Paul J. Ferraro

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EDUCATION

BA (Biology and History), Duke University, 1990

MS, Duke University, 1994

PhD, Cornell University, 2001

Dissertation: Constructing Markets for Ecosystem Services: essays in conservation contracting

ACADEMIC POSITIONS

Bloomberg Distinguished Professor, Carey Business School & Whiting School of Engineering (Department of Geography and Environmental Engineering), Johns Hopkins University, '15-present.

Regents' Professor, Department of Economics, Andrew Young School of Policy Studies, Georgia State University, 2001 – present (Assistant Professor '01-'07; Associate Professor '07-'11; Professor '11-'14)

Co-Director, USDA Center for Behavioral and Experimental Agri-Environmental Research (C-BEAR), 2014-present

AWARDS AND HONORS

Humanitas Visiting Professor of Sustainability, University of Cambridge, 2015-2016

Provost's Faculty Fellow Award, 2013

National Academy of Sciences Cozzarelli Prize, 2012 (for article of "outstanding scientific excellence and originality" published in the *Proceedings of the National Academy of Sciences*)

Fulbright Scholar (Costa Rica), 2011-2012

Outstanding Faculty Achievement Award, Georgia State University, 2010

World Wildlife Fund Senior Science Fellow, 2006-present

Kathryn Fuller Science for Nature Fund Visiting Scientist, 2007-2010

Resources for the Future Joseph Fisher Fellow, 2000

Institute for the Study of World Politics Fellow, 1999

United States Environmental Protection Agency STAR Fellow, 1997-1999

United States Agency for International Development Research Fellowship, 1992-1994

William Lazar Foundation International Environmental Leadership Award, 1992

Center for International Studies Graduate Award for International Research, 1992

William T. Laprade Prize for Outstanding Honors Thesis, 1990

Duke University Senior Leadership Award, 1990

National Merit Commended Scholar, Garden State Scholar, and Colgate Scholar, 1986

EDITORIAL AND ADVISORY BOARDS

Senior Editor, *Environmental Evidence* (new journal launched in 2012), 2011 – present

Handling Editor, *Proceedings of the National Academy of Sciences*, 2014 – present

Editorial Board, Conservation Letters, 2013 – present

Editorial Board, Land Economics, 2012 – present

Scientific Committee, Community of Practice, Forests and Livelihoods: Assessment, Research, and Engagement (FLARE) network, 2015 – present

Advisory Board, Center for the Management of Ecological Wealth, Resources for the Future, 2012 – present

Advisory Board, Collaboration for Environmental Evidence, 2009 – present

Advisory Board, Conservation Strategy Fund, 2009 – present (winner of 2012 MacArthur Award for Creative and Effective Institutions)

Research Associate, The Environment for Development Initiative, 2012 – present

Board of Directors, Association of Environmental and Resource Economists, 2010–2012

Editorial Board, Conservation Biology, 2010-2012 (Handling Editor, 2007–2010)

Scientific and Technical Advisory Panel - Global Environment Facility (GEF)/United Nations Environmental Programme, 2006–2009 (one of five science advisors; ~70 days per year)

PRACTICE

Grazing Permit Retirement Auction in the Charles M. Russell National Wildlife Refuge (5/08-9/09), National Wildlife Federation/World Wildlife Fund, Montana; Payments for Avoided Ecosystem Degradation in Nudo del Azuay, Ecuador, Fundación Cordillera Tropical and CIFOR (7/08-5/09); Program Evaluation of Institute for Family Centered Services' In-home Treatment Service for at-risk Youth. Maryland and Virginia (4/06-3/08); Payments for Environmental Services, Sustainable Agriculture and Natural Resources Management (SANREM) Collaborative Research Support Program (9/06-10/07); International Panel to Evaluate Costa Rica's Programa de Pagos de Servicios Ambientales y Proyecto Ecomercados. Ministerio de Ambiente y Energía, Costa Rica (9/05); Ukraine-American Policy and International Coordination Work Group and Ukraine Environmentally Sound Business Development Project. For USAID/Bureau for Europe and the New Independent States. (1/96 - 12/96); Economic Factors Affecting the Conservation or Depletion of Biodiversity, and A Framework for Affecting Household Behavior to Promote Biodiversity Conservation: field applications. For USAID/Africa Bureau (10/95 – 9/96); Pesticide Use and Pest Management in Madagascar: sub-sector and programmatic environmental assessment. For USAID/Africa Bureau and USAID/Madagascar (8/95 – 9/95); Trade in Biodiversity for Environmental Management. For USAID/Madagascar (6/94 – 11/94); Environmental Valuation of a Development and Conservation Project. For World Bank/Duke University (3/91 - 6/91; 1/92); Alternatives to Destruction: steps towards the sustainable use of the Malagasy rain forest. Funded by the Rhode Island Zoological Society, the Biodiversity Support Program (World Wildlife Fund, the Nature Conservancy, and the World Resources

Institute), and the Rainforest Alliance. (8/91 - 12/96); Man and the Malagasy Rain Forest: an integrated conservation/sustained development project. Funded by the UNESCO Man and the Biosphere Program. (6/89 - 7/89; 8/90 - 3/91).

Provide pro bono advice to more than two dozen non-profit and governmental groups.

TEACHING

University Courses: Causal Inference (PhD); Environmental and Natural Resources Economics (PhD); Environmental Economics and Policy (Masters); Engineering Economics (Undergraduate); Environmental and Natural Resource Economics (Undergraduate); Introduction to Microeconomics (Undergraduate); Mathematics for Economists (PhD); Fact or Fiction? Evaluating Evidence in Global Policy Debates (First-year Undergraduate Seminar).

Short Courses: Recent Advances in Program and Policy Evaluation (Invited annual preconference workshop for Association of Environmental and Resource Economists);

Advances in Evaluating the Environmental and Social Impacts of Environmental Programs (Latin American and Caribbean Environmental Economics Program); Advances in Impact Evaluation and Causal Inference (two times at annual conference of Society for Conservation Biology & for University of Queensland); Payments for Environmental Services (University of Copenhagen); Impact Evaluation (Latin American and Caribbean Environmental Economics Program); Behavioral Economics: implications for environmental program design and benefit-cost analysis (U.S. Environmental Protection Agency).

PUBLICATIONS: SCHOLARLY JOURNALS

- 67. Ferraro, PJ, M Hanauer, D Miteva, J Nelson, S Pattanayak, C Nolte, K Sims. 2015. Estimating the Impacts of Conservation on Ecosystem Services by Integrating Modeling and Evaluation. *Proceedings of the National Academy of Sciences* 112: 7420-7425.
- 66. Ferraro, PJ, M Hanauer. In Press (Oct). Through what Mechanisms do Protected Areas Affect Environmental and Social Outcomes? Invited article for *Special Issue for the 350th Anniversary of the Philosophical Transactions of the Royal Society*.
- 65. Ferraro, PJ, R Pressey. In Press (Oct). Protected Area Impacts in the 21st Century: An Introduction. Introduction to *Special Issue for the 350th Anniversary of the Philosophical Transactions of the Royal Society*.
- 64. Pressey, R, P Visconti, PJ Ferraro. Making parks make a difference: poor alignment of planning, management, and policy with protected-area impact, and ways forward. Invited article for *Special Issue for the 350th Anniversary of the Philosophical Transactions of the Royal Society*.

