

Curriculum Vitae (May 2008)

JOSHUA M. DUKE

Professor of Food and Resource Economics

Professor of Legal Studies

Professor of Economics

Editor, Agricultural and Resource Economics Review

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RESEARCH INTERESTS

Land Use, Natural Resource and Environmental Economics, Law and Economics, Property Rights

PROGRAMS OF FUNDED RESEARCH

Evaluation of Farmland Retention Programs, Analysis of Land Use Policy, Effect of Land Use on Environmental Outcomes

PROFESSIONAL APPOINTMENTS

Professor of Food and Resource Economics; Professor of Economics; Professor of Legal Studies; 2008–
Assoc. Prof. of Economics (Joint Appt.), 2006–08

Assoc. Prof. of Food and Resource Economics, 2004–08; Asst Prof., 1998–04

Assoc. Prof. of Legal Studies (Secondary Appt.), 2004–08; Asst Prof., 2002–04; Affiliated Fac., 2000–02

Teaching Asst, Dept. of Econ., Univ. of Wisconsin-Madison, 1998

Research Asst, Dept. of Agric. and Applied Econ., Univ. of Wisconsin-Madison, 1994–98

EDUCATION

Ph.D., Agricultural and Applied Econ., minor in Law, Univ. of Wisconsin-Madison, 1998

M.S., Public Policy Analysis, Univ. of Rochester, 1994

B.A., History and Political Science, Univ. of Vermont, 1992

HONORS AND AWARDS

1. Editor (with Titus O. Awokuse), *Agricultural and Resource Economics Review*, 2007 – 10
2. Recognition of Outstanding Service, Northeastern Agric. and Res. Econ. Assoc., 2007
3. Editorial Board, *Land Economics*, 2007 – 09
4. Faculty Affiliate, Center for Critical Zone Research, University of Delaware, 2007 –
5. Chair's Award for Academic Excellence (outstanding research and instructional impact), Dept. of Food and Res. Econ., Univ. of Del.
6. New Castle County Farmland Advisory Committee, Del., Appointed by County Executive
7. Executive Board Member (elected), Northeastern Agric. and Res. Econ. Assoc.
8. Faculty Advisory Board of the Center for Teaching Effectiveness, Univ. of Del.
9. Who's Who in Agriculture Higher Education
10. Visiting Associate Professor (elected), Dept. of Law, Faculty of Econ. Manage., Slovak Agric. Univ.
11. Fellow, Institute for Transforming Undergraduate Education, Univ. of Del.
12. Doctoral Dissertation Fellowship, Lincoln Institute for Land Policy, Cambridge, Mass.
13. Phi Beta Kappa, *Cum laude* graduate, Departmental Honors, Political Science, Univ. of Vermont
14. Phi Alpha Theta, Univ. of Vermont, incl. Chapter President, Chapter Vice-President

