

# JUNJIE WU

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## 1. Current Positions

Emery N. Castle Chair in Resource and Rural Economics, Oregon State University  
Professor, Department of Applied Economics, Oregon State University  
Director, Center for Agricultural and Environmental Policy, Oregon State University  
Project Director, OSU-UC Davis Partnership for Agricultural Policy Research

## 2. Other Academic Affiliations

University Fellow, Resources for the Future, Washington DC  
Senior Visiting Fellow, University of Cambridge, UK  
Changjiang Visiting Professor, Renmin University of China, China  
Visiting Professor, Ocean University of China, Qingdao, China

## 3. Education

Ph.D., Agricultural Economics, University of Connecticut, USA, 1992  
Graduate Diploma, Business Economics, Yellow River University, China, 1987  
B.S., Mathematics, Henan Normal University, China, 1983

## 4. Research Areas

Optimal design of agri-environmental policy  
Spatial modeling of land use change and ecosystem services  
Agricultural production and water quality  
Rural-urban interdependency  
Causes and evolution of spatial variation in economic development

## 5. Awards and Recognition

2016: Fellow, Agricultural and Applied Economics Association  
2016: Executive Committee, China Environmental Science Association Committee for Protecting Ecological Foods and Their Habitats  
2014: Sir Frederick McMaster Fellowship, CSIRO, Adelaide, Australia  
2013: Visiting Fellowship, AGROCAMPUS OUEST, Angers, France  
2011–: Council on Food, Agricultural and Resource Economics Blue Ribbon Panel of Experts  
2010–: Northwest Power and Conservation Council Independent Economic Analysis Board  
2009–: US Environmental Protection Agency Science Advisory Board Environmental Economics Advisory Committee  
2009–: University Fellow, Resources for the Future, Washington DC  
2009–: Life Member, Clare Hall, University of Cambridge, UK  
2009: Changjiang Visiting Professorship Award, Ministry of Education, China  
2009: Outstanding Published Research Award, Western Agricultural Economics Association  
2008: F.E. Price Agricultural Research Foundation Excellence in Research Award, College of Agricultural Sciences, Oregon State University  
2008: Fulbright Scholar Award, U.S. Department of State Council for International Exchange of Scholars

- 2008: Visiting Fellowship, Clare Hall, University of Cambridge, UK
- 2007: Outstanding Published Research Award (Honorable Mention), Western Agricultural Economics Association, USA
- 2003: Outstanding Published Research Award, Western Agricultural Economics Association, USA
- 2003: Research Fellow, Rural Development Research Consortium, University of California-Berkeley
- 2002: Quality of Research Discovery Award, Agricultural and Applied Economics Association (formerly, American Agricultural Economics Association)
- 2002: Savery Award for Outstanding Young Faculty, College of Agricultural Sciences, Oregon State University
- 2002: Outstanding Journal Article Award (Honorable Mention), Canadian Agricultural Economics Society
- 2001: Membership of Gamma Sigma Delta, Honor Society of Agriculture
- 1993: Outstanding Ph.D. Dissertation Award (Honorable Mention), American Agricultural Economics Association
- 1988: Outstanding Lecturer, Yellow River University, China

## 6. Editorial Services

- 2013–: Editor, *American Journal of Agricultural Economics*
- 2012–2015: Associate Editor, *Journal of Regional Science*
- 2010–2014: Editorial Board, *Environmental Economics and Policy Studies*
- 2009–: Editorial Council, *Journal of Environmental Economics and Policy (Chinese)*
- 2007–: Editorial Council, *Land Economics*
- 2007–2014: Editorial Council, *Journal of Agricultural and Resource Economics*
- 2004–2007: Associate Editor, *American Journal of Agricultural Economics*
- 2004–2008: Editorial Council, *Journal of Environmental Economics and Management*

## 7. Professional Experience

- 2012–: Director, Center for Agricultural and Environmental Policy, Oregon State University
- 2012–: Project Director, OSU-UC Davis Partnership for Agricultural Policy Research
- 2009: Fulbright Scholar, Renmin University of China, Beijing, China
- 2008: Visiting Fellow, Clare Hall, University of Cambridge, Cambridge, UK
- 2005–: Emery N. Castle Chair in Resource and Rural Economics, Department of Applied Economics, Oregon State University
- 2003–: Professor, Department of Applied Economics, Oregon State University
- 2000–2002: Associate Professor, Department of Applied Economics, Oregon State University
- 1997–2000: Assistant Professor, Department of Agricultural and Resource Economics, Oregon State University
- 1995–1997: Associate Scientist and Manager of the Resource and Agricultural Policy System (1996-1997), Visiting Scientist (1995-1996), Center for Agricultural and Rural Development, Iowa State University, Ames, IA
- 1992–1994: Postdoctoral Research Associate, Department of Agricultural Economics, Oklahoma State University
- 1987–1988: Lecturer, Department of Economics and Business Management, Yellow River University, Zhengzhou, Henan, China
- 1983–1985: Assistant Lecturer, Department of Mathematics, Henan Normal University, Xinxong, Henan, China

## 8. Publications

- **Books**

1. Duke, J.M., and J. Wu (eds). 2014. *The Oxford Handbook of Land Economics*. Oxford, UK: Oxford University Press.
2. Wu, J. (section ed). 2013. *Resources. Volume 2 of Encyclopedia of Energy, Natural Resource, and Environmental Economics*. London, UK: Elsevier.
3. Wu, J., P. Barkley, and B. Weber (eds). 2008. *Frontiers in Resource and Rural Economics*. Washington DC: RFF Press.

- **Articles in Refereed Journals**

1. Wu, J., and J. Yu. Forthcoming. Efficiency-Equity Tradeoffs in Targeting Payments for Ecosystem Services. *American Journal of Agricultural Economics*.
2. Wu, J., B. Weber, and M. Partridge. Forthcoming. Rural-Urban Interdependency: A Framework Integrating Regional, Urban and Environmental Economic Insights. *American Journal of Agricultural Economics*.
3. Wu, J., and W. Oueslati. 2016. How Does Urbanization Affect the Economy and the Environment? Policy Challenges and Research Needs. *International Review of Environmental and Resource Economics* 10(1): 1-35.
4. Claassen, R., C. Langpap, and J. Wu. Forthcoming. Impacts of Federal Crop Insurance on Land Use and Environmental Quality. *American Journal of Agricultural Economics*.
5. Wu, J., and J. Reimer. 2016. Pollution Mobility, Productivity Disparity, and the Spatial Distribution of Polluting and Nonpolluting Firms. *Journal of Regional Science* 56: 615–634.
6. Wu, J., and Y. Chen. 2016. The Evolution of Municipal Structure. *Journal of Economic Geography* 16: 917-940.
7. Olen, B., J. Wu, and C. Langpap. 2016. Irrigation Decisions for Major West Coast Crops: Water Scarcity and Climate Determinants. *American Journal of Agricultural Economics* 98: 1–22.
8. Saito, H., and J. Wu. 2016. Agglomeration, Congestion, and Regional Disparities in U.S. Employment Growth. *Journal of Regional Science* 56: 53-71.
9. Li, M., J. Wu, and X. Deng. 2016. Land Use Change and Soil Carbon Sequestration in China: Where Does It Pay to Conserve? *Global Environmental Change*. DOI 10.1007/s10113-016-0948-9.
10. Cho, S.-H., K. Tanaka, J. Wu, R.K. Robert, and T. Kim. 2016. Effects of Nuclear Power Plant Shutdowns on Electricity Consumption and Greenhouse Gas Emissions after the Tohoku Earthquake. *Energy Economics* 55: 223–233.
11. Wu, J., W. Xu, and R. Alig. 2016. Optimal Location, Size and Budget of Open Space Conservation. *Journal of Real Estate Finance and Economics* 52: 73–97.
12. Rashford, B.S., R.M. Adams, J. Wu, R.A. Voldseth, G. Guntenspergen, B. Werner, W.C. Johnson. 2016. Impacts of Climate Change on Land-Use and Wetland Productivity in the Prairie Pothole Region of North America. *Regional Environmental Change* 16: 515-526.

