

## JOHN K. STRANLUND

### CONTACT

John Stranlund

Department of Resource Economics

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<http://www.umass.edu/resec/faculty/stranlund/>

### EDUCATION

Ph.D. University of California, Santa Barbara, Department of Economics, 1992.

M.A. University of California, Santa Barbara, Department of Economics, 1988.

B.A. Westmont College, Fine Arts, 1983.

### RESEARCH AND TEACHING INTERESTS

#### *Primary*

Environmental and Natural Resource Economics

#### *Secondary*

Microeconomics/Game Theory

Public Economics

### ACADEMIC POSITIONS

#### *Professor*

Department of Resource Economics, University of Massachusetts, Amherst. Since 2006.

*College of Natural Resources and the Environment 2006 Outstanding Achievement Award for Research*

#### *Associate Professor and Graduate Program Director*

Department of Resource Economics, University of Massachusetts, Amherst. 1999 to 2006.

#### *Assistant Professor*

Department of Resource Economics, University of Massachusetts, Amherst. 1993 to 1999.

#### *Faculty*

Center for Public Policy and Administration, University of Massachusetts, Amherst. 1999 to present.

#### *Affiliated Faculty*

Environmental Sciences Program. University of Massachusetts, Amherst. 1993-present.

#### *Visiting Assistant Professor*

Department of Economics, University of Nevada, Las Vegas. 1992-1993.

#### *Lecturer*

Department of Economics, University of California, Santa Barbara. 1988-1992.

Department of Environmental Studies, University of California, Santa Barbara. 1991-1992.

### PROFESSIONAL AFFILIATIONS

Editorial Board Member, *Journal of Regulatory Economics*

American Economic Association

Association of Environmental and Resource Economists

**RESEARCH***Grants and Contracts*

- Moffitt, L. Joe (PI) and John K. Stranlund. "Economics of Discovery Alternatives for Emerging Animal Diseases." USDA Economic Research Service. \$147,000, 2008-2010.
- Stranlund, John K. (PI), James Murphy, John Spraggon, Timothy Cason, Vernon Smith, Stephen Rassenti, David Porter. "Experimental Testbeds for New Applications of Environmental Trading Programs." U. S. Environmental Protection Agency—Science to Achieve Results. \$987,125. 2008-2011.
- Chavez, Carlos (PI), Walter Gomez and John K. Stranlund (Foreign Investigator). "Política Ambiental con Regulación Imperfecta: Teoría y Aplicación al Problema de Contaminación del Aire en el Centro-Sur de Chile ("Environmental Policy Under Imperfect Regulation: Theory and Application to the Pollution Problem in Central-Southern Chile). Comisión Nacional de Investigación Científica y Tecnológica, Gobierno de Chile. Approximately US\$65,000. 2008-2010.
- Tisdell, John (PI), James J. Murphy and John K. Stranlund. "Issues of Enforcement and Regulation in the Application of Market-Based Instruments." Australian National Market-Based Instruments Program Projects. AU\$320,000 (~US\$225,000). 2007-2008.
- Chavez, Carlos (PI), Mauricio Villena, and John K. Stranlund (Foreign Investigator). "Política Ambiental con Costos de Fiscalización (Environmental Policy with Enforcement Costs)." Comisión Nacional de Investigación Científica y Tecnológica, Gobierno de Chile. Approximately US\$35,000. 2006-2007.
- Murphy, James J. and John K. Stranlund. "A Theoretical and Experimental Analysis of Voluntary Approaches to Environmental Protection." University of Massachusetts Center for Public Policy and Administration, Faculty Development Grant. \$7,500. 2006-2007.
- Moffitt, L. Joe (PI); Barry Field and John K. Stranlund. "Robust Inspection for Invasive Species with a Limited Budget." U.S. Department of Agriculture-Economic Research Service. 2004-2006. \$135,000.
- Stranlund, John (PI) and James Murphy. "Economic and Policy Analysis of Local Governance in Latin America." U.S. Department of State, Bureau of Educational and Cultural Affairs. 2003-2006. \$120,000.
- Murphy, James (PI) and John Stranlund. "An Investigation of Compliance Behavior and Enforcement of Emissions Trading Programs Using Laboratory Experiments." U.S. Environmental Protection Agency—Science to Achieve Results. 2002-2005. \$228,000.
- Stranlund, John (PI) and Barry Field. "Economic Issues in the Enforcement of Market-Based Approaches to Environmental Policies." Smith Richardson Foundation. 1998-2000. \$43,849.
- Stranlund, John (PI) and Cleve Willis. "Economic Research on Cross-Media Transfers of Pollution and Risk." U.S. Environmental Protection Agency. 1997-2000. \$61,445.
- Stranlund, John. "Environmental Policy and Cross-Media Transfers of Pollution." Healey Public Service Endowment Grant, University of Massachusetts, Amherst. 1997-1998. \$5,000.