REFEREED JOURNAL ARTICLES AND LAW REVIEW ARTICLES

1. Johnston, Robert J. and Joshua M. Duke. Willingness to pay for land preservation across states and jurisdictional scale: Implications for benefit transfer. *Land Economics* (forthcoming)
2. Johnston, Robert J. and Joshua M. Duke. Benefit transfer equivalence tests with non-normal distributions. *Environmental and Resource Economics* 41:1-23.
3. Johnston, Robert J. and Joshua M. Duke. 2007. Willingness to pay for agricultural land preservation and policy process attributes: Does the method matter? *American Journal of Agricultural Economics* 89(4):1098-1115
4. Duke, Joshua M. and Lori Lynch. 2007. Gauging support for innovative farmland preservation techniques. *Policy Sciences* 40:123-55
5. Borchers, Allison M., Joshua M. Duke, and George R. Parsons. 2007. Does willingness to pay for green energy differ by source? *Energy Policy* 35:3327-34
6. Duke, Joshua M. and Lori Lynch. 2006. Four classes of farmland retention techniques: Comparative evaluation and property rights implications. *Land Economics* 82(2):189-213
7. Awokuse, Titus O. and Joshua M. Duke. 2006. The causal structure of land price determinants. *Canadian Journal of Agricultural Economics* 54(2):227-45
8. Aull-Hyde, Rhonda, Sevgi Erdogan, and Joshua M. Duke. 2006. An experiment on the consistency of aggregated comparison matrices in AHP. *European Journal of Operational Research* 171:290-95
9. Malcolm⁺, Scott A., Joshua M. Duke⁺, and John Mackenzie. 2005. Valuing rights of first refusal for farmland preservation policy. *Applied Economics Letters* 12:285-88 (⁺senior authorship)
10. Duke, Joshua M. 2004. Participation in agricultural land preservation programs: Parcel quality and a complex policy environment. *Agricultural and Resource Economics Review* 33(1):34-49
11. Duke, Joshua M. and Thomas W. Ilvento. 2004. A conjoint analysis of public preferences for agricultural land preservation. *Agricultural and Resource Economics Review* 33(2):209-19
12. Duke, Joshua M. and Robert Ehemann. 2004. An application of water scarcity pricing with varying threshold, elasticity, and deficit. *Journal of Soil and Water Conservation* 59(2):59-65
13. Duke, Joshua M. 2004. Institutions and land-use conflicts: Harm, dispute processing, and transactions. *Journal of Economic Issues* 38(1):227-52
14. Duke, Joshua M., Eleonóra Marišová, Anna Bandlerová, and Jana Slovinska. 2004. Price repression in the Slovak agricultural land market. *Land Use Policy* 21(1):59-69
15. Duke, Joshua M. and Kristen A. Sentoff. 2003. Managing isolated wetlands after *Solid Waste and Tahoe*: The case of Delaware. *Journal of Land Use and Environmental Law* 18(2):355-76
16. Duke, Joshua M. and Laura A. Csoboth. 2003. Increased scientific capacity and endangered species management: Lessons from the red wolf conflict. *Drake Journal of Agricultural Law* 8(3):539-90
17. Duke, Joshua M. and Ryan P. Jost. 2003. Promoting mediation in property rights conflicts. *Land Economics* 79(1):29-37
18. Duke, Joshua M. and Scott A. Malcolm. 2003. Legal risk in agriculture: Right-to-farm laws and institutional change. *Agricultural Systems* 75(2-3):295-303
19. Duke, Joshua M. 2003. A web-based interface for student peer review, problem-based learning, and peer pressure. *Journal of Natural Resources and Life Sciences Education* 32:52-6
20. Duke, Joshua M., Robert W. Ehemann, and John Mackenzie. 2002. The distributional effects of water quantity management strategies: A spatial analysis. *The Review of Regional Studies* 32(1):19-35
21. Duke, Joshua M. and Rhonda A. Hyde. 2002. Identifying public preferences for land preservation using the analytic hierarchy process. *Ecological Economics* 42(1-2):131-45

Manuscripts Currently under Review

1. Aull-Hyde⁺, Rhonda and Joshua M. Duke⁺. Group choice: A comparison of three AHP aggregation procedures and the simple majority voting rule (⁺senior authorship). Revise and resubmit at *Group Decision and Negotiation*
2. Duke⁺, Joshua M. and Titus O. Awokuse⁺. Assessing the effect of bilateral collaborations on learning outcomes. Under second review at *Review of Agricultural Economics* (⁺senior authorship)
3. Johnston, Robert J. and Joshua M. Duke. Informing Farmland Preservation when Primary Research is Unavailable: The Transferability of Welfare Estimates and Selection Criteria. Revise and

resubmit at *American Journal of Agricultural Economics*

Manuscripts to Be Submitted

4. Duke, Joshua M. and Robert J. Johnston. Stated preference welfare estimates and quasi-public goods: Informing optimal provision when benefits may be capitalized.
5. Lynch, Lori and Joshua M. Duke. Economic Benefits of Farmland Preservation.

CHAPTERS, BOOK REVIEWS, PROCEEDINGS, AND POLICY BRIEFS (ALL REFEREED OR EDITOR SELECTED/INVITED)