13. Wu, J., and C. Langpap. 2015. The Price and Welfare Effects of Biofuel Mandates and Subsidies. *Environmental and Resource Economics* 62: 35–57.
14. Lewis, D., and J. Wu. 2014. Land-Use Patterns and Spatially Dependent Ecosystem Services: Some Microeconomic Foundations *International Review of Environmental and Resource Economics* 8: 191-223.
15. Wu, J. 2014. Public Open Space Conservation under a Budget Constraint. *Journal of Public Economics* 111: 96-101.
16. Li, M., J. Wu, and X. Deng. 2013. Identifying Drivers of Land Use Change in China: A Spatial Multinomial Logit Model Analysis. *Land Economics* 89: 632-654.
17. Ervin, D., J. Wu, M. Khanna, C. Jones, and T. Wirkkala. 2013. Motivations and Barriers to Corporate Environmental Management. *Business Strategy and the Environment* 22: 390-409.
18. Jaeger, W. K., A.J. Plantinga, H. Chang, K. Dello, G. Grant, D. Hulse, J. J. McDonnell, S. Lancaster, H. Moradkhani, A.T. Morzillo, P. Mote, A. Nolin, M. Santelmann, J. Wu. 2013. Toward a Formal Definition of Water Scarcity in Natural-human Systems. *Water Resources Research* 49: 45-6-4517.
19. Hascic, I., and Wu, J. 2012. The Cost of Land Use Regulation versus the Value of Individual Exemption: Oregon's Measures 37 and 49. *Contemporary Economic Policy* 30: 159-214.
20. Wu, J., J. Wu, X. Wang, and Z. Ma. 2012. Securing Water for Wetland Conservation: A Comparative Analysis of Policy Options to Protect a National Nature Reserve in China. *Journal of Environmental Management* 94: 102-111.
21. Langpap, C., and J. Wu. 2011. Potential Environmental Impacts of Increased Reliance on Corn-Based Bioenergy. *Environmental and Resource Economics* 49: 147-171.
22. Castle, E.N., J. Wu, and B. Weber. 2011. Rural–Urban Economic Spatial Relations: A Different Perspective. *Applied Economic Perspectives and Policy* 33: 1-26. (Featured article).
23. Wang, C., and J. Wu. 2011. Locational Amenities, Increasing Returns, and Urban Development. *Journal of Economic Geography* 11: 687-707.
24. Saito, H., M. Gopinath, and J. Wu. 2011. Heterogeneous Firms, Trade Liberalization and Agglomeration. *Canadian Journal of Economics* 44: 541-560.
25. Wu, J., M. Fisher, and U. Pascual. 2011. Urbanization and the Viability of Local Agricultural Economies. *Land Economics* 87: 109-125.
26. Wu, J. 2010. Economic Fundamentals and Urban-Suburban Disparities. *Journal of Regional Science* 50: 570-591.
27. Wu, J., and H. Lin. 2010. The Effect of the Conservation Reserve Program on Land Values. *Land Economics* 86: 1-21.
28. Wu, J. 2009. Environmental Compliance: The Good, the Bad, and the Super Green. *Journal of Environmental Management* 90: 3363-3381.
29. Lewis, D., A. Plantinga, and J. Wu. 2009. Targeting Incentives to Reduce Habitat Fragmentation *American Journal of Agricultural Economics* 91: 1080-1096.
30. Irwin, E., K.P. Bell, N.E. Bockstael, D. Newburn, M.D. Partridge, and J. Wu. 2009 The Economics of Urban-Rural Space. *Annual Review of Resource Economics* 1: 1-26.
31. Wu, J., and T.M. Wirkkala. 2009. Firms' Motivations for Environmental Overcompliance. *Review of Law and Economics* 5: 399-433.

32. Wu, J., and M. Gopinath. 2008. What Causes Spatial Variations in Economic Development in the United States? *American Journal of Agricultural Economics* 90: 392-408.
33. Wu, J. 2008. Land Use Change: Economic, Social and Environmental Impacts. *Choices*. 4th Quarter.
34. Wu, J., and E. Irwin. 2008. Optimal Land Development with Endogenous Environmental Amenities. *American Journal of Agricultural Economics* 90: 232-248.
35. Langpap, C., I. Hascic, and J. Wu. 2008. Protecting Watershed Ecosystems through Targeted Local Land Use Policies. *American Journal of Agricultural Economics* 90: 684-700.
36. Langpap, C., and J. Wu. 2008. Predicting the Effect of Land Use Policies on Wildlife Habitat Abundance. *Canadian Journal of Agricultural Economics* 56: 195-271.
37. Wu, J. 2007. How Does Suburbanization Affect Local Public Finance and Communities? *Review of Agricultural Economics* 29: 564-571.
38. Wu, J., and S.-H. Cho. 2007. The Effect of Local Land Use Regulations on Urban Development in the Western United States. *Regional Science and Urban Economics* 37: 69-86.
39. Wu, J. 2006. Environmental Amenities, Urban Sprawl, and Community Characteristics. *Journal of Environmental Economics and Management* 52: 527-547.
40. Watanabe, M., R.M. Adams, and J. Wu. 2006. The Economics of Environmental Management in a Spatially Heterogeneous River Basin. *American Journal of Agricultural Economics* 88: 617-631.
41. Segerson, K., and J. Wu. 2006. Voluntary Approaches to Nonpoint Pollution Control: Inducing First-Best Outcomes through the Use of Threats. *Journal of Environmental Economics and Management* 51: 165-184.
42. Hascic, I., and J. Wu. 2006. Land Use and Watershed Health in the United States. *Land Economics* 82: 214-239.
43. Wu, J., and K. Tanaka. 2005. Reducing Nitrogen Runoff from the Upper Mississippi River Basin to Control Hypoxia in the Gulf of Mexico: Easements or Taxes? *Marine Resource Economics* 20: 121-144.
44. Watanabe, M., R.M. Adams, J. Wu, J.P. Bolte, M.M. Cox, S.L. Johnson, W.J. Liss, W.G. Boggess, and J.L. Ebersole. 2005. Toward Efficient Riparian Restoration: Integrating Economic, Physical, and Biological Models. *Journal of Environmental Management* 75: 93-104.
45. Wu, J. 2005. Slippage Effects of the Conservation Reserve Program: Reply. *American Journal of Agricultural Economics* 87(1): 252-255.
46. Cho, S.-H., J. Wu, and R. Alig. 2005. Land Development under Regulations: A Comparison between the East and West Sides of the Cascade Range on Oregon, Washington, and California. *Review of Urban and Regional Development Studies* 17: 1-17.
47. Wu, J. 2004. Using Sciences to Improve the Economic Efficiency of Conservation Policies. *Agricultural and Resource Economics Review* 33: 18-23.
48. Tanaka, K., and J. Wu. 2004. Evaluating the Effect of Conservation Policies on Agricultural Land Use: A Site-Specific Modeling Approach. *Canadian Journal of Agricultural Economics* 52: 217-235.

49. Langpap, C., and J. Wu. 2004. Voluntary Conservation of Endangered Species: When Does No Regulatory Assurance Mean No Conservation? *Journal of Environmental Economics and Management* 47: 435-57.
50. Santelmann, M.V., D. White, K. Freemark, J.I. Nassauer, J. Eilers, K. Vache, B.J. Danielson, R.C. Corry, M.E. Clark, S. Polasky, R. Cruse, J. Sifneos, C. Coiner, J. Wu, and D. Debinski. 2004. Assessing Alternative Futures for Agriculture in Iowa, U.S.A. *Landscape Ecology* 19: 357-374.
51. Wu, J., R.M. Adams, C.L. Kling, and K. Tanaka. 2004. From Micro-Level Decisions to Landscape Changes: An Assessment of Agricultural Conservation Policies. *American Journal of Agricultural Economics* 86: 26-41.
52. Wu, J., R.M. Adams, and A.J. Plantinga. 2004. Amenities in an Urban Equilibrium Model: Residential Development in Portland, Oregon. *Land Economics* 80: 19-32.
53. Wu, J., and A.J. Plantinga. 2003. The Influence of Public Open Space Policies on Urban Spatial Structure. *Journal of Environmental Economics and Management* 46: 288-309.
54. Cho, S.-H., J. Wu, and W. Boggess. 2003. Measuring Interactions Among Urbanization, Land Development, and Public Finance. *American Journal of Agricultural Economics* 85: 988-999.
55. Wu, J., and S.-H. Cho. 2003. Estimating Households' Preferences for Environmental Amenities Using Equilibrium Models of Local Jurisdictions. *Scottish Journal of Political Economy* 50: 189-206.
56. Wu, J., K. Skelton, W.G. Boggess, and R.M. Adams. 2003. Pacific Salmon Restoration: Tradeoffs between Economic Efficiency and Political Acceptance. *Contemporary Economic Policy* 21: 78-89.
57. Plantinga, A.J., and J. Wu. 2003. Co-Benefits from Carbon Sequestration in Forests: Evaluating the Reductions in Agricultural Externalities from an Afforestation Policy in Wisconsin. *Land Economics* 79: 74-85.
58. Wu, J., and K. Skelton. 2002. Targeting Conservation Efforts in the Presence of Threshold Effects and Ecosystem Linkages. *Ecological Economics* 42: 313-331.
59. Wu, J., and R.A. Adams. 2002. Micro vs. Macro Acreage Response Models: Does Site-Specific Information Matter? *Journal of Agricultural and Resource Economics* 27:40-60.
60. Wu, J. 2001. Environmental Amenities and the Spatial Patterns of Urban Sprawl. *American Journal of Agricultural Economics* 83:691-697 (Proceedings).
61. Coiner, C., J. Wu, and S. Polasky. 2001. Economic and Environmental Implications of Alternative Landscape Designs in the Walnut Creek Watershed of Iowa. *Ecological Economics* 38: 119-139.
62. Wu, J., D. Zilberman, B.A. Babcock. 2001. Environmental and Distributional Effects of Conservation Targeting Strategies. *Journal of Environmental Economics and Management* 41: 333-350.
63. Wu, J. 2001. Optimal Weed Control Under Static and Dynamic Decision Rules. *Agricultural Economics* 25:119-130.
64. Wu, J., and R.M. Adams. 2001. Production Risk, Acreage Decisions, and Implications for Revenue Insurance Programs *Canadian Journal of Agricultural Economics* 49: 19-35.
  - a. (Reprinted in *Risk Management and the Environment: Agriculture in Perspective*, Eds. B.A. Babcock, R.W. Fraser, and J.N. Lekakis, Boston: Kluwer Academic Publishers, 2003.