Field, Barry and John Stranlund. "Impact Analysis: Proposed Changes in Subsurface Sewage Disposal System Regulations Under Title 5 of the Environment Code." Massachusetts Department of Environmental Protection. 1994. \$12,000.

### ***Refereed Journal Articles***

Chavez, Carlos A., Mauricio G. Villena, and John K. Stranlund. 2009. "The Choice of Policy Instruments to Control Pollution under Costly Enforcement and Incomplete Information." Forthcoming in the *Journal of Applied Economics*.

Chavez, Carlos A., and John K. Stranlund. 2009. "A Note on Emissions Taxes and Incomplete Information." *Environmental and Resource Economics* 44(1), 137-144.

Stranlund, John K.; Carlos A. Chavez, and Mauricio G. Villena. 2009. "The Optimal Pricing of Pollution When Enforcement is Costly." *Journal of Environmental Economics and Management* 58(2), 183–191.

Velez, Maria Alejandra; John K. Stranlund and James J. Murphy. 2009. "What Motivates Common Pool Resource Users? Experimental Evidence from the Field." *Journal of Economic Behavior and Organization* 70(3), 485-497.

McEvoy, David M. and John K. Stranlund, 2009. "Self-Enforcing International Environmental Agreements with Costly Monitoring for Compliance." *Environmental and Resource Economics* 42(4), 491-508.

Velez, Maria Alejandra; James J. Murphy, and John K. Stranlund. 2008. "Centralized and Decentralized Management of Local Common Pool Resources in the Developing World: Experimental Evidence from Fishing Communities in Colombia." Forthcoming in *Economic Inquiry*. Published online April 17, 2008.

L. Joe Moffitt, John K. Stranlund and Craig D. Osteen. 2008. "Robust Detection Protocols for Uncertain Introductions of Invasive Species." *Journal of Environmental Management* 89(4), 293–299.

Stranlund, John K. and Wei Zhang. 2008. "Bankruptcy Risk and the Performance of Tradable Permit Markets." *Economics Bulletin* 17(9), 1-9.

Stranlund, John K. 2008. "Risk Aversion and Compliance in Markets for Pollution Control." *Journal of Environmental Management* 88(2), 203-210.

Stranlund, John K. and Yakov Ben-Haim. 2008. "Price-Based vs. Quantity-Based Environmental Regulation under Knightian Uncertainty: An Info-Gap Robust Satisficing Perspective." *Journal of Environmental Management* 87(3), 443–449.

Stranlund, John K. 2007. "The Regulatory Choice of Noncompliance in Emissions Trading Programs." *Environmental and Resource Economics* 38(1), 99-117.

Murphy, James J. and John K. Stranlund. 2007. "A Laboratory Investigation of Compliance Behavior under Tradable Emissions Rights: Implications for Targeted Enforcement." *Journal of Environmental Economics and Management* 53(2), 196-212.

