomplexity Program, 2004-2008. PI: David Culver. Co-PI's: Elena Irwin, Alan Randall, Jeff Reutter. Amount: \$1.4 million.

"The Influence of Water Quality and Lake Amenities on the Demand for Residential Development around Lake Erie." Ohio Sea Grant, 2004-2006. PI's: Elena Irwin and Tim Haab. Amount: \$107,067.

Students Advised: Carmon Carrion, MS (2001); Isaac Bayoh, MS (2001); Erdogan Ozturk, PhD (2003); Rocio Moreno, MS (2004); Takeshi Mitra, MS (2005); Shihomi Ara, PhD student (2007); Mauricia John, MS student (2007); Current students: Isaac Bayoh, (PhD student), Yong Chen,(PhD student), Hyun Jin Cho (PhD), Tripti Uprety (PhD), Chang Wang (PhD), Doug Wrenn (PhD).