65. Wu, J., and B.A. Babcock. 2001. Spatial Heterogeneity and the Choice of Instruments to Control Nonpoint Pollution. *Environmental and Resource Economics* 18: 173-192.
66. Wu, J. 2000. Slippage Effects of the Conservation Reserve Program. *American Journal of Agricultural Economics* 82: 979-992.
67. Wu, J., R.M. Adams, and W.G. Boggess. 2000. Cumulative Effects and Optimal Targeting of Conservation Efforts: Steelhead Trout Habitat Enhancement in Oregon. *American Journal of Agricultural Economics* 82: 400-413.
68. Wu, J., R.M. Adams, D. Zilberman, and B.A. Babcock. 2000. Targeting Resource Conservation Expenditures. *Choices*, Second Quarter.
69. Wu, J. 2000. Input Substitution and Pollution Control under Uncertainty and Firm Heterogeneity *Journal of Public Economic Theory* 2: 273-288.
70. Wu, J., and W.G. Boggess. 1999. The Optimal Allocation of Conservation Funds. *Journal of Environmental Economics and Management* 37: 302-321.
71. Wu, J., and B.A. Babcock. 1999. Metamodeling Potential Nitrate Water Pollution in the Central United States. *Journal of Environmental Quality* 28: 1916-1928.
72. Gopinath, M., and J. Wu. 1999. Environmental Externalities and the Optimal Level of Market Power. *American Journal of Agricultural Economics* 81: 825-833.
73. Wu, J., and B.A. Babcock. 1999. The Relative Efficiency of Voluntary vs. Mandatory Environmental Regulation. *Journal of Environmental Economics and Management* 37: 158-175.
74. Wu, J. 1999. Crop Insurance, Acreage Decisions, and Nonpoint-Source Pollution. *American Journal of Agricultural Economics* 81: 305-320.
75. Wu, J., and B.A. Babcock. 1998. The Choice of Tillage, Rotation, and Soil Testing Practices: Economic and Environmental Implications. *American Journal of Agricultural Economics* 80: 494-511.
76. Babcock, B.A., P.G. Lakshminarayan, J. Wu, and D. Zilberman. 1997. Targeting Tools for the Purchase of Environmental Amenities. *Land Economics* 73: 325-339.
77. Wu, J., D.J. Bernardo, H.P. Mapp, S. Geleta, M.L. Teague, K.B. Bradley, G.J. Sabbagh, R.L. Elliott, and J.H. Stone. 1997. An Evaluation of Nitrogen Runoff and Leaching Potential in the High Plains. *Journal of Soil and Water Conservation* 52: 73-80.
78. Wu, J., and B.A. Babcock. 1996. Contract Design for the Purchase of Environmental Goods from Agriculture. *American Journal of Agricultural Economics* 78: 935-945.
79. Babcock, B.A., P.G. Lakshminarayan, J. Wu, and D. Zilberman. 1996. The Economics of a Public Fund for Environmental Amenities: A Study of CRP Contracts. *American Journal of Agricultural Economics* 78: 961-71.
  - a. (Reprinted in *The International Library of Environmental Economics and Policy: The Economics of Land Use*, Eds. Peter J. Parks and Ian W. Hardie, Hampshire, United Kingdom: Ashgate Publish Limited, March 2003).
80. Wu, J., D.J. Bernardo, and H.P. Mapp. 1996. Integrating Economic and Physical Models for Analyzing Water Quality Impacts of Agricultural Policies in the High Plains. *Review of Agricultural Economics* 18: 353-72.
81. Wu, J., and K. Segerson. 1995. The Impact of Policies and Site Characteristics on Potential Groundwater Pollution in Wisconsin. *American Journal of Agricultural Economics* 77: 1033-47.

- a. (Reprinted in *The Economics of Agri-Environmental Policy*, Sandra S. Batie and Richard D. Horan, eds., Ashgate Publishing, 2004, pp. 351-365.
  - b. (Reprinted in *The Economics of Land Use*, Peter J. Parks and Ian W. Hardie, eds., Ashgate Publishing, 2002, pp. 71-85.)
82. Wu, J., and B.A. Babcock. 1995. Optimal Design of a Voluntary Green Payment Program under Asymmetric Information. *Journal of Agricultural & Resource Economics* 20: 316-27.
  83. Wu, J., Mark L. Teague, Harry P. Mapp, and Daniel J. Bernardo. 1995. An Empirical Analysis of the Relative Efficiency of Policy Instruments to Reduce Nitrate Water Pollution in the U.S. Southern High Plains. *Canadian Journal of Agricultural Economics* 43: 403-20.
  84. Wu, J., and B.W. Brorsen. 1995. The Impact of Government Programs and Land Characteristics on Cropping Patterns. *Canadian Journal of Agricultural Economics* 43: 87-104.
  85. Wu, J., and K. Segerson. 1995. On the Use of Aggregate Data to Evaluate Groundwater Protection Policies. *Water Resources Research* 31: 1773-80.
  86. Wu, J., H.P. Mapp, and D.J. Bernardo. 1994. A Dynamic Analysis of the Impact of Water Quality policies on Irrigation Investment and Crop Choice Decisions. *Journal of Agricultural and Applied Economics* 26: 506-25.

- ***Papers under Review***

1. Langpap, C., and J. Wu. Threshold, Pervasive Incentives, and Preemptive Conservation of Endangered Species. *Journal of Association of Environmental and Resource Economics Association* (revise and resubmit).
2. Oueslati, W., J. Salanié, and J. Wu. Urbanization and Agricultural Structural Adjustments: Some Lessons from European Cities. *Journal of Economic Geography* (revise and resubmit).
3. Wu, J., and C. Wu. Interaction Effects of Environmental Regulation and Agglomeration Economy. *Journal of Law and Economics* (submitted).
4. Wu, J., W. Oueslati, and J. Yu. Causes and Consequences of Open Space in U.S. Urban Areas. *Journal of Urban Economics* (submitted).
5. Wu, J., Y. Gong, and J. Wu. Spatial Distribution of Natural Reserves in China. *Journal of Environmental Economics and Management* (submitted).
6. Sexton, S., J. Wu, and D. Zilberman. How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence. *American Economic Review* (submitted).

- ***Chapters in Books***

1. Stone, E., J. Wu. 2014. Land Use and Municipal Profiles. In *Oxford Handbook of Land Economics*. Ed. J. Duke and J. Wu. London: Oxford University Press.
2. Xu, W., and J. Wu. 2013. Amenity-Driven Migration and the Spatial Distribution of Economic Activity. In *The Economic Value of Landscapes*. Eds. Martijn van der Heide and Wim Heijman. New York: Routledge.
3. Stone, E., and J. Wu. 2010. Targeting Payment for Ecosystem Services. In *Agriculture, Biodiversity and Markets*. Ed. S. Lockie and D. Carpenter. London: Earthscan.