- 63. Arriagada, R, EO Sills, PJ Ferraro, S Pattanayak. 2015. Do Payments Pay Off? Evidence from participation in Costa Rica's PES program. *PLoS One*. DOI: 10.1371/journal.pone.0131544
- 62. McConnatchie, M, C Romero, PJ Ferraro, B van Wilgen. Accepted, Improving credibility and transparency of conservation impact evaluations through the partial identification approach. *Conservation Biology*.
- 61. McConnatchie, M, B van Wilgen, PJ Ferraro, AT Forsyth, DM Richardson, M Gaertner, RM Cowling. Using Counterfactuals to Evaluate the Cost-effectiveness of Controlling Biological Invasions. *Ecological Applications*.
- 60. Rasolofoson, R, PJ Ferraro, C Jenkins, J Jones. 2015. Effectiveness of Community Forest Management at Reducing Deforestation in Madagascar. *Biological Conservation* 184: 271-277.
- 59. Baylis, K, J Honey-Rosés, J Borner, E Corbera, PJ Ferraro, A Pfaff, P Davies, D de Blas, R Lapeyre, S Pagiola, M Persson, S Wunder. In Press. Mainstreaming impact evaluation in nature conservation. *Conservation Biology*.
- 58. McConnachie, MM, BW van Wilgen, DM Richardson, PJ Ferraro, A Forsyth. 2015. Estimating the Effect of Plantations on Pine Invasions in Protected Areas: A case study from South Africa. *Journal of Applied Ecology* 52: 110-118.
- 57. Ferraro, PJ, M Hanauer. 2014. Quantifying Causal Mechanisms to Determine How Protected Areas Affect Poverty through Changes in Ecosystem Services and Infrastructure. *Proceedings of the National Academy of Sciences* 111:4332–4337.
- Accompanying *Perspective* piece by A. Agrawal, "Matching and mechanisms in protected area and poverty alleviation research"
- 56. Bolsen, T, PJ Ferraro, JJ Miranda. 2014. Are Voters More Likely to Contribute to Other Public Goods? Evidence from a Large-Scale Randomized Policy Experiment. *The American Journal of Political Science* 58(1): 17-30.
- 55. Ferraro, PJ, J Miranda. 2014. The Performance of Non-experimental Designs in the Evaluation of Environmental Policy: a design-replication study using a large-scale randomized experiment as a benchmark. *Journal of Economic Behavior and Organization* 107: 344-365.
- 54. Ferraro, PJ, MM Hanauer. 2014. Advances in Measuring the Environmental and Social Impacts of Environmental Programs. *Annual Review of Environment and Resources* 39: 495-517.
- 53. Tallis, H et al. 2014. Towards a Diverse Conservation Ethic. Nature 515: 27-28.
- 52. Bernedo, M, PJ Ferraro, M Price. 2014. The Persistent Impacts of Norm-based Messaging and their Implications for Water Conservation. *Journal of Consumer Policy* (Special Issue "Behavioural Economics, Environmental Policy and the Consumer," eds. L Reisch & C Sunstein) 37(3): 437-452.

- 51. Fisher, B, A Balmford, PJ Ferraro, L Glew, M Mascia, R Naidoo, T Ricketts. 2014. Moving Rio Forward and Avoiding Ten More Years with Little Evidence for Effective Conservation Policy. *Conservation Biology* 28(3): 880-882.
- 50. Ferraro, PJ, M Price. 2013. Using Non-pecuniary Strategies to Influence Behavior: evidence from a large-scale field experiment. *The Review of Economics and Statistics* 95(1): 64-73.
- 49. Ferraro, PJ, JJ Miranda. 2013. Heterogeneous Treatment Effects and Causal Mechanisms in Non-pecuniary, Information-based Environmental Policies: evidence from a large-scale field experiment. *Resource and Energy Economics* 35: 356-379.
- 48. Ferraro, PJ, M Hanauer, D Miteva, G. Canavire-Bacareza, S Pattanayak, and K Sims. 2013 More Strictly Protected Areas are not Necessarily More Protective. *Environmental Research Letters* 8: 02511.
- 47. Andam, KS, PJ Ferraro, M Hanauer. 2013. The Effects of Protected Area Systems on Ecosystem Restoration: a quasi-experimental design to estimate the impact of Costa Rica's protected area system on forest regrowth. *Conservation Letters* 6(5): 317-323.
- 46. Jindal, J Kerr, PJ Ferraro, B Swallow. 2013. Social Dimensions of Procurement Auctions for Environmental Service Contracts: Evaluating tradeoffs between cost-effectiveness and participation by the poor in rural Tanzania. *Land Use Policy* 31: 71-80.
- 45. Ferraro, PJ, K Lawlor, K Mullan, SK Pattanayak. 2012. Forest Figures: A review of ecosystem services valuation and policy evaluation in developing countries. *Review of Environmental Economics and Policy* 6(1): 20-44.
- 44. Arriagada, R, PJ Ferraro, S Pattanayak, R, E Sills, S Cordero. 2012. Do Payments for Environmental Services Reduce Deforestation? A farm-level evaluation from Costa Rica. *Land Economics* 88: 382-399.
- 43. Miteva, D, SK Pattanayak, PJ Ferraro. 2012. Evaluation of Biodiversity Policy Instruments: What works and what doesn't? *Oxford Review of Economic Policy* 28(6): 69-92.
- 42. Castillo, M, PJ Ferraro, J Jordan, R Petrie. 2011. The Today and Tomorrow of Kids: time preferences and educational outcomes of children. *Journal of Public Economics* 95: 1377-1385. [Reprinted in *Field Experiments*, J. List & A. Samak (eds). The International Library of Critical Writings in Economics. Edward Elgar]
- 41. Ferraro, PJ, M Hanauer and KE Sims. 2011. Conditions Associated with Protected Area Success in Conservation and Poverty Reduction. *Proceedings of the National Academy of Sciences* 108(34): 13913-13918.
 - [2011 Cozzarelli Prize. Selected from over 3,800 articles as article of "outstanding scientific excellence and originality" published in *Proceedings of the National Academy of Sciences*]

- 40. Ferraro, PJ, JJ Miranda, M Price. 2011. Persistence of Treatment Effects with Norm-based Policy Instruments: evidence from a randomized environmental policy experiment. *American Economic Review: papers and proceedings* 101(3): 318–22.
- 39. Ferraro, PJ. 2011. The Future of Payments for Environmental Services. Invited article, *Conservation Biology* (25th Anniversary Issue) 25: 1134-1138.
- 38. Ferraro, PJ and M Hanauer. 2011. Protecting Ecosystems and Alleviating Poverty with Parks and Reserves: 'win-win' or tradeoffs? *Environmental and Resource Economics* 48:269–28.
- 37. Andam, KS, PJ Ferraro, KE Sims, A Healy, and MB Holland. 2010. Protected Areas Reduced Poverty in Costa Rica and Thailand. *Proceedings of the National Academy of Sciences* 107(22): 9996-10001. (*Andam, Ferraro & Sims share senior authorship*)
- 36. Pattanayak, SK, S Wunder and PJ Ferraro. 2010. Show Me the Money: do payments supply ecosystem services in developing countries? *Review of Environmental Economics and Policy* 4(2): 254-274.
- 35. Ferraro, PJ and C Vossler. 2010. The Source and Significance of Confusion in Public Goods Experiments. *B.E. Journal of Economic Analysis & Policy* 10(1), Article 53.
- 34. Ferraro, PJ. 2010. Know Thyself: competence and self-awareness. *Atlantic Economic Journal* 38(2): 183-196.
- 33. Adji, A, J Alm, and PJ Ferraro. 2009. Experimental Tests of Ricardian Equivalence with Nondistortionary versus Distortionary Taxes. *Economics Bulletin* 29(4): 2556-2572.
- 32. Pfaff, A, J Robalino, GA Sanchez-Azofeifa, KS Andam, and PJ Ferraro. 2009. Park Location Affects Forest Protection: land characteristics cause differences in park impacts across Costa Rica. *The B.E. Journal of Economic Analysis & Policy* 9(2), Article 5.
- 31. Jack, BK, B Leimona, and PJ Ferraro. 2009. A Revealed Preference Approach to Estimating Supply Curves for Environmental Services: experimental field auctions and soil erosion control in Indonesia. *Conservation Biology* 23(3): 359-367.
- 30. Ferraro, PJ and H Gjertsen. 2009. A Global Review of Incentive Payments for Sea Turtle Conservation. *Chelonian Conservation and Biology* 8(1): 48-56.
- 29. Sutherland, WJ, WM Adams, RB Aronson, R Aveling, TM Blackburn, S. Broad, G. Ceballos, IM Côté, RM Cowling, GAB da Fonseca, E Dinerstein, PJ Ferraro, E Fleishman, C Gascon, M Hunter Jr, J Hutton, P Kareiva, P, A Kuria, DW Macdonald, MacKinnon, K, Madgwick, FJ, Mascia, MB, McNeely, J, Milner-Gulland, EJ, Moon, S, Morley, CG, Nelson, S, Osborn, D, Pai, M, Parsons, ECM, Peck, LS, Possingham, H, Prior, SV, Pullin, AS, Rands, MRW, Ranganathan, J, Redford, KH, Rodriguez, JP, Seymour, F, Sobel, F, Sodhi, NS, Stott, A, Vance-Borland, K & Watkinson, AR. 2009. One Hundred Questions of Importance to the Conservation of Global Biological Diversity. *Conservation Biology* 23(3): 557-567.