1. Duke, Joshua M. 2008. Using Research on Farmland Amenity Values to Improve Preservation Policy. *Policy Brief*. Northeast Regional Center for Rural Development (available at: <http://www.nercrd.psu.edu/TALUC/PolicyBriefs.html>).
2. Duke, Joshua M. Private property land ownership rights in rural America. In *Encyclopedia of Rural America*, 2nd, Ed. Gary A Goreham. Forthcoming.
3. Duke, Joshua M. and Robert J. Johnston. Multifunctionality and land use policy: An application of nonmarket valuation to urban fringe farm and forest preservation, in *New Perspectives on Agri-Environmental Policies: A Multidisciplinary and Transatlantic Approach*, ed. Stephan Goetz and Floor Brouwer. Routledge. (forthcoming).
Earlier version published as an abstract and proceedings for *Conference on the Science and Education of Land Use: A Transatlantic, Multidisciplinary and Comparative Approach*. Available at: <http://www.nercrd.psu.edu/TALUC/Presentations.html>
4. Duke, Joshua M. 2003. Review of *Land Tenure and Natural Resource Management: A Comparative Study of Agrarian Communities in Asia and Africa*, edited by Keijiro Otsuka and Frank Place. *Amer. Journal of Agric. Econ.* 85(3):778-9
5. Duke, Joshua M. and Maia Tatinclaux. 2005. The problem of cups. *Problem-Based Learning Clearinghouse*, Univ. of Del.
6. Duke, Joshua M. 2002. Externalities and managing a common property resource—A problem. *Problem-Based Learning Clearinghouse*, Univ. of Del.

RESEARCH GRANTS (COMPETITIVE, EXTERNAL)

1. (Pending) Harry R. Hughes Center for Agro-Ecology, Inc., *Retaining Maryland's Working Lands through Appropriate Techniques and Combinations of Techniques*
\$67,730, L. Lynch (PI) J.M. Duke (co-PI), 2008-2009
2. (Pending) Horticultural Research Institute, *Promoting Alternatives to Invasive Plants in Three States Using the Plants for a Livable Delaware Model*
\$40,908 (\$29,388 to UD, \$11,520 cost share), S.S. Barton (PI) J.M. Duke (co-PI), A. Borchers (collaborator), 2009-2010
3. (Pending) State of Conn., Agricultural Viability Grant Projects, and Town of Lebanon, *Estimating Residents' Willingness to Pay for Farmland Preservation in Lebanon, Connecticut*
\$37,253, J.M. Duke (PI), R.J. Johnston (co-PI), 2008-09
4. USDA, ISE, *Sustainable Agriculture and Watershed Management in Developing Countries: Enhancing International Education, Research, and Extension Opportunities*.
\$123,506 (\$100,000 to UD, \$23,506 cost share), S.P. Inamdar (PI), T.O. Awokuse, J.M. Duke, D.J. Hansen, J.T. Sims (co-PIs), 2008-10.
5. USDA-ERS, *Applying Economic Experiments to Improve the Design and Implementation of Conservation Programs*
\$332,104 (\$132,601 to UD, \$93,879 to UMD, \$30,000 ERS cost share to UD, \$20,000 ERS cost share to UMD, \$36,480 UD match, \$19,144 UMD match), K. Messer, M. Weinberg (PIs), J. Duke, D. Hellerstein, N. Higgins, B. Kirwan, L. Lynch, M. Roberts (co-PIs), 2007-09
Also involved in this research project:
\$20,000 CANR Seed Grant, K. Messer (PI), J. Duke (co-PI)
6. USDA, NRCS, *Demonstrating Sust. Integration of Value-Added Manure Products into 21st Cent. Farming*
\$427,536 (\$213,768 federal funds awarded, plus matches by UD and St. Andrew's), T. Sims