4. Wu, J., M. Gopinath. 2010. Spatial Disparities in Economic Development in the United States. In *Globalization and the Rural-Urban Divide*. Ed. M. Gopinath, Soule: Soule National University Press.
  5. Wu, J., and S. Mishra. 2008. Natural Amenities, Human Capital, and Economic Growth: An Empirical Analysis. In *Frontier in Resource and Rural Economics*. Ed. J. Wu, P. Barkley, and B. Weber. Washington DC: RFF Press.
  6. Coiner, C.U., J. Wu, S. Polasky, and M. Santelmann. 2007. Economic Implications. In *From the Corn Belt to the Gulf: Societal and Environmental Implications of Alternative Agricultural Futures*. Eds. J.I. Nassauer, M.V. Santelmann, and D. Scavia. Washington, DC: Resources for the Future, 2007.
  7. Santelmann, M., D. White, K Lindsay, J. Nassauer, J. Eilers, K. Vache, B. Danielson, R. Corry, M. Clark, S. Polasky, R. Cruse, J. Sifneos, H. Rustigian, C. Coiner, J. Wu, and D. Debinski. 2007. An integrated assessment of alternative futures for Corn Belt Agriculture. In *From the Corn Belt to the Gulf: Societal and Environmental Implications of Alternative Agricultural Futures*. Eds. J. I. Nassauer, M.V. Santelmann, and D. Scavia. Washington, DC: Resources for the Future.
  8. Liss, W.J., and J. Wu. 2006. Case Study 2: Oregon: Efficient Riparian Restoration for Salmon Recovery In *Building the Scientific Basis for Green Payments*, eds. Sarah Lynch and Sandra S. Batie, World Wildlife Fund, Inc., Washington DC.
  9. Adams, M.R, J. Wu, and L.L. Houston. 2006. Changes in Crop Yields and Irrigation Demand. In *The Impact of Climate Change on Regional Systems*, Eds, J.B. Smith, and R. Mendelsohn. Edward Elgar Publishing.
  10. Wu, J. 2006. Land Use Changes and Regulations in Five Western States of the United States. In *Economics of Rural Land-Use Change*, Eds. K.P. Bell, K.J. Boyle, and J. Rubin. Burlington, VT: Ashgate Publishing Company.
  11. Langpap, C., and J. Wu. 2004. Voluntary Agreements under Uncertainty and Irreversibility. In *Voluntary Agreements in Climate Policy* Eds. A. Baranzini and P. Thalmann, Edward Elgar Publishing.
  12. Santelmann, M., K. Freemark, D. White, J. Nassauer, M. Clark, B. Danielson, J. Eilers, R. Cruse, S. Galatowitsch, S. Polasky, K. Vache, J. Wu. 2001. Applying Ecological Principles to Land-Use Decision Making in Agricultural Watersheds, In: V. Dale and R. Haeuber, Eds. *Applying Ecological Principles to Land Management*. Springer-Verlag, NY.
  13. Wu, J. 1988. Market Demand. In *Microeconomic Analysis*, eds. J. Hsiao, and Z.-M. Zhu. Beijing, China: Prospect Publishing Company.
  14. Wu, J. 1988. General Equilibrium Analysis and Resource Allocation. In *Microeconomic Analysis*, eds. J. Hsiao, and Z.-M. Zhu. Beijing, China: Prospect Publishing Company.
  15. Wu, J. 1988. Welfare Economics. In *Microeconomic Analysis*, eds. J. Hsiao, and Z.-M. Zhu. Beijing, China: Prospect Publishing Company.
- ***Policy Briefs and Other Publications***
    1. Wu, J., J. Yu, and W. Oueslati. 2016. Causes and Consequences of Open Space in U.S. Urban Areas. ENV/EPOC/WPIEEP(2016)2/FINAL. Paris, France: Organisation for Economic Co-Operation and Development (OECD).

2. Wu, J., and W. Oueslati. 2015. Land Use Patterns, Spatial Policies and the Environment. ENV/EPOC/WPIEEP(2015)1, 2015. Paris, France: Organisation for Economic Co-Operation and Development (OECD).
3. Olen, B., C. Daly, M. Halbleib, and J. Wu. 2015. What are the Major Climate Risks for Agriculture in the U.S. Pacific Northwest? OreCal Policy Brief No. 014.
4. Stone, E., J. Wu, and R. Alig. 2015. Urban Green Space and Vibrant Communities: Exploring the Linkage in the Portland-Vancouver Area. USDA Forest Service Pacific Northwest Research Station, General Technical Report PNW-GTR-905.
5. Olen, B., and J. Wu. 2014. The 2014 Farm Bill: What Are the Major Reforms and How Do They Affect Western Agriculture? OreCal Policy Brief No. 013.
6. Olen, B., and J. Wu. 2014. How do Extreme Climate Events Affect Specialty Crops and Irrigation Management? OreCal Policy Brief No. 012.
7. Wu, J. 2013. How Do Alternative Designs of Payments for Ecosystem Services Affect Different Interest Groups? OreCal Policy Brief No. 5.
8. Wu, J., and B. Weber. 2012. What would happen if the size of the Conservation Reserve Program were reduced? OreCal Policy Brief No. 2.
9. Wu, J., and B. Weber. 2012. Implications of a Reduced Conservation Reserve Program. In *The Conservation Crossroads in Agriculture: Insight from Leading Economists*. The Council on Food, Agriculture and Natural Resources.
10. Wu, J. 2008. Land Use Changes: Economic, Social and Environmental Impacts. U.S. Farm Foundation Policy Brief.
11. Babcock, A.B., T. Campbell, P. Gassman, T.M. Hurley, P. Mitchell, T. Otake, M. Siemers, J.J. Wu. 1998. *Resource and Agricultural Policy System 1997: Agricultural and Environmental Outlook*. Ames, Iowa: Center for Agricultural and Rural Development, Iowa State University.
12. Johnson, S.R., P.G. Lakshminarayan, P. Gassman, M. Siemers, T. Otake, J. Opsomer, B.A. Babcock, T. Campbell, J. Wu, P. Mitchell, T. Bishop, and A. Carriquiry. 1996. *Resource and Agricultural Policy System 1996: Agricultural and Environmental Outlook*. Ames, Iowa: Center for Agricultural and Rural Development, Iowa State University.
13. Wu, J., W.G. Boggess, and R.A. Adams. 2000. Limited Information and Optimal Targeting of Public Spending for Salmon Recovery. In *Proceedings of the Portland State University Salmon Symposium*, Portland, Oregon.
14. Gassman, P.W., J. Wu, P. Mitchell, B.A. Babcock, T.M. Hurley, and S.W. Chung. 1998. Impact of U.S. Agricultural Policy on Regional Nitrogen Losses. In *Proceedings of the 3<sup>rd</sup> International Conference on Diffuse Pollution (Poster Papers)*, 31 Aug. - 4 Sept., 1998. Edinburgh, Scotland. International Association of Water Quality, London, England. pp. 115-122.

- **Published Abstracts**

1. Wu, J., D. Zilberman, and B.A. Babcock. Environmental and Distributional Impacts of Conservation Targeting Strategies. *American Journal of Agricultural Economics* 81(December 1999).
2. Boggess, W., J. Wu, and R.M. Adams. Threshold Effects and Optimal Targeting of Conservation Efforts: The Case of Salmon Habitat Enhancement in Oregon. *American Journal of Agricultural Economics* 81(December 1999).