- 28. Ferraro, PJ. 2009. Regional Review of Payments for Watershed Services: Sub-Saharan Africa. *Journal of Sustainable Forestry* 28(3): 525-550.
- 27. Arriagada, R, EO Sills, SK Pattanayak, and PJ Ferraro. 2009. Combining Qualitative and Quantitative Methods to Evaluate Participation in Costa Rica's Program of Payments for Environmental Services. *Journal of Sustainable Forestry* 28(3): 343-367.
- 26. Ferraro, PJ. 2009. Counterfactual Thinking and Impact Evaluation in Environmental Policy. In Special Issue on Environmental Program and Policy Evaluation, M. Birnbaum & P. Mickwitz (Eds.). *New Directions for Evaluation* 122: 75–84.
- 25. Andam, KS, PJ Ferraro, A Pfaff, GA Sanchez-Azofeifa, and J Robalino. 2008. Measuring the Effectiveness of Protected Area Networks in Reducing Deforestation. *Proceedings of the National Academy of Sciences* 105(42): 16089-16094. (*Andam & Ferraro share senior authorship*)
- 24. Ferraro, PJ. 2008. Asymmetric Information and Contract Design for Payments for Environmental Services. *Ecological Economics* 65(4): 810-821.
- 23. Fisher, B, K Turner, A Balmford, R Brouwer, R Costanza, R de Groot, S Farber, P Ferraro, R Green, D Hadley, J Harlow, P Jefferiss, C Kirby, P Morling, S Mowatt, R Naidoo, J Paavola, B Strassburg, D Yu, M Zijlstra. 2008. Ecosystem Services and Economic Theory: Integration for policy-relevant research. *Ecological Applications* 18(8): 2050–2067.
- 22. Ferraro, PJ, C McIntosh and M Ospina. 2007. The Effectiveness of Listing under the U.S. Endangered Species Act: An econometric analysis using matching methods. *Journal of Environmental Economics and Management* 54(3): 245-261.
- 21. Ferraro, PJ and RG Cummings. 2007. Cultural Diversity, Discrimination and Economic Outcomes: an experimental analysis. *Economic Inquiry* 45(2): 217-232.
- 20. Uchida, T and PJ Ferraro. 2007. Voluntary Development of Environmental Management Systems: Motivations and regulatory implications. *Journal of Regulatory Economics* 32: 37-65.
- 19. Ferraro, PJ and T Uchida. 2007. Stock Market Reactions to Information Disclosure: new evidence from Japan's Pollutant Release and Transfer Register. *Environmental Economics and Policy Studies* 8: 159-171.
- 18. Naidoo, R, A Balmford, PJ Ferraro, S Polasky, T Ricketts and M Rouget. 2007. Response to Hockley et al.: The merit of economic and biological measures in conservation planning. *Trends in Ecology and Evolution* 22(6): 287-288.
- 17. Naidoo, R, A Balmford, PJ Ferraro, S Polasky, T Ricketts and M Rouget. 2006. Integrating Economic Costs into Conservation Planning. *Trends in Ecology and Evolution* 21(2): 681-687.
- 16. Ferraro, PJ and SK Pattanayak. 2006. Money for Nothing? A call for empirical evaluation of biodiversity conservation investments. *PLoS Biology* 4(4): 482-488.
- 15. Ferraro, PJ and LO Taylor. 2005. Do Economists Recognize an Opportunity Cost When

- They See One? A dismal performance from the dismal science. *B.E. Journal of Economic Analysis & Policy* (Contributions) 4(1), Article 7. [one of ten most downloaded articles at BE Press in 2005]
- 14. Ferraro, PJ. 2005. Corruption and Conservation: the need for empirical analyses. *Oryx The International Journal of Conservation* 39: 257-259. [Invited by the editor]
- 13. Ferraro, PJ, T Uchida and JM Conrad. 2005. Price Premiums for Eco-friendly Commodities: Are 'green' markets the best way to protect endangered ecosystems? *Environmental and Resource Economics* 32(3): 419-438.
- 12. Ferraro, PJ and RD Simpson. 2005. Protecting Forests and Biodiversity: are investments in eco-friendly production activities the best way to protect endangered ecosystems and enhance rural livelihoods? *Forests, Trees and Livelihoods* 15(2): 2-10.
- 11. Ferraro, PJ and RD Simpson. 2005. Cost-Effective Conservation When Eco-entrepreneurs have Market Power. *Environment and Development Economics* 10(5): 651-663.
- 10. Ferraro, PJ. 2004. Targeting Conservation Investments in Heterogeneous Landscapes: A distance function approach and application to watershed management. *American Journal of Agricultural Economics* 86(4): 905-918.
- 9. Ferraro, PJ and A Kiss. 2003. Will Direct Payments Help Biodiversity? Response. *Science* 299 (28 March): 1981-1982.
- 8. Ferraro, PJ. 2003. Conservation Contracting in Heterogeneous Landscapes: An application to watershed protection with threshold constraints. *Agricultural and Resource Economics Review* 32(1): 53-64.
- 7. Ferraro, PJ, D Rondeau, and GL Poe. 2003. Detecting Other-regarding Behavior with Virtual Players. *The Journal of Economic Behavior and Organization* 51(1): 99-109.
- 6. Ferraro, PJ. 2003. Assigning Priority to Environmental Policy Interventions in a Heterogeneous World. *Journal of Policy Analysis and Management* 22(1): 27-43.
- 5. Ferraro, PJ, and A Kiss. 2002. Direct Payments for Biodiversity Conservation. *Science* 298: 1718-1719.
- 4. Azzaino, Z, J Conrad and PJ Ferraro. 2002. Optimizing the Riparian Buffer: Harold Brook in the Skaneateles Lake Watershed, New York. *Land Economics* 78(4): 501-514.
- 3. Ferraro, PJ. 2002. The Local Costs of Establishing Protected Areas in Low-income Nations: Ranomafana National Park, Madagascar. *Ecological Economics* 43(2-3): 261-275.
- 2. Ferraro, PJ and RD Simpson. 2002. The Cost-effectiveness of Conservation Performance Payments. *Land Economics* 78(3): 339-353.
- 1. Ferraro, PJ. 2001. Global Habitat Protection: Limitations of development interventions and a role for conservation performance payments. *Conservation Biology* 15(4): 990-1000.