- (PD), J. McGrath, S. Barton, J. Duke, S. Inamdar, J. McDermott, J. Sparks, D. Tallamy, M. Hardesty, L. Irelan (Collaborators), 2006-09
7. Delaware Water Resources Center (*J.M. Duke is PI on all*)
 \$3,500, A. Borchers (RA), S. Chatterson (Intern), *Willingness to Pay for Sustainable Agric. Practices in an Urbanizing Region*, 2007-08
 \$3,500, S. Mayer (Intern), *Benefit-Cost Analysis of Pelletized Broiler Litter in Agro. Crop Prod. & Turf Grass Mgt.*, 2007-08
 \$3,500, S.E. Hastings (co-PI), M. Loiacono (Intern), *The Impact of the Solid Waste Decision on Isolated Wetlands in Del.*, 2005-06
 \$3,500, R. Aull-Hyde (co-PI), M. Lee (Intern), *Landowner Perceptions of the Stringency of Water Quality Regulations in Del.*, 2005-06
 \$3,000, K. Sentoff (Intern), *Managing Wetlands in Delaware in a Changing Legal Environment*, 2002-03
 \$3,000, K.A. Lemon (Intern), *An Assessment of the Water Quantity Laws in Delaware*, 2001-02
 \$5,000, R.W. Ehemann (Intern), *Distributive Effects of Block Water Pricing in New Castle County*, 2000-01
 8. Del. Coastal Community Enhancement Initiative, *Preservation of Farm and Forest in Sussex County, Del.: Disseminating a Matrix to Estimate Values*
 \$29,909, J.M. Duke (PI), R.J. Johnston (co-PI), 2007
 9. State of Conn., Agricultural Viability Grant Projects, and Town of Thompson, *Estimating Residents' Willingness to Pay for Farmland Preservation in Four Connecticut Rural Communities*
 \$48,000, J.M. Duke (PI), R.J. Johnston (co-PI), 2006-07
 10. Del. Nut. Mgt. Com., *Advancing Nut. Mgt. in Del.: Accurate Nut. Budgets & Prioritized Best Mgt. Prac.*
 \$28,122, T. Sims (PI), S. Barton, G. Binford, J. Duke, E. Kee, C. Keil, G. Malone, W. Ritter, W. Saylor (co-PIs), 2006-07
 11. USDA-NRI, *Cost Effective Agricultural Land Preservation Techniques and Service Implementation*
 \$82,666, Joshua M. Duke (PD), Robert J. Johnston (co-PD), 2003-05
 12. Del. Agric. Lands Pres. Found., *Gauging Support for Innovative Farmland Pres. Techniques in Del.*
 \$10,000, Joshua M. Duke (PI) and Loretta M. Lynch (co-PI), 2003-04
 13. USDA-ERS (Cooperative Agreement), *Workshop on Linkages between Agric. and Cons. Policies*
 \$10,000, Marca Weinberg, Joshua M. Duke (PIs/Cooperators), 2002-03
 14. Northeast Regional Center for Rural Development, *Linkages Workshop*
 \$10,000, J.M. Duke, L.M. Lynch (PIs); S.K. Swallow, R.J. Johnston, J. Shortle (Co-PIs), 2003-04
 15. USDA-NRI, *Workshop: Agric. Mgt. and Cons.: Farmer Choices & Policy Eval. in a Complex Setting*
 \$10,000, J.M. Duke (PI); L.M. Lynch, R.J. Johnston, S.K. Swallow (co-PIs), 2002-03
 16. Del. Agric. Lands Pres. Found., *Farmland Preservation Techniques: Identifying New Options*
 \$6,000, Joshua M. Duke (PI), Loretta M. Lynch (co-PI), 2002-03
 17. USDA-NRI, *Satisfaction and Selection in Evaluating Purchase of Development Rights Programs*
 \$73,000, Joshua M. Duke (PI), Thomas W. Ilvento (co-PI), 2000-03
 18. Northeast Regional Center for Rural Development, *Conference Proposal—Land Use Workshop*
 \$35,000, E. Marshall (PI); J. Duke, L. Lynch, S. Swallow, R. Johnston, J. Shortle (co-PIs), 2001-02
 19. U.S. Information Agency, U.S. State Dept., *Reciprocal Educ. Exchange between the Univ. of Del. and Slovak Agric. Univ.*
 \$120,000, T.W. Ilvento, C.M. Gempesaw II (PIs); R. Bacon, J. Duke, R. Hyde (co-PIs), 1999-02
 20. USDA-NRI, *Conference Proposal—Protecting Farmland at the Fringe: Do Regulations Work?*
 \$10,000, L.W. Libby (PI); C. Abdalla, M. Altobello, J. Ayers, N. Bills, J. Duke, L. Lynch, A. Seidl, L. Smutko, A. Sokolow, G. Taylor (Collaborators), 2001-02
 21. Del. Agric. Lands Pres. Found., *Del. Agric. Lands Prog.: Purchase of Development Rights Eval.*
 \$4,800, J.M. Duke (PI), T.W. Ilvento (co-PI), 2000-01
 22. Lincoln Inst. of Land Pol., *Toward Clarity & Coherence in Land-Use Conflicts: An Analysis of the Framing Prob.*
 \$5,000, D.W. Bromley (PI), J.M. Duke (Co-PI), 1997-98