3. Wu, J., and B.A. Babcock. The Relative Efficiency of Voluntary vs. Mandatory Environmental Regulations. *American Journal of Agricultural Economics* 80(December 1998).
  4. Babcock, B.A., T. Hurley, and J. Wu. The Environmental Effects of Freedom to Farm. *American Journal of Agricultural Economics* 80(December 1998).
  5. Wu, J., and B.A. Babcock. Optimal Design of a Voluntary Green Payment Program under Asymmetric Information. *American Journal of Agricultural Economics* 77(December 1995).
  6. Wu, J., and S. Liu. The Impacts of Considering Weed Seed Dynamics on Herbicide Use and Farm Income. *American Journal of Agricultural Economics* 77(December 1995).
  7. Lakshminarayan, P.G., B.A. Babcock, and J. Wu. Targeted Renewal of Conservation Reserve Program Contracts. Abstract, *American Journal of Agricultural Economics* 77(December 1995).
  8. Wu, J., and Others. Water Pollution Potential From Fertilizer Nitrogen in the High Plains. *American Journal of Agricultural Economics* 76(December 1994).
  9. Segerson, K., and J. Wu. Aggregation Bias and the Value of Site-Specific Information. *American Journal of Agricultural Economics* 74(December 1992).
- ***Technical Bulletins, Working Papers, and Project Reports***
    1. Sexton, S., J. Wu, and D. Zilberman. How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence. Center for Energy and Environmental Economics, University of California, Berkeley, Working Paper Series, *E<sup>3</sup>* WP-034, February 2012.
    2. Wu, J., D. Zilberman, and B.A. Babcock. Environmental and Distributional Effect of Conservation Targeting Strategy. CARD Working Paper 99-WP 230, November 2000.
    3. Wu, J. The Resource and Agricultural Policy System: Upgrade and Documentation. CARD Technical Report, 2000.
    4. Wu, J., and B.A. Babcock. Spatial Heterogeneity and the Choice of Instruments to Control Nonpoint Pollution. CARD Working Paper 96-WP 164, September 1996.
    5. Wu, J., and B.A. Babcock. The Choice of Tillage, Rotation, and Soil Testing Practices: Economic and Environmental Implications. CARD Working Paper 96-WP 161, July 1996.
    6. Wu, J., P.G. Lakshminarayan, and B.A. Babcock. Impacts of Agricultural Practices and Policies on Potential Nitrate Water Pollution in the Midwest and Northern Plains of the United States. CARD Working Paper 96-WP148, February 1996.
    7. Wu, J., and B.A. Babcock. Optimal Design of a Voluntary Green Payment Program under Asymmetric Information. CARD Working Paper 95-WP131, February 1995.
    8. Babcock, B.A., P. G. Lakshminarayan, and J. Wu. Economic, Environmental, and Fiscal Impacts of a Targeted Renewal of Conservation Reserve Program Contracts. CARD Working Paper 95-WP129, February 1995.
    9. Babcock, B.A., P.G. Lakshminarayan, and J. Wu. Renewing CRP: Results from a Study of Alternative Targeting Criteria. CARD Briefing Paper 95-BP6, February 1995.
    10. Bernardo, D.J. H.P. Mapp, R.L. Elliott, and J.H. Stone, S. Geleta, M.L. Teague, K.B. Bradley, G.J. Sabbagh, and J.J. Wu. Agricultural Practices and Groundwater Quality in the High Plains: Impacts of State, Regional and National Policies. Final Report submitted to the U.S. Geological Survey, Department of Interior. USGS project No. 14-08-0001-G2082. May 1994.

11. Segerson, K., and J. Wu. Aggregation Bias and The Value of Site-Specific Information. Project Report submitted to U.S. Department of Agriculture, Economic Research Service under Cooperative Agreement No. 58-39em-9-80068, April 1993.

## **9. Keynotes and Invited Seminars and Presentations**

- ***Keynotes***

1. “Some Preliminary Thoughts on Protecting Chinese Eco-Foods and Their Habitats.” The Launching Meeting of China Environmental Science Association Committee for Protecting Ecological Foods and Their Habitat, Beijing, China. September 11, 2016.
2. “Land as a Renewed Focus in Economics.” Keynote Address, the 7th Annual Conference of the French Society of Rural Economy, Angers, France. December 12-13, 2013.
3. “Environmental Amenities, Land Use Policies and Urban Spatial Structure.” Keynote Address, the 1<sup>st</sup> International Conference on Landscape Economics, Vienna, Austria. July 3-5, 2009.
4. “Targeting Payments for Ecosystem Services.” Keynote Address, the 10<sup>th</sup> Annual BIOECON Conference on ‘The Effectiveness and efficiency of biodiversity conservation instruments’, Sidney Sussex College, Cambridge, UK. September 28-30, 2008.
5. “Using Sciences to Improve the Economic Efficiency of Conservation Policies.” Keynote, Northeastern Agricultural Economics Association Annual Meeting, Portsmouth, RI. June 8-11, 2003.

- ***Invited Seminars and Presentations***

6. “Preemptive Conservation of Endangered Species.” Renmin University of China, Beijing, China. September 14, 2016.
7. “The Effect of Urbanization on Economic Growth and Ecosystems” Renmin University of China, Beijing, China. September 19, 2016.
8. “A Framework for Exploring Nature-Human and Rural-Urban Interdependencies: Integrating Resource, Regional, and Rural Economic Insights.” An invited paper presented in the 2016 Annual Meetings of Agricultural and Applied Economics Association, Boston, MA. July 31-August, 3, 2016. Boston.
9. “Causes and Consequences of Open Space Conservation in U.S. Urban Areas.” Michigan State University, East Lansing, MI. October 22, 2015.
10. “Causes and Consequences of Open Space Conservation in U.S. Urban Areas.” University of Nebraska, Lincoln, NE. September 11, 2015.
11. “Land Use Patterns, Spatial Policies and the Environment.” The 8<sup>th</sup> Meeting of the OECD Working Party on Integrating Environmental and Economic Policies, Paris, France. 27-28 May 2015.
12. “Open Space in U.S. Urban Areas: What Determine the Optimal Amount? How Does It Affect Communities?” The 8<sup>th</sup> Meeting of the OECD Working Party on Integrating Environmental and Economic Policies, Paris, France. 27-28 May 2015.
13. “Open Space in U.S. Urban Areas: What Determine the Optimal Amount? How Does It Affect Communities?” OECD Environment Directorate Seminar, Paris, France. 29 May 2015.

14. "Optimal Design of Pollution Control Instruments." Renmin University of China, Beijing, China. March 3, 2015.
15. "Impacts of Changes in Federal Crop Insurance Programs on Land Use and Environmental Quality." Renmin University of China, Beijing, China. March 5, 2015.
16. "Land as a Renewed Focus in Economics." Renmin University of China, Beijing, China. March 7, 2015.
17. "Land Use Patterns and Sustainable Economic Development: Some Implications for Policy." The 7<sup>th</sup> Meeting of the OECD Working Party on Integrating Environmental and Economic Policies, Paris, France. 18-19 November 2014.
18. "Land as a Renewed Focus in Economics." The CSIRO Land Use Economics and Ecosystem Services Workshop, Adelaide, Australia. January 21-22, 2014.
19. "Payment for Ecosystem Services: Economic Principles and Political Realities." The CSIRO Land Use Economics and Ecosystem Services Workshop, Adelaide, Australia. January 21-22, 2014.
20. "Integrating Economic and Biophysical Models for Policy Analysis." The CSIRO Land Use Economics and Ecosystem Services Workshop, Adelaide, Australia. January 21-22, 2014.
21. "How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence." Zhejiang University College of Public Administration, Hangzhou, China. July 24, 2012.
22. "Integrating Economic and Biophysical Models for Public Policy Analysis." Renmin University of China School of Environment and Natural Resource, Beijing, China. July 7, 2012.
23. "How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence." Chinese Academy of Science Center for Chinese Agricultural Policy, Beijing, China. July 22, 2012.
24. "How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence." Research Institute of Humanity and Nature, Kyoto, Japan. December 19, 2011.
25. "Trends in Resource and Environmental Economics Research and Education." Renmin University of China School of Environment and Natural Resource Retreat, She Xian, Anhui, China. July 2011.
26. "Targeting Incentives to Reduce Habitat Fragmentation." Kyoto University, Kyoto, Japan. July 22, 2010.
27. "Interactions between Food Prices, Energy Markets, and Biofuel Policies: A General Equilibrium Analysis." The Third Berkeley Conference on the Bioeconomy: The Current Situation of Biofuel: Economics, Policy, Technology, and Research. UC Berkeley, California. June 24-25, 2010.
28. "Targeting Incentives for to Reduce Habitat Fragmentation." The University of Connecticut, Storrs, CT. May 20, 2010.
29. "Open Space Conservation and Urban Spatial Structure." Resources for the Future, Washington, DC. April 16, 2010
30. "Optimal Design of Policies for Ecosystems Protection." Ocean University of China, Qingdao, China. June 26, 2009.