[Reprinted in special issue for International Year of Biodiversity: Conservation Social Science, April 2010, *Conservation Biology*]

WORKING PAPERS UNDER REVIEW AND IN PROGRESS

- 1. Alpízar, F, PJ Ferraro. Evidence about the value of evidence: a randomized controlled trial of in climate change adaptation information dissemination. In progress.
- 2. Alpízar, F, M Bernedo, PJ Ferraro. An RCT of RCTs: climate change adaptation through resource conserving technology adoption. In progress.
- 3. Bernedo, M, Alpízar, F, PJ Ferraro. The role of risk and time preferences in climate change adaptation. In progress.
- 4. Earnhart, D, PJ Ferraro. Testing competing behavioral hypotheses of pollution control among private firms: a randomized field experiment in the chemical sector. In progress.
- 5. Earnhart, D, PJ Ferraro. Testing civic organization pressure on the behavior of polluting firms: a randomized field experiment. In progress.
- 6. Ferraro, PJ. From good intentions to evidence: the real path to sustainability. Book manuscript. In progress.
- 7. Ferraro, PJ, L Friesen, J Shimshack. Alternative enforcement strategies for pollution control laws in the United States: a randomized policy experiment. In progress (on hold).
- 8. Ferraro, PJ, Micheli, F. Protecting nature for its own sake or for humans? Evidence from a randomized controlled trial on coupled natural-human systems. In progress.
- 9. Ferraro, PJ, J Manzella, S Frost. Supplemental Instruction in difficult college courses: a randomized controlled trial. In progress.
- 10. Ferraro, PJ, K Messer. Behavioral nudges in competitive environments: a field experiment of defaults and social comparisons in a conservation contracting auction. In progress.
- 11. Ferraro, PJ, M Hanauer, L Joppa, A Pfaff, R Pressey. Merging the fields of impact evaluation and conservation planning: a roadmap. In progress.
- 12. Ferraro, PJ, K Messer. Coherent arbitrariness among producers in a competitive market. In progress.
- 12. Ferraro, PJ, JJ Miranda. Panel data designs and estimators as alternatives for randomized controlled trials in the evaluation of social programs. Revise and Resubmit.
- 13. Ferraro, PJ, F Rundhammer, R Tchernis. Conditions under which combining matching and regression designs outperform each design individually: a guide for applied empiricists. In progress.
- 14. Ferraro, PJ, F Rundhammer, M Price. Reconsidering the experimental evidence of short-run and longer-run effects of behavioral interventions aimed at energy conservation. In progress.

- 15. Ferraro, PJ, J Sanchirico, M Smith. State of the evidence for environmental and social impacts of marine protected areas. In progress.
- 16. Ferraro, PJ, R Simorangkir, J Busch, J Engelmann. The impact of Brazil's Action Plan for the Prevention and Control of Deforestation in the Legal Amazon (PPCDAM) on reducing deforestation: lessons for REDD from a synthetic control evaluation design. In progress.
- 17. Ferraro, PJ, C. Wichman. A cautionary tale on using panel data estimators to measure program impacts. In progress.
- 18. Messer, K, PJ Ferraro, W Allen. Behavioral nudges in competitive environments: a field experiment examining defaults and social comparisons in a conservation contract auction. In progress.
- Pressey, RL, PJ Ferraro, M Bottrill, V Kapos, G Mace, A Pfaff, P Visconti, M Obersteiner. The mismeasure of conservation. Working paper.
- 19. Rasolofoson, R, PJ Ferraro³, G Ruta⁴, M Rasamoelina, J Jones, H Larsen Impacts of Community Forest Management on human economic well-being in Madagascar. Working paper.
- 20. Wallender, S., PJ Ferraro, N Higgins. Nudges and federal program participation: a field experiment with the Conservation Reserve Program. Working paper.

SPECIAL ISSUES OF JOURNALS: EDITOR

1. Interdisciplinary methods for measuring the difference made by conservation initiatives: protected areas and their environmental and social impacts. (with R. Pressey) *Special Issue for the 350th Anniversary of the Philosophical Transactions of the Royal Society B.* 2015

PUBLICATIONS: REFEREED PROFESSIONAL/PRACTITIONER

- 3. Sills, EO, S Pattanayak, PJ Ferraro, and K Algers. 2006. Abordagens Análiticas na Avaliação de Impactos Reais de Programas de Conservação. *Megadiversidade* 2(1-2): 39-49.
- 2. Ferraro, PJ. 2006. Response to Comment by Peter C.H. Pritchard. *Marine Turtle Newsletter* 111: 4-5.
- 1. Ferraro, PJ. 2005. Guest Editorial: An Economist's Reflections on the 25th Annual Symposium for Sea Turtle Biology and Conservation: Empirical Program Evaluation and Direct Payments for Sea Turtle Conservation. *Marine Turtle Newsletter* 109: 2-6.

PUBLICATIONS: BOOKS, MONOGRAPHS AND REPORTS

14. Bernedo, M, PJ Ferraro. Behavioral Economics and Climate Change Adaptation: insights from experimental economics on the role of risk and time preferences. Accepted. In *Globalization, Society and Environment: Experimental Economics*, A. Dinar (ed.).

- 13. Miteva, D, S Pattanayak and PJ Ferraro. 2014. Do biodiversity policies work? The case for Conservation Evaluation 2.0. In *Nature in the Balance: the economics of biodiversity*, edited by Dieter Helm and Cameron Hepburn. Oxford University Press.
- 12. Barrett, CB, EH Bulte, PJ Ferraro and S Wunder. 2013. Economic instruments for nature conservation. In *Key Topics in Conservation Biology* 2, edited by D MacDonald & K Willis. Wiley-Blackwell Publishing.
- 11. Sills, E., R. Arriagada, S. Pattanayak, P. Ferraro, L. Carrasco, E. Ortiz, S. Cordero, K. Caldwell, and K. S. Andam. 2009. Impact of the PSA Program on Land Use. In *Ecomarkets: Costa Rica's Experience with Payments for Environmental Services*, G. Platais, and S. Pagiola (Eds.). World Bank.
- 10. Cotten, S, PJ Ferraro and CA Vossler. 2008. Can Public Goods Experiments Inform Policy? Interpreting results in the presence of confused subjects. In *Environmental Economics*, *Experimental Methods*, edited by T. Cherry, S. Kroll and J. Shogren. Routledge, pp.194-211.
- 9. Ferraro, PJ and RG Cummings. 2007. Experimental approaches to understanding inter-cultural conflict over resources. In *Using Experimental Methods in Environmental and Resource Economics*, edited by J. List. Edward Elgar, pp. 137-160.
- 8. Albers, HJ and PJ Ferraro. 2006. Economics of Biodiversity Conservation in Developing Countries. In *Economic Development and Environmental Sustainability: new policy options*, edited by M Toman and R Lopez. Oxford University Press, NY.
- 7. Ferraro, PJ and RD Simpson. 2006. Cost-effective Conservation: A review of what works to preserve biodiversity. In *Resources for the Future Reader in Environmental Policy and Resource Management*, 2nd edition, edited by WE Oates. Resources for the Future Press, Washington DC. Reprinted from 2001 article in *Resources* 143: 17-20.
- 6. Ferraro, PJ. 2006. Integrating Biophysical and Economic Information to Guide Land Conservation Investments. In *Economics and Contemporary Land Use Policy: Development and Conservation at the Rural-Urban Fringe*, edited by R Johnson and S Swallow. Resources for the Future Press, Washington, D.C., pp.267-290.
- 5. Ferraro, PJ. Contributing author to *Ecosystems and human well-being: policy responses*, *Findings of the Responses Working Group of the Millennium Ecosystem Assessment* (2005, Cambridge University Press). The *Millennium Ecosystem Assessment* was a four-year, \$21 million undertaking intended to produce a comprehensive view of the state and management of the planet's ecological resources.
- 4. Nyhus, PJ, SA Osofsky, PJ Ferraro, H Fischer and F Madden. 2005. Bearing the Costs of Human-wildlife Conflict: the challenges of compensation schemes. In *People and Wildlife: Conflict or Coexistence?* edited by R Woodroffe, S Thirgood & A Rabinowitz. Cambridge University Press, Cambridge, U.K.
- 3. Ferraro, PJ. 2001. Reconciling the Long-term Conservation Needs of Large Mammals and

- Local Communities: conservation performance payments. In *Terrestrial Ecoregions of the Indo-Pacific: a conservation assessment*, eds., E Wikramanayake, E Dinerstein, and CJ Loucks. Washington, D.C.: Island Press, pp. 185-187.
- 2. Lee, DR, PJ Ferraro, and CB Barrett. 2000. Introduction: Changing perspectives on agricultural intensification, economic development and the environment. In *Tradeoffs or Synergies? Agricultural Intensification, Economic Development and the Environment in Developing Countries*, DR Lee and CB Barrett (eds.). Wallingford, UK: CAB International, pp. 1-16.
- 1. Ferraro, PJ and RA Kramer. 1997. Compensation and Economic Incentives: Reducing pressures on protected areas. In *Last Stand: protected areas and the defense of tropical biodiversity*, R Kramer, C van Schaik, and J Johnson (eds.). New York: Oxford University Press, pp. 187-211.

PUBLICATIONS: NON-REFEREED AND OTHER

- 25. Claudia Romero, Francis Putz, Arild Angelsen, Jan Börner, Merlin Hanauer, Matt McConnachie, Subhrendu Pattanayak, Erin Sills, Sven Wunder, Paul Ferraro. Comment on Gibbs et al. (*Science*, January 2015). 26 May, 2015
- 24. Ferraro, PJ. 2014. More Nudging, Less Shoving on the Road to Sustainability. SNAP.is/Magazine.
- 23. Bolsen, T, PJ Ferraro, M Miranda. 2014. Those Who Vote are Also More Likely to Contribute to Other Public Goods. London School of Economics and Political Science, American Politics and Policy Blog. January 13.
- 22. Ferraro, PJ. 2013 Nature & Prosperity: the evidence we still need & the right questions to ask. SNAP.is/Magazine. October 9.
- 21. Zimsky, M, J Cavelier, PJ Ferraro, A Joshi, P Krishnan, J Mee, N Sekhran. 2012. Results of the GEF Biodiversity Portfolio Monitoring and Learning Review Mission, India: Enhancing outcomes and impact through improved understanding of protected area management effectiveness. Global Environment Facility-Secretariat, Washington, DC.
- 20. Ferraro, PJ. 2012. Experimental project designs in the Global Environment Facility: designing projects to create evidence and catalyze investments to secure global environmental benefits. Scientific and Technical Advisory Panel (STAP) of the Global Environment Facility (GEF). Washington, DC.
- 19. Zimsky, M, PJ Ferraro, F Mupemo, J Robinson, and N Sekhran. 2010. Results of the GEF Biodiversity Portfolio Monitoring and Learning Review Mission, Zambia: Enhancing outcomes and impact through improved understanding of protected area management effectiveness. Global Environment Facility-Secretariat, Washington, DC.

- 18. Banzhaf, HS and PJ Ferraro. 2010. Taxing the other smoke: pollution. Op-ed article in the *Atlanta Journal Constitution*. 16 March.
- 17. Ferraro, PJ. 2010. País que preserva o verde enriquece. *Revista Galileu*. Popular article in July edition.
- 16. Wunder, S, S Wertz-Kanounnikoff, PJ Ferraro. 2010. Payments for Environmental Services and the Global Environment Facility: A STAP advisory document. Prepared on behalf of the Scientific and Technical Advisory Panel (STAP) of the Global Environment Facility (GEF). Washington, DC.
- 15. Arriagada, R, EO Sills, SK Pattanayak, and PJ Ferraro. 2008. Evaluating initiatives with direct conservation payments: econometric analysis of the Costa Rican Program of payments for environmental services. *Sylvanet* 21: 24-31.
- 14. Asquith, N, S Wunder et al. 2008. Payments for watershed services: the Bellagio Conversations. Fundación Natura Bolivia: Santa Cruz de la Sierra
- 13. Ferraro, PJ. 2008. Protected areas and human well-being. In *Economics and Conservation in the Tropics: A strategic dialogue*. Conservation Strategy Fund, Moore Foundation, Resources for the Future.
- 12. Ferraro, PJ. 2007. Performance payments for sea turtle nest protection in low-income nations: a case study from Tanzania. January, National Marine Fisheries Service, La Jolla, CA.
- 11. Dillaha, T, PJ Ferraro, M Huang, D Southgate, S Upadhyaya, S Wunder. 2007. *Payments for watershed services: Regional synthesis*. United States Agency for International Development PES Brief 7, pp 18.
- 10. Ferraro, PJ. 2005. Are we getting what we paid for? The need for randomized environmental policy experiments in Georgia. *Georgia Water Policy & Planning Center Working Paper #2005-022*. [from 2001-2006, I also wrote another seven papers for the Georgia Water Policy & Planning Center (see www.h2opolicycenter.org)]
- 9. Hartshorn, G, PJ Ferraro, and B Spergel. 2005. *Evaluation of the World Bank GEF Ecomarkets Project in Costa Rica*. November, North Carolina State University.
- 8. Ferraro, PJ. 2004. *Direct payments to protect endangered ecosystems and experimental methods to estimate payment costs*. Prepared for the Twenty-First Biannual Workshop of the Economy and Environment Program for Southeast Asia (EEPSEA), Hanoi, May.
- 7. Ferraro, PJ. 2004. Assigning priority to ecosystem restoration investments in Georgia's Chickasawhatchee Swamp. *Georgia Water Policy & Planning Center Working Paper #2004-017*.
- 6. Ferraro, PJ, and A Kiss. 2003. Direct payments for biodiversity conservation. Reprinted in the *Himalayan Journal of Sciences*, 1(2) (August) [originally published in *Science*]

- 5. Ferraro, PJ. 2001. Cost-effective targeting of riparian buffers in Georgia when water quality benefits are difficult to measure. *Georgia Water Policy & Planning Center Working Paper #2001-005*.
- 4. Ferraro, PJ. 2001. Water quality protection and the cost-effective targeting of riparian buffers in Georgia. *Georgia Water Policy & Planning Center Working Paper #2001-004*.
- 3. Ferraro, PJ. 2001. Conservation performance payments: efficient investments for ecoregion conservation? *Sharing Across Boundaries* (A Publication of the Conservation Strategies Unit of World Wildlife Fund) 3: 3.
- 2. Ferraro, PJ, with R Tshombe, R Mwinyihali, and JA Hart. 1997. Projets intégrés de conservation et de développement: un cadre pour promouvoir la conservation et la gestion des ressources naturelles. *Wildlife Conservation Society Working Paper No. 6.* Bronx, N.Y.: Wildlife Conservation Society, 1997.
- 1. Parks, PJ and PJ Ferraro. 1994. Invited review of "Introduction to Ecological Economics: with Gaylord Nelson, Herman Daly, and John Cobb, Jr." *Society and Natural Resources* 7: 196-198.

FUNDED RESEARCH PROJECTS

United States Department of Agriculture, *USDA Center for Behavioral and Experimental Agri-*Environmental Policy Research (C-BEAR), \$1,280,000. 2014-2017.

United States Department of Agriculture, *Field Experiments with Program Agencies*, Principal Investigator, \$20,000. 2014-2017.

National Science Foundation, Dynamics of Coupled Natural and Human Systems (CNH) Program, *Enhancing Resilience of Coastal Ecosystems and Human Communities to Oceanographic Variability: Social and ecological feedbacks*, Co-Principal Investigator (PI: F. Micheli, Stanford University), \$1,400,000. 2012-2016.

International Development Research Centre, *Agua para consumo humano, comunidades y cambio climático: Impactos esperados y adaptación en América Central,* Co-Principal Investigator (PI: F. Alpízar, CATIE), \$1,501,770. 2012-2015.

World Wildlife Fund, *Northern Great Plains Ecoregion: incentives and evaluation*. Principal Investigator, \$46,194. 2008-2010.

United Nations Environment Programme, *Scientific and Technical Advisor Panel*. Principal Investigator, \$65,628. 2008-2009.

International Initiative for Impact Evaluation, Global Development Network, *The Impact of Energy Efficient Technology on Energy Consumption: a randomized experiment.* Proposal Preparation Grant, \$5,000, Co-Principal Investigator (PI: K. Andam, World Bank). 2008.

United States Department of Agriculture, *Agricultural Water Policy for Georgia*, Principal Investigator, \$129,215. 2006-2007.

National Science Foundation, Economics Program, *Private Provisions of Public Goods: Applying Matching Estimators to Evaluate 'Direct Payments' for Tropical Forest Conservation*, Co-Principal Investigator (PI: E. Sills), \$31,051. 2005-2007.

National Oceanic and Atmospheric Administration (National Marine Fisheries Service). *Evaluating the Effectiveness and Efficiency of Sea Turtle Conservation*, Principal Investigator, \$54,040, 2004-2006.

United States Department of Agriculture, *Agricultural Water Policy for Georgia*, Principal Investigator, \$837,429, 2004-2005.