31. "Payment for Ecosystem Services: Economic Principles and Political Realities." Lanzhou University, Lanzhou, China. June 6, 2009.
32. "What Causes Spatial Variations in Economic Development in the United States?" Lanzhou University, Lanzhou, China. June 6, 2009.
33. "Payment for Ecosystem Services: Economic Principles and Political Realities." University of Tokyo, Tokyo, Japan. May 5, 2009.
34. "Payment for Ecosystem Services: Economic Principles and Political Realities." Peking University, Beijing, China. May 20, 2009.
35. "Payment for Ecosystem Services: Economic Principles and Political Realities." Kyoto University, Kyoto, Japan. May 4, 2009.
36. "Payment for Ecosystem Services: Economic Principles and Political Realities." University of Electronic Science and Technology of China, Chengdu, Chian. April 27, 2009.
37. "Payment for Ecosystem Services: Economic Principles and Political Realities." Renmin University of China, Beijing, China. April 14, 2009.
38. "Environmental Amenities and Urban Spatial Structure." University of Heidelberg, Germany, December 22, 2008.
39. "Environmental Amenities, Development Density, and Urban Spatial Structure." University of Cambridge, Cambridge, UK. November 5, 2008.
40. "What Causes Spatial Variations in Economics Development in the United States?" London School of Economics and Political Sciences, London, UK. October 25, 2008.
41. "What Impact Will Increased Commodity Prices Have on the Environment? Presented in the Conference "Rising Food and Energy Prices: US Food Policy at a Crossroads." Oregon State University, Corvallis, OR. October 2, 2008.
42. "What Causes Spatial Variations in Economics Development in the United States?" Keynote Address to the International Symposium on "Globalization and the Rural-Urban Divide." Seoul, Korea. June 30-July 2, 2008.
43. "Environmental Amenities, Wages and Urban Spatial Structure." The 2007 AAEA Pre-Conference Workshop, *Fundamentals of Spatial Economics*, Portland, Oregon. July 28, 2007.
44. "Environmental Amenities, Wages and Urban Spatial Structure." The 2007 Annual Meeting of Rural Sociological Society/NRI Rural Development Program Project Director's Meeting, Santa Clara, California. August 2, 2007.
45. "Optimal Land Development with Endogenous Environmental Amenities." Invited presentation at the Tri-Society (ASA-CSSA-SSSA)'s Symposium on Land Use Dynamics, Indianapolis, MN. November 12-16, 2006.
46. "Amenities, Infrastructure and Spatial variations in Economic Development in the United States." Presented in the International Workshop on the Role of Open Space and Green Amenities in the Residential Move from Cities." Sponsored by UMR INRA-ENESAD, Dijon, France. December 14-16, 2005.
47. "Oregon: Efficient Riparian Restoration for Salmon Recovery." Presented in the Workshop "Building the Scientific Basis for Green Payments." Sponsored by the World Wildlife Fund, Washington DC. April 14-15, 2005.

48. "The Political Economy of Conservation Targeting Strategies." Presented in the Workshop "The Political Economy of Agri-Environmental Policies in the US and the EU." Sponsored by UC Berkeley, Grass Valley, CA. May 27-28, 2005.
49. "Income Growth in Rural Areas: Where is There a Problem? - National Measures." Presented in the Workshop "Can New Products and New International and Domestic Marketing Channels Increase Rural Income? Ideas, Models, and Evidence." Sponsored by Iowa State University, Sonoma Valley, CA. June 18-21, 2005.
50. "Theory of Firm and Household Location Decisions." Presented in the Workshop "Can New Products and New International and Domestic Marketing Channels Increase Rural Income? Ideas, Models, and Evidence." Sponsored by Iowa State University, Sonoma Valley, CA. June 18-21, 2005.
51. "Environmental Amenities and Urban Spatial Structure." Department of Applied Economics, University of Minnesota, Twin Cities, MN. March 2004.
52. "Optimal Land Development with Endogenous Environmental Amenities." University of Wisconsin, Madison, Wisconsin. June 15-17, 2003.
53. Department of Agricultural, Environmental and Development Economics, Ohio State University, Columbia, OH. October 2002.
54. Lincoln Institute of Land Policy, Cambridge, MA. July 2002.
55. Department of Economics, Iowa State University, Ames, IA. March 2002.
56. Department of Agricultural and Resource Economics, University of California at Davis, CA. February 2002.
57. Department of Agricultural and Resource Economics, University of California at Berkeley, CA. April 21, 2000.
58. Department of Resource Economics and Policy, University of Maine, Orono, Main. April 23, 1999.
59. Department of Agricultural and Resource Economics, Oregon State University, Corvallis, OR. May 1987.
60. Department of Economics, Iowa State University, Ames, Iowa. April 1997.
61. Department of Agricultural Economics, Washington State University, Pullman, WA. 1986.

- **Papers Presented in Professional Meetings**

1. Preemptive Conservation of Endangered Species. The 2016 European Association of Environmental and Resource Economists, Zurich, Switzerland. June 22-25, 2016.
2. Impact of Climate on Land and Water Decisions for Irrigated Agriculture in the U.S. Pacific Northwest." Presented in the 2016 W3133 Project Annual Meeting, Portland Oregon. February 24-26, 2016. (with B. Olen (presenter)).
3. "Impacts of Water Scarcity and Climate on Land Use for Irrigated Agriculture in the U.S. West Coast." Presented in the 2015 Annual Meetings of the Agricultural and Applied Economics Association, San Francisco, CA. July 26-29, 2015. (with B. Olen (presenter)).
4. "Impacts of Changes in Federal Crop Insurance Programs on Land Use and Environmental Quality." Presented in the Symposium on Crop Insurance and the 2014 Farm Bill: Implementing Change in U.S. Agricultural Policy, Louisville, Kentucky. October 8-9, 2014.

5. "Environmental Conservation in the US: Policy, Economics and Room for Improvement." Presented in Agricultural Outlook Forum: The Changing Face of Agriculture. Arlington, Virginia. February 20-21, 2014. (with S. Capalbo (presenter), and B. Olen).
6. "The 2014 Farm Bill: Potential Impacts in Oregon." Farm Bill Briefing for Congressional Staff Food Innovation Center, Portland, Oregon. July 31, 2014.
7. "The Conservation Reserve Program: Achievements to Date and Challenges Ahead." Presented in the Conference "The Farm Bill and Western Agriculture," UC Davis Conference Center, Davis, CA. May 14, 2013.
8. "Agglomeration, Environmental Regulation and Plant's Location Decisions." Presented in the 2012 AERE Summer Conference in Asheville, NC. June 3-5, 2012. (with C. Wu (presenter)).
9. "Crop-Specific Modeling, Irrigation Technology Choice, Water Demand, Asset Heterogeneity, Climate, Water Scarcity." Presented in the 2012 Agricultural and Applied Economics Association annual meetings, Seattle, WA. August 12-14, 2012. (With B. Olen (presenter)).
10. "Impacts on Greenhouse Gas Emissions from Population Migration and Substitution of Energy Sources Resulting from the Tohoku Earthquake." A poster presented in the 2012 Agricultural and Applied Economics Association annual meetings, Seattle, WA. August 12-14, 2012. (with S.-H. Cho, K. Tanaka, M. Chadourne, R. K. Roberts, S. G. Kim).
11. "Unintended Effects of Urbanization in China: Land Use Spillovers and Soil Carbon Loss." Presented in the 2011 AERE Summer Conference in Seattle, WA. June 9-10, 2011. (with M. Li (presenter)).
12. "How High Gas Prices Triggered the Housing Crisis: Theory and Empirical Evidence." Presented in the 2011 AERE Summer Conference in Seattle, WA. June 9-10, 2011. (with S. Sexton (presenter) and D. Zilberman).
13. "Voting with Your Feet: Community Characteristics and Household Locational Choice." Presented in the 2011 AERE Summer Conference in Seattle, WA. June 9-10, 2011. (with N. Stone (presenter)).
14. "Interactions between Food Prices, Energy Markets, and Biofuel Policies: A General Equilibrium Analysis." Selected paper presented in the 2010 Agricultural and Applied Economics Association annual meetings, Denver, CO. July 25-27, 2010.
15. "Land use and water quality in Lake Biwa, Japan." Presented in the 2010 Annual Meetings of WEAI, Portland Oregon. June 30-July 2, 2010. (with K. Tanaka (presenter)).
16. "Interactions between Food Prices, Energy Markets, and Biofuel Policies: A General Equilibrium Analysis." Presented in the 2010 World Congress of Environmental and Resource Economists, Montreal, Canada. June 28-July 2, 2010.
17. "Open Space Conservation and Urban Socioeconomic Landscapes." Selected paper presented in the 2009 American Agricultural Economics Association (AAEA) annual meetings, Milwaukee, WI. July 26-28, 2009. (with W. Xu (presenter), and R. Alig).
18. "Wildland Fire Hazard, Land Conservation, and Urban Development Patterns." Selected paper presented in the 2009 American Agricultural Economics Association annual meetings, Milwaukee, WI. July 26-28, 2009. (with W. Xu (presenter)).



19. "An Empirical Analysis of Land Use Change and Soil Carbon Sequestration Cost in China." Selected paper presented in the 2009 American Agricultural Economics Association annual meetings, Milwaukee, WI, July 26-28, 2009 (with M. Li (presenter)).
20. "Targeting Incentives to Reduce Habitat Fragmentation." The 9<sup>th</sup> Annual BIOECON Conference on Economics and Institutions for Biodiversity Conservation. Kings College Cambridge, UK. 19-21 September 2007.
21. "Environmental Amenities, Wages and Urban Spatial Structure." Poster presentation, NRI Rural Development Program Project Director's Meeting. Santa Clara, CA. August 2, 2007.
22. "How Does Suburbanization Affect Local Public Finance and Communities?" Principal paper presented at the annual meeting of Allied Social Sciences Association, Chicago, IL. January 2007.
23. "How Do the Location Decisions of Firms and Households Affect Rural Income in America?" Selected paper presented in the 2005 American Agricultural Economics Association (AAEA) annual meeting, Providence, Rhode Island. July 23-27, 2005.
24. "Conservation Policy and Land Values: The Conservation Reserve Program." Selected paper presented in the 2005 American Agricultural Economics Association (AAEA) annual meeting, Providence, Rhode Island. July 23-27, 2005.
25. "Optimal Landscape Conservation with Habitat Fragmentation Effects." Selected paper presented in the 2005 American Agricultural Economics Association annual meeting, Providence, Rhode Island. July 23-27, 2005.
26. "Urban Sprawl and Municipal Structure." Selected paper presented in the annual meeting of the American Agricultural Economics Association, Montreal, Canada. July 27-30, 2003.
27. "Overcoming the Technical Barriers to Performance-based Agricultural/Environmental Programs." Organized Symposium presented in the 2003 AAEA annual meeting, Montreal, Canada. July 27-30, 2003.
28. "The Economics of Environmental Management in a Spatially Heterogeneous River Basin." Selected paper presented in the 2003 American Agricultural Economics Association annual meeting, Montreal, Canada. July 27-30, 2003.
29. "Urban Sprawl and Obesity." Selected paper presented in the 2003 AAEA annual meeting, Montreal, Canada. July 27-30, 2003.
30. "Amenities in an Urban Equilibrium Model: Residential Development in Portland, Oregon." Selected paper presented in the 2003 AAEA annual meeting, Montreal, Canada. July 27-30, 2003.
31. "Rural Amenities and Urban Sprawl." Presented in the session "Issues in the Provision of Rural Amenities" in the 76<sup>th</sup> Annual WEA International Conference, San Francisco, CA. July 4-8, 2001.
32. "Open Space Policies and Urban Spatial Structure." Presented in the World Congress of Environmental and Resource Economists, Monterey, CA. June 23-27, 2002.
33. "Voluntary Conservation of Endangered Species under Uncertainty and Irreversibility." Presented in the World Congress of Environmental and Resource Economists, Monterey, CA. June 23-27, 2002.
34. "Urbanization under Uncertainty and Government Regulations." Presented in the 2002 AAEA annual meeting, Long Island, CA. July 2002.

35. "The Political Economy of Pacific Salmon Habitat Restoration." Presented in the session "Issues in the Provision of Rural Amenities" in the 76<sup>th</sup> Annual WEA International Conference, San Francisco, CA. July 4-8, 2001.
36. "Land Development and Endogenous Regulations" selected paper, Western Agricultural Economics Association meeting, Logan, UT. July 8-11, 2001.
37. "Interaction among Residential Development, Land Use Regulations, and Public Finance: An Econometric Analysis" selected paper, American Agricultural Economics Association meeting, Chicago, IL. August 5-8, 2001.
38. "The Effect of Uncertainty and Land Use Regulations on Urbanization and Farmland Loss." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Tampa, Florida. July 30-August 2, 2000.
39. "Economic and Environmental Implications of Alternative Landscape Designs in the Walnut Creek Watershed of Iowa" Selected Poster, Presented at the Annual Meeting of the American Agricultural Economics Association, Tampa, Florida. July 30-August 2, 2000.
40. "Environmental and Distributional Impacts of Conservation Targeting Strategies." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Nashville, Tennessee. August 8-11, 1999.
41. "Threshold Effects and Optimal Targeting of Conservation Efforts: Salmon Habitat Enhancement in Oregon." Selected Paper, presented at the Annual Meeting of the American Agricultural Economics Association, Nashville, Tennessee. August 8-11, 1999.
42. "Economic Implications of Alternative Landscape Designs in the Walnut Creek Watershed of Iowa." Paper presented at the IALE World Congress 1999.
43. "The Relative Efficiency of Voluntary vs. Mandatory Environmental Regulations." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah. August 2-5, 1998.
44. "The Environmental Effects of Freedom to Farm." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Salt Lake City, Utah. August 2-5, 1998.
45. "Optimal Design of a Voluntary "Green Payment" Program under Asymmetric Information." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana. August 6-9, 1995.
46. "The Impacts of Considering Weed Seed Dynamics on Herbicide Use and Farm Income." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana. August 6-9, 1995.
47. "Targeted Renewal of Conservation Reserve Program Contracts." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Indianapolis, Indiana. August 6-9, 1995.
48. "Water Pollution Potential From Fertilizer Nitrogen in the High Plains." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, San Diego, California. August 7-10, 1994.
49. "Aggregation Bias and the Value of Site-Specific Information." Selected Paper, Presented at the Annual Meeting of the American Agricultural Economics Association, Baltimore, MD. August 8-12, 1992.

## 10. Teaching and Advising

### *Courses Taught*

AREC 351: Natural Resource Economics and Policy (undergraduate)

AREC 551: Natural Resource Economics (MS level)

AREC 652: Advanced Environmental Economics (Ph.D. level)

AREC 653: Spatial Economics of Natural Resources (Ph.D. level)

AEC 612: Advanced Microeconomic Theory II (Ph.D. level)

AEC 613: Advanced Microeconomic Theory III (Ph.D. level)

AEC 606: Second Year Research Paper (Ph.D. level)

### *Graduate Students Advising*

Served as a major professor for 18 graduate students (11 Ph.D., 7 MS) and 2 postdocs

Served as a committee member for 25 graduate students (15 Ph.D., 10 MS)

About 50% of Ph.D. students served have moved on to become a professor

## 11. Grants and Contracts

1. Sumner, D. (PI), H. Lee, B. Richard, J. Wu. "Assessing Effects of Federal Crop Insurance on Supply of Specialty Crops." Funded by the U.S. Department of Agriculture National Institute for Agriculture, \$474,132 (OSU share: \$103,147). 01/01/2016-12/31/2018.
2. Wu, J. (PI), J. Antle, S. Capalbo, C. Daly, H. Lee, and D. Sumner. "Assessing Climate-Induced Water Scarcity and Strategies to Adapt for Agriculture Systems in the U.S. Pacific Northwest." Funded by the US Department of Agriculture Office of the Chief Economist, \$99,988. 9/30/2014- 3/29/2016.
3. Wu, J. (PI), J. Alston, J. Antle, S. Capalbo, C. Daly, H. Lee, J. Reimer, D. Sumner, and B. Weber. "OSU-UC Davis Partnership for Agricultural and Resource Policy Research" Funded by the U.S. Department of Agriculture National Institute for Agriculture, \$910,260. 4/15/2012-4/14/2016.
4. Wu, J. (PI). "Urban Forests and Vibrant Communities: An Empirical Investigation of the Linkage in the Portland-Vancouver Area." Funded by the U.S. Forest Service Pacific Northwest Research Station, \$41,690. 7/1/2011-6/31/2012.
5. McDonnell, J.J. (PI), et al. "Collaborative Research WSC Category 2: Anticipating Water Scarcity and Informing Integrative Water System Response in the Pacific Northwest." Funded by the National Science Foundation CR-Water Sustainability & Climate, \$4,300,000. 10/1/2010-9/30/2015.
6. Wu, J. (PI). "An Empirical Study of the Effect of Open Space Conservation on Urban Spatial Structure in the Portland-Vancouver Area." Funded by the U.S. Department of Energy/Pacific Northwest National Laboratory, \$105,000. 1/1/2008-12/31/2010.
7. Wu, J. (PI). "Biofuel Mandates and Mass Balance: Community-Level Socioeconomic and Land Use Impacts in the Pacific Northwest." Funded by the U.S. Department of Energy/Pacific Northwest National Laboratory, \$105,000. 1/1/2008-12/31/2010.