Georgia State University Research Foundation, *Research Instrumentation Grant*, Co-Principal Investigator (PI: S. Laury), \$46,206, 2004.

Georgia State University Research Foundation, *Dynamics of Repeated Public Goods Games*, Principal Investigator \$10,000, 2002-2003.

Information about external funding received prior to 2001 is not included here but is available upon request (New York Water Resources Institute, Rainforest Alliance, William Lazar Foundation, Rhode Island Zoological Society, Biodiversity Support Program).

WORKSHOP/SEMINAR PRESENTATIONS (Invited Speaker)

2001: Resources for the Future; The Nature Conservancy; World Wildlife Fund

2002: North Carolina State University; Emory University

2004: Emory University; Davidson College

2005: Workshop on Payments for Environmental Services (PES) – Methods and design in developing and developed countries; Southwest Fisheries Science Center, U.S. National Marine Fisheries Service; Scripps Institute for Oceanographic Research/University of California-San Diego

2006: Valuing Wild Nature Workshop (co-sponsored by English Nature and Royal Society for the Protection of Birds); US Agency for International Development's International Symposium on Biodiversity Conservation in Agriculture; World Wildlife Fund; Conservation International (two presentations); Kinship Conservation Fellows Symposium (Kinship Foundation); Joint Committee Meeting of the Georgia Senate Natural Resources and the Environment Committee and the Georgia Senate Agriculture and Consumer Affairs Committee; Duke University, NC State University, University of North Carolina and RTI International; Duke University, Nicholas Institute; University of California-Santa Barbara, Bren School of Environmental Studies; Scripps Institute for Oceanographic Research/University of California-San Diego; Evaluation Office, The Global Environment Facility

2007: Scientific Workshop on Payments/Rewards for Environmental Services; Bellagio Workshop on Payments for Watershed Services; University of Minnesota; Georgia State University, Nonprofit Group Seminar Series; Georgia State University, Child Policy Seminar Series; Annual Environmental Evaluator's Forum, Environmental Protection Agency; Virginia Tech; Harvard University, Frontiers in Sustainable Development Speaker Series

2008: Environmental Protection Agency Expert Panel on Evaluating Partnership Programs; Moore Foundation Workshop on Economics and Conservation; University of Georgia, Warnell School Seminar Series; United Nations Environment Programme; World Bank Independent Evaluation Group/NORAD Evaluation Department Workshop on Evaluating REDD; University of Cambridge Global Assessment Workshop of 100 Questions of Greatest Importance to Conservation Policy and Practice; Georgia Water Wise Council; World Wildlife Fund Conservation Science Program Seminar Series; World Wildlife Fund Northern Great Plains Seminar Series

2009: Yale University; Fundación Cordillera Tropical (Ecuador); Global Environment Facility; Lincoln Institute of Land Policy; University of Florida; World Bank; International Fund for Agricultural Development; Annual Environmental Evaluator's Forum; University of Copenhagen; Global Environment Facility Council; Organization of Tropical Studies

2010: Cornell University; Center for International Forestry Research; University of California-Davis, Dept of Agricultural and Resource Economics; University of California-Davis, Dept of Environmental Science and Policy; Invited Panel, Tough Questions for Free Market Environmentalism at the Property and Environment Research Center; University of North Carolina-Chapel Hill, Curriculum in Ecology and Environment; Duke University; University of North Carolina-Chapel Hill, Department of Public Policy; University of Illinois, Champaign-Urbana (keynote speaker); Global Environment Facility/World Bank; North Carolina State University

2011: University of North Carolina-Chapel Hill; Cornell University; Global Environment Facility; Inter-American Development Bank (Rural Development Division and Environment Division); Centro Agronómico Tropical de Investigación y Enseñanza; University of Michigan; Stanford University; Inter-American Development Bank (Climate Change Division); London School of Economics (keynote speaker).

2012: Centro Agronómico Tropical de Investigación y Enseñanza; La Selva Biological Station, Organization for Tropical Studies; Odum School of Ecology, University of Georgia; Toulouse School of Economics; Resources for the Future; Environment for Development network (keynote speaker); World Agroforestry Centre (keynote speaker, Science Week).

2013: Consultative Group on Biological Diversity; Oregon State University; Centro Agronómico Tropical de Investigación y Enseñanza; University of Wyoming; US Environmental Protection Agency; Purdue University; L'Institut de Ciència i Tecnologia Ambientals (keynote speaker); US Agency for International Development, Sustainable Conservation Approaches in Priority

Ecosystems network (keynote speaker); American Evaluation Association (Invited Plenary Speaker).

2014: World Congress of Environmental and Resource Economists (invited panelist on field experiments with government agencies); Kinship Conservation Fellows Program; Johns Hopkins University; Bren School of Environmental Science & Management, UC-Santa Barbara; Voluntary Conservation under the ESA (invited panelist), Duke University; University of Michigan.

2015: University of Florida; University of Queensland; University of Tennessee; AAEA Workshop on Applying Behavioral and Experimental Economics to Food and Agri-Environmental Issues (keynote speaker); University of Georgia's 2nd Annual Sustainability Science Symposium (keynote speaker); Cambridge University Conference on Conservation Science (keynote speaker); Australian Conference of Economists (keynote speaker).

PRESENTATIONS AT PROFESSIONAL CONFERENCES (2000-present)

2000: Economic Science Association; International Association for the Study of Common Property Annual Meeting

2001: Northeastern Agricultural and Resource Economics Association Annual Meeting; Southern Economics Association Annual Meeting; Potencialidades de los sistemas silvopastoriles para la generación de servicios ambientales

2002: World Congress of Environmental and Resource Economists (two presentations); Land Use Policy Conference (sponsored by the Northeastern Agricultural and Resource Economics Association); Healthy Ecosystems, Healthy People: Linkages between Biodiversity, Ecosystem Health and Human Health; Society for Conservation Biology Annual Meeting; Southern Economics Association Annual Meeting;

2003: Rural Livelihoods, Forests and Biodiversity (co-sponsored by the Center for International Forestry Research (CIFOR), Germany's Ministry of Economic Cooperation and Development (BMZ), the German Foundation for International Development (DSE) and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)); Economic Science Association, International Meeting (two presentations); Southern Economics Association Annual Meeting (three presentations); Conference on International Financing of Biodiversity Conservation in Developing Countries

2004: Annual CAMP Resources Conference; Economic Science Association, North American Regional Meeting; Southern Economics Association Annual Meeting;

2005: Annual Symposium on Sea Turtle Biology and Conservation; Conference on Experimental Public Economics; Experimental Economics and Public Policy; Association of Environmental and Resource Economists Conference on Natural Resources at Risk

2006: Society for Conservation Biology Annual Meeting (two presentations); Economic Science Association International Meetings; Society for Conservation Biology Annual Meeting; Annual CAMP Resources Conference

2007: American Economic Association Annual Meeting; Association of Environmental and Resource Economists Conference on Valuation and Incentives for Ecosystem Services; American Agricultural Economics Association Annual Meeting

2009: American Economic Association Annual Meeting

2010: American Economic Association Annual Meeting; Georgia Association of Water Professionals

2011: American Economic Association Annual Meeting; Association of Environmental and Resource Economists Annual Summer Conference; Environmental Evaluators Network Forum; Southern Economics Association; Association for Public Policy Analysis and Management

2012: North American Congress for Conservation Biology; Association for Public Policy Analysis and Management

2013: Association of Environmental and Resource Economists Annual Summer Conference; International Congress for Conservation Biology; Association of Public Policy Analysis and Management.

2014: World Congress of Environmental and Resource Economists; North American Congress for Conservation Biology

SUPERVISION OF DISSERTATIONS AND MASTERS THESES

Post-Doctoral Advising

David H. Smith Conservation Research Fellow, Dr. Diogo Verissimo, 2014-2015 <u>Doctoral Thesis Committee Chair</u>

Voluntary Approaches to Environmental Protection, Toshihiro Uchida. August 2004.