8. Wu, J. (PI). "Developing Economic Models to Evaluate the Effect of Open Space Conservation on Economic Growth and Community Profiles: An Extension." Funded by the U.S. Forest Service Pacific Northwest Research Station, \$41,730. 7/1/2008–6/31/2010.
9. Wu, J. (PI), Christian Langpap. "The Effect of Ethanol-Driven Corn Demand on Crop Rotations and Land Use." Funded by the U.S. Department of Agriculture Economic Research Service. \$30,000. 2008–2009.
10. Wu, J. (PI). "Developing Economic Models to Evaluate the Effect of Open Space Conservation on Economic Growth and Community Profiles." Funded by the U.S. Forest Service Pacific Northwest Research Station, \$33,95. 6/1/2007–5/31/2011.
11. Wu, J. (PI), and M. Gopinath. "How Do Location Decisions of Firms and Households Affect Economic Development in Rural America?" Funded by the USDA National Research Initiatives Rural Development Program, \$167,100. 10/1/05–9/30/07.
12. Wu, J. (Co-PI), and William G. Boggess. "Frontiers in Resource and Rural Economics: Rural-Urban Interplay and Nature-Human Interactions (Conference)." Funded by the USDA National Research Initiatives Rural Development Program, \$15,100. 10/1/05–9/30/06.
13. David E. Ervin, Madhu Khanna, Patricia Koss, and J. Wu (Co-PI). "Oregon Business Decisions for Environmental Performance." Funded by the U.S. Environmental Protection Agency, \$251,973, 10/1/2003 – 9/30/2006.
14. Wu, J. (PI). "Updating the Resource and Agricultural Policy System for Analyzing the Effect of Green Payments and Improved Climate Prediction on Cropping Patterns and No3 Runoff and Leaching in the Mississippi River Basin." Funded by the U.S. Environmental Protection Agency, \$35,448. 4/1/2002–9/30/2003.
15. Wu, J. (PI), W. Boggess, R. Adams, W. Liss, J. Moore, and S. Johnson. "Optimal Targeting of Salmon Habitat Enhancement Efforts: Grande Ronde Basin, Oregon." Funded by the USDA National Research Initiatives Agricultural Systems Program, \$200,000. 10/15/01–10/14/04.
16. Wu, J. (PI), and Andrew Plantinga. "The Effect of Local Land Use Regulations on Deforestation and Urbanization in Western United States." Funded by the USDA National Research Initiatives Rural Development Program, \$105,000. 10/15/01–10/14/04.
17. Wu, J. (Co-PI), and D. Hannaway. "Expanding Marketing Opportunities in China for US-Grown Cool Season Grasses and Legumes Using Web-Based Dynamic Mapping of Spatial Data." Funded by the U.S. Department of Agriculture, \$21,216. 10/1/01–4/30/03.
18. Wu, J. (PI). "The Effect of Long-Range Climate Prediction on Cropping Patterns and NO3 Runoff and Leaching in the Mississippi River Basin." Funded by the U.S. Environmental Protection Agency, \$71,121. 7/1/2000–12/31/2001.
19. Wu, J. (PI). "The Effect of Local Land Use Regulations on Deforestation and Farmland Losses: A Comparison between the West and East Sides of the Pacific Northwest." Funded by the U.S. Forest Service, \$10,876. 4/24/2000–2/28/2001.
20. Wu, J. (PI). "Ag-Practice Response Modeling Systems." Funded by the U.S. Environmental Protection Agency, \$48,700. 11/1/1997–10/31/1998.
21. Wu, J. (PI). "Ag-Practice Response Modeling Systems." Funded by the U.S. Environmental Protection Agency, \$27,135. 7/1/1999–6/31/2000.

## 12. Services

### *University Services*

#### *Current Services*

- 2015–: Provost’s Fellowship/Scholarship Committee
- 2011–: College of Agricultural Sciences P&T Committee
- 2003–: Departmental P&T Committee
- 2013–: Departmental Award and Recognition Committee
- 2006–: Junior Faculty Mentoring Committee

#### *Past Services*

- 2015: Search Committee for the Environmental & Resource Economics Position
- 2013: Search Committee Chair for the Environmental & Resource Economics Position
- 2012: Search Committee Chair for the Environmental & Resource Economics Position
- 2008–2010: Graduate Committee
- 2007: Search Committee Chair for the Environmental & Resource Economics Position
- 2007–2014: Graduate Committee
- 2006–2007: Graduate Admission Committee
- 2005–2006: UGFE Policy Committee
- 2005–2006: Graduate Admission Committee
- 2004–2006: Graduate Committee
- 2004–2005: Undergraduate Committee
- 2001: Search Committee for the Assistant Director of Oregon Agricultural Experiment Station, College of Agricultural Sciences
- 2001: Chair, Resource and Environmental Economics Work Group
- 2000–2005: Departmental Planning and Policy Committee
- 2000–2003: Faculty Governance Committee
- 2000–2003: Award and Recognition Committee
- 2000–2001: Undergraduate Committee
- 2000–2001: Seminar Committee
- 2000: Search Committee for the Environmental and Resource Economics Position
- 1999–2000: Undergraduate Committee
- 1998–1999: Graduate Committee
- 1998: Environmental and Resource Economics Committee
- 1998: Committee for Nominating Theses for AAEA and WAEA Awards

### **Professional Services**

#### *Current Services*

- 2013–: Editor, *American Journal of Agricultural Economics*
- 2013–: Selection Committee for Bruce Gardner Memorial Prize for Applied Policy Analysis Award, Agricultural and Applied Economics Association
- 2011–: Council on Food, Agricultural and Resource Economics (C-FARE), Blue Ribbon Panel of Experts, Environmental and Natural Resources Panel
- 2010–: Pacific Northwest Power and Conservation Council Independent Economic Analysis Board
- 2009–: Editorial Council, *Journal of Environmental Economics and Policy (Chinese)*
- 2009–: U.S. Environmental Protection Agency Science Advisory Board Environmental Economics Advisory Committee
- 2007–: Editorial Council, *Land Economics*

*Past Professional Services*

- 2015: Reviewer, 2015 AERE Summer Conference, San Diego, CA.
- 2013–2015: Association of Environmental and Resource Economists' Best JEEM/JAERE Article Award Committee
- 2012: Program Committee, the 2012 Agricultural and Applied Economics Association Annual Meetings
- 2012: US EPA Science Advisory Board Environmental Economics Advisory Committee Augmented to Consider the Value of Water in the U.S. Economy
- 2012–2015: Associate Editor, *Journal of Regional Science*
- 2011: Chair, Outstanding Published Research Award Committee, Western American Agricultural Economist Association
- 2011: Program Committee, AERE Summer Conference, Seattle, WA
- 2010: Outstanding Published Research Award Committee, Western American Agricultural Economist Association
- 2010–2014: Editorial Board, *Environmental Economics and Policy Studies*
- 2010: Scientific Program Committee, the Fourth World Congress of Environmental and Resource Economists
- 2007–2014: Editorial Council, *Journal of Agricultural and Resource Economics*
- 2006: Discussant, IFPRI/CES International Conference on Dragon and the Elephant: China and India's Economic Reforms, Shanghai, China, July 1-2, 2006
- 2006: Paper Program Committee, the Third World Congress of Environmental and Resource Economists
- 2005–2007: American Agricultural Economist Association Master Thesis Award Committee
- 2005: Scientific Committee, International Workshop on the Role of Open Space and Green Amenities in the Residential Move from Cities, Dijon, France. December 14-16, 2005
- 2005: Reviewer and Moderator, the 2005 Annual Meetings of American Agricultural Economist Association, Providence, RI. 2005
- 2004–2007: Associate Editor, *American Journal of Agricultural Economics*
- 2004–2008: Editorial Council, *Journal of Environmental Economics and Management*
- 2004: Reviewer and Moderator, the 2004 Annual Meetings of American Agricultural Economist Association, Denver, CO. 2004
- 2000–2004: Quality Research Discovery Award Committee, American Agricultural Economist Association
- 2003–2004: Council, Western Agricultural Economist Association
- 2001: Reviewer, Natural Resource Economics, the 2001 Annual Meeting of American Agricultural Economist Association, Chicago, IL. August 5-8, 2001
- 2000: Topic Leader, Environmental Economics, the 2000 Annual Meeting of American Agricultural Economist Association, Tampa, FL. July 30-August 3, 2000
- 2000: Reviewer, Poster Papers, the 2000 Annual Meeting of American Agricultural Economist Association, Tampa, FL. July 30-August 3, 2000
- 2000: Moderator, the 2000 Annual Meeting of American Agricultural Economist Association, Tampa, FL. July 30-August 3, 2000
- 1999: Discussant, the 1999 Annual Meeting of American Agricultural Economist Association. Nashville, TN. August 8-11, 1999