Dissertation was awarded a GSU Dissertation Grant, the Resources for the Future Joseph L. Fisher Fellow award, and the Southern Economics Association Graduate Award.

Currently: Associate Professor, School of Economics, Chukyo University, Japan.

The Effect of Penalty Severity on Compliance Behavior, Vid Adrison. December 2007. Currently: Faculty of Economics, University of Indonesia, Jakarta, Indonesia.

Essays on the Evaluation of Land Use Policy: The Effects of Regulatory Protection on Land Use and Social Welfare, Kwaw Andam (PhD Public Policy). May 2008. Dissertation was awarded a GSU Dissertation Grant, the Resources for the Future Joseph L. Fisher Fellow award, and the Southeast Evaluation Association Graduate Award. Currently: World Bank Young Professionals Program, Washington, DC.

Essays on the Evaluation of Environmental Programs. Merlin Hanauer, May 2011.

Dissertation was awarded a GSU Dissertation Grant. Awarded two Outstanding Graduate

Student Teaching Awards and the Blicksilver Award for Excellence in Economics.

Currently: Assistant Professor, Sonoma State University.

Essays on Experimental and Quasi-experimental Policy Design and Evaluation. Juan Jose Miranda Montero, August 2012. Awarded a University Fellow award. Currently: Economics Unit, Sustainable Development Department, The World Bank.

Essays on Behavior, Experimental Designs and the Environment, Dustin Tracy, in progress Essays on Institutions and the Environment, Rhita Simorangkir, in progress.

Essays on Behavioral, Development and Urban Economics, Maria Bernedo, in progress.

Doctoral Thesis Committee Member

Essays on Ricardian Equivalence, Artidiantun Adji, December 2006.

Governmental Fragmentation and the Attainment of Environmental Quality, Peter Bluestone. December 2007.

Essays in Environmental Economics, Andrew Chupp, May 2009.

Evaluating El Programa Familias en Acción: household shocks and heterogeneous treatment effects. Monica Ospina, May 2010.

Essays in Environmental Auctions, William Holmes, August 2010.

Evolutionary Genetics of Color Linked to Behavior in Cleaning Gobies, Liliana Letteri (Georgia Tech, Department of Biology), August 2010.

Essays in Conservation Contracting, Rohit Jindal (Michigan State University), Dec 2010.

A Hydro-economic Model for Water Resources Allocation. Fred Kimaite (Georgia Tech, School of Civil and Environmental Engineering), May 2011.

Direct Approaches in Payments for Environmental Services: designing and assessing success factors and constraints. Beria Leimoina (Wageningen University), December 2011.

Incorporating Socio-economic Considerations into Systematic Conservation Planning, Vanessa Adams (James Cook University), December 2011. External examiner.

On the implementation effectiveness and efficiency of ecological interventions in operational contexts: the case of Working for Water, Matthew McConnachie (Rhodes University), June 2012. External examiner.

Essays on the Economics of Ecosystem Conservation, Payal Shah (University of Illinois-Champaign-Urbana), May 2013.

Essays on Evaluating the Impacts of Institutions on Environmental and Economic Outcomes. Elizabeth Gooch, January 2014.

Essays in Environmental and Labor Economics, Mark Curtis, May 2014.

Essays on the Performance of Protected Areas, Christoph Nolte (University of Michigan), December 2014.

Evaluating Occupational Outcomes and Interventions in Schools, Julia Manzella, in progress.

Masters Thesis Chair, Ultimatum Game with Robots, Ju Hsieh, August 2006.

Internet & Local Wages across Matched Localities, Adam Smith, May 2013

Masters Paper Co-Chair, Economic Growth, Infrastructure and Institutional Efficiency: A Case of Indonesia, Muhammad Yusri Zamhuri, completed May 2003.

<u>Masters Thesis External Examiner</u>, *Social Comparisons and Energy Conservation*, Grant Smith, University of Cape Town.

Committee Reader on 9 dissertation committees.

SERVICE ACTIVITIES INTERNAL TO THE UNIVERSITY

Chair, Faculty Recruiting Committee, Economics (Assoc/Full Prof), 2014-15; Member, University Promotion and Tenure Advisory Panel, 2013-present; Member, Faculty Recruiting Committee, School of Public Health (Assoc/Full Prof), 2014-15; Member, Faculty Member, PhD Graduate Admission Committee, Public Policy, 2010-present; Member, Department of Economics' Undergraduate Program Committee, 2004-present; Member, Associate Professor Evaluation Committee, 2013-present; Chair, Faculty Recruiting Committee, Economics (Assistant Professor), 2013-14; Chair, Introduction to Economics Textbook Committee, 2013-14; Co-chair, Faculty Recruiting Committee, Criminology/Criminal Justice (Assoc/Full Professor), 2012-2013; Member, Selection Committee for 2012 Georgia State University Award for Global Engagement; Member, Department of Economics' Educational Policy Committees (Vice-Chair of Committee for Environmental, Urban and Regional Economics; Economic Development; Experimental), 2001-present; Member, Andrew Young School of Policy Studies Management Committee, 2010-2012; Member, Andrew Young School of Policy Studies' Dean Search Committee, 2010; Member, Provost's Committee to Evaluate University's Second Century Initiative Proposals, 2010, 2011; Co-chair, Faculty Recruiting Committee, Performance Management/Program Evaluation (Assoc/Full Professor), 2010-2012; Co-chair, Faculty Recruiting Committee, Education Policy (Full Professor), 2010-2011; Chair, Faculty Recruiting Committee, Policy Field Experiments (Assoc Professor), 2010-2012; Co-Chair, Focal Area of Excellence in Evidence-based Policy and Public Performance Management, 2009 (co-wrote successful proposal for center of excellence in evidence-based policy); Member, Ad Hoc Tenure Standards Review Committee, 2009; Member, Andrew Young School Dean Search Committee, 2008-2009; Member, Faculty Recruiting Committee, Econometrics (Assoc/Full Professor), 2008-2009; Member, Department of Economics Chairperson Selection Committee, 2009; Chair, Andrew Young School Ad Hoc Environmental Action Committee, 2008; Member, Andrew Young School of Policy Studies' Advisory Committee for Visiting Faculty program, 2008-2011; Member, Department of Economics Assistant Professor Performance Evaluation Committee, 2008; Member, GSU Senate Cultural Diversity Committee, 2004-2007; Member, GSU Senate Administrative and Support Unit Review Committee, 2004-2005; Member, GSU Senate Cultural Diversity Sub-committee, African-American Male Initiative, 2004-2007; Member, Search Committee for the Noah Langdale Chaired Professorship in the Department of Economics, 2004-2005; Member. Faculty Recruiting Committee, Environmental Economics (Asst/Assoc Professor), 2007-2008;

Member, Faculty Recruiting Committee, Environmental Economics (Asst/Assoc Professor), 2005-2006; Member, Faculty Recruiting Committee, Environmental and Experimental Economics (Asst Professor), 2001-2002; Member, Faculty Recruiting Committee, Environmental and Experimental Economics (Assoc Research Professor), 2001-2002; Faculty Advisor, GSU Economics Club, 2004-2007; Faculty Advisor, GSU chapter of the Omicron Delta Epsilon Honors Society, 2004-2011; Coordinator, Department of Economics seminar series scheduling, 2003-2011; Department Liaison, Institutional Review Board protocols, 2007-2012. Department Captain, State Charitable Contributions Campaign, 2003 (97% participation rate); Third-Year Student Best Paper Panel, 2011; Mock Graduate Student Interviews, 2002-present); Annual Graduate Seminar on Giving a Good Presentation, 2009-present; Received support to run a randomized experiment to test the effectiveness of early intervention and strength-based advising in improving undergraduate retention, progression and graduation in the Andrew Young School of Policy Studies, 2006-2008.

SERVICE ACTIVITIES IN ACADEMIC AND PROFESSIONAL ORGANIZATIONS

Advisory Boards

Member, Atlanta Regional Commission Technical Advisory Group (2009); Member, Advisory Group, Collaboration for Environmental Evidence (2009 – present); Member, Conservation Strategy Fund (2009-present); Member, Association of Environmental and Resource Economists (2010-2012); Member, Center for the Management of Ecological Wealth, Resources for the Future, 2012-present

Program Committees

Co-organizer, Symposium *Direct Payments as an Alternative Conservation Investment*, Society for Conservation Biology Annual Meeting, 2002; Member, Organizing and Host Committee for 2006 International Meetings of the Economic Science Association, 2006; Co-organizer, Symposium *How Do We Know It's Working? State-of-the-Art in Program Evaluation and Implications for Conservation Science and Policy*. Society for Conservation Biology Annual Meeting, 2006; Member, Program Advisory Group, Second Annual Environmental Evaluator's Networking Forum, 2007; Organizer, Workshop *Measuring the performance of protected area systems: challenges and opportunities*, Global Environment Facility, 2010; Program Committee, Inaugural Summer Conference of the Association of Environmental and Resource Economists, 2011; Organizer, Symposium *Causal Effects and Mechanisms of Protected Areas on Poverty*, North American Congress for Conservation Biology, 2012.

Chair of Program Sessions

Organizer/Chair, Experimental Analyses of Inter-Ethnic and Inter-Racial Effects on Economic Behavior, Southern Economic Association Annual Meeting, 2003; Organizer/Chair, Learning and Group Dynamics, Southern Economic Association Annual Meeting, 2004; Chair, Environmental Sociology, Society for Conservation Biology Annual Meeting, 2006; Chair,

Corporate Environmental Behavior, American Agricultural Economics Association, 2007; Chair, Globally Important Conservation Policy Questions, University of Cambridge Assessment of 100 Questions of Greatest Importance to Conservation Policy and Practice, 2008

Panelist/Discussant

Discussant, Economic Science Association International Meetings, 2000; Discussant, AERE Workshop Assessing and Managing Environmental and Public Health Risks, 2001; Discussant, Annual Meetings of the Southern Economics Association, 2001; Invited Panelist, Workshop on Integrated Ecosystem Management and Incentives for Biodiversity Conservation in Africa, 2002; Discussant, Southern Economics Association Meetings, 2002; Discussant, Southern Economic Association Annual Meeting, 2003; Invited Panelist, National Academy of Sciences and the U. S. National Committee of the International Union of Biological Sciences (IUBS) Workshop on Human Dimensions of Biodiversity, 2003; Discussant, Workshop on International Financing of Biodiversity Conservation in Developing Countries, 2003; Discussant, Southern Economic Association Annual Meeting, 2004 (2x); Discussant, Conference on Experimental Public Economics, 2005; Invited Panelist, NIH Fogarty International Cooperative Biodiversity Group (ICBG), 2005; Invited Panelist, Kinship Conservation Fellows Symposium, 2006; Invited Panelist, Workshop on Payments for Watershed Services: building on pilot experiences to mainstream a tool for sustainable conservation and development, 2007; Discussant, American Agricultural Economics Association Annual Meeting, 2007; Invited Panelist, Environmental Protection Agency Expert Panel on Evaluating Partnership Programs, 2008; Invited Panelist, World Bank Independent Evaluation Group/NORAD Evaluation Department Workshop on Evaluating REDD, 2008; Invited Panelist, Combining Environmental and Development Goals: strategies for moving forward, Joint Panel of American Economic Association/Association of Environmental & Resource Economists, 2010; Invited Panelist, Managing the Chesapeake Bay and its Complexity, Environmental Evaluators Network Forum, 2011; Discussant, Association for Public Policy Analysis and Management, 2012; Discussant, American Economic Association, 2015.

Referee and Editing

National Science Foundation; National Institute of Health; Center for International Forestry Research; David H. Smith Conservation Research Fellowship; Ecosystem Services for Poverty Alleviation Fellow Program; Edward Elgar Publishing House; Global Environment Facility; U.S. Environmental Protection Agency, Office of Program Evaluation; Food and Agriculture Organization; Georgia Tech Water Resources Institute; United Nations Environment Programme; Blackwell Publishing; Island Press; Oxford University Press; Palgrave MacMillan Press; Routledge Press; Economy and Environment Program for Southeast Asia; Social Sciences and Humanities Research Council of Canada; Millennium Ecosystem Assessment; United States Department of Agriculture; Conservation International; Echoing Green Foundation; Land and Water Australia; Latin American and Caribbean Environmental Economics Program; Le Fonds

Français pour l'Environnement Mondial; South Asian Network for Development and Environmental Economics; World Wildlife Fund Kathryn Fuller Science for Nature Fund Fellowship Program; University of Wyoming Agricultural Experiment Station; International Initiative for Impact Evaluation (3ie; referee and external advisor); Agricultural and Resource Economics Review; Agroforestry Systems; American Economic Review; American Journal of Agricultural Economics; Biodiversity and Conservation; Biological Conservation; Bioscience; Conservation Biology; Conservation Letters; Ecological Economics; Ecology Letters; Ecology and Society; Economic Inquiry; Economics Bulletin; Energy Policy; Environment and Development Economics; Environmental and Resource Economics; Environmental Conservation; Environmental Economics and Policy Studies; Environmental Evidence; Environmental Management; Environmental Research Letters; European Review of Agricultural Economics; Experimental Economics; Forest Policy and Economics; Forest Science; Frontiers in Ecology and the Environment; The Geographical Journal; Global Environmental Change; IEEE Transactions on Computers; Journal of the Association of Environmental and Resource Economists; Journal of Cultural Economics; Journal of Economic Psychology; Journal of Environment; Journal of Environmental Management; Journal of Environmental Economics and Management; Journal of Forestry Economics; Journal of Policy Analysis and Management; Journal of Public Economics; Journal of Soil and Water Conservation; Journal of Wildlife Management; Land Economics; Land Use Policy; Management Science; Nature; Natural Resource Modeling; Oryx - The International Journal of Conservation; PLoS Biology; Proceedings of the National Academy of Sciences; Public Finance Review; Resource and Energy Economics; Review of Agricultural Economics; The Review of Economics and Statistics; Review of Environmental Economics and Policy; Science; Social Science Quarterly; Society and Natural Resources; Southern Economic Journal; World Development.

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

Association of Public Policy Analysis and Management; American Agricultural Economics Association, American Association for the Advancement of Science, American Economic Association, Association of Environmental and Resource Economists, Economic Science Association, Society for Conservation Biology, Southern Economic Association.

LANGUAGES AND INTERNATIONAL WORK EXPERIENCE

Intelligible (but not pretty) French, Malagasy and Spanish. Worked in: Australia, Costa Rica, Ecuador, Madagascar, Mexico, Tanzania, Ukraine, United States, Zaïre (Congo), Zambia.

MEDIA

Research profiled by National Public Radio (2002, 2007, 2011), *The New York Times* (2006, 2007), *Nature* (2002, 2009, 2010), *Science, New Scientist* (2005, 2007), *The Economist, CBS Moneywatch, Science News, Huffington Post, Atlanta Journal Constitution, PLoS Biology, Newsday, Sydney Morning Herald, Conservation, World Conservation Magazine, Mother*

Jones, Ethical Corporation, Ecosystem Marketplace, Houston Daily Journal, 南方周末 (Southern Weekly), Revista Galileu, Greenwire news, Inside Higher Ed, The Australian Broadcasting Corporation, de Volkskrant (Dutch newspaper), Vista Verde News – Natur & Tiere, SciDev.net (2002, 2010, 2014), International Ecotourism Monthly, Environmental Research Web (2008, 2010), Mongabay, Nature World News, Science20, Science Newsline, RedOrbit, Georgia State Magazine (2003, 2006, 2009), Nachrichten aus der Wissenschaft – Aktuelles aus Forchung und Technik, Sustainable Development Update, The Signal, Tangents, WRES (Boston), WRAS (Atlanta), and Radioline.

LOCAL COMMUNITY

Decatur Education Foundation/City of Decatur Schools Volunteer of the Year Award, 2011; Phoenix School Volunteer of the Year Award, 2007; Member and Chair, Charter System School Leadership Team (Winnona Park Elementary School; Renfore Middle School).