- Murphy, James J. and John K. Stranlund. 2006. "Direct and Market Effects of Enforcing Emissions Trading Programs: An Experimental Analysis." *Journal of Economic Behavior and Organization* 61(2), 217-233.
- Wu, Kai; Anna Nagurney, Zugang Liu, and John K. Stranlund. 2006. "Modeling Generator Power Plant Portfolios and Pollution Taxes in Electric Power Supply Chain Networks: A Transportation Network Equilibrium Transformation." *Transportation Research Part D: Transport and Environment* 11(3), 171-190.
- Moffitt, L. Joe; John K. Stranlund and Barry C. Field. 2005. "Inspections to Avert Terrorism: Robustness under Severe Uncertainty." *Journal of Homeland Security and Emergency Management* 2(3), Article 3. <http://www.bepress.com/jhsem/vol2/iss3/3>.
- Stranlund, John K.; Christopher Costello and Carlos A. Chavez. 2005. "Enforcing Emissions Trading When Emissions Permits are Bankable." *Journal of Regulatory Economics* 28(2), 181-204.
- Auffhammer, Maximilian; Bernard Morzuch and John K. Stranlund. 2005. "Production of Chlorofluorocarbons in Anticipation of the Montreal Protocol." *Environmental and Resource Economics* 30(4), 377-391.
- Chavez, Carlos A. and John K. Stranlund. 2003. "Enforcing Transferable Permit Systems in the Presence of Market Power." *Environmental and Resource Economics* 25(1), 65-78.
- Stranlund, John K.; Carlos A. Chavez and Barry Field. 2002. "Enforcing Emissions Trading Programs: Theory, Practice and Performance." *Policy Studies Journal* 30(3), 343-361. Reprinted in *Making Law Work: Environmental Compliance and Sustainable Development, Volume II*. 2005. Durwood Zaelke, Donald Kaniaru and Eva Kruzikova (eds.), Cameron May Ltd., London.
- Cardenas, Juan Camilo; John K. Stranlund and Cleve Willis. 2002. "Economic Inequality and Burden-Sharing in the Provision of Local Environmental Quality." *Ecological Economics* 40(3), 379-395.
- Cardenas, Juan Camilo; John K. Stranlund and Cleve Willis. 2000. "Local Environmental Control and Institutional Crowding-Out." *World Development* 28(10), 1719-1733.
- Stranlund, John K. and Carlos Chavez. 2000. "Effective Enforcement of a Transferable Emissions Permit System with a Self-Reporting Requirement." *Journal of Regulatory Economics* 18(2), 113-131.
- Stranlund, John K. and Kathy Dhanda. 1999. "Endogenous Monitoring and Enforcement of a Transferable Emissions Permit System." *Journal of Environmental Economics and Management* 38(3), 267-282.
- Stranlund, John K. 1999. "Bargaining to Preserve a Unique Eco-System: The Role of Anticipatory Investments to Establish Stronger Bargaining Positions." *Ecological Economics* 31(3), 425-437.
- Stranlund, John K. 1999. "Sunk Capital and Negotiated Resolutions of Environmental Conflicts." *Land Economics* 75(1), 142-155.
- Stranlund, John K. 1997. "Public Technological Aid to Support Compliance to Environmental Standards." *Journal of Environmental Economics and Management* 34(3), 228-239.

- Richer, Jerrell and John K. Stranlund. 1997. "Threat Positions and the Resolution of Environmental Conflicts." *Land Economics* 73(1), pp. 58-71.
- Nagurney, Anna; Kathy Dhanda and John Stranlund. 1997. "A General Multiproduct, Multipollutant Market Pollution Permit Model: A Variational Inequality Approach." *Energy Economics* 19(1), pp. 57-76.
- Stranlund, John K. 1996. "On the Strategic Potential of Technological Aid in International Environmental Relations." *Journal of Economics-Zeitschrift fur Nationalokonomie* 64(1), 1-22.
- Stranlund, John K. 1995. "Public Mechanisms to Support Compliance to an Environmental Norm." *Journal of Environmental Economics and Management* 28(2), 205-222. Reprinted in *The Economics of Environmental Monitoring and Enforcement*. 2003. Clifford Russell (ed.), Ashgate Publishing.

### ***Book Chapters and Reprints***

- Moeltner, Klaus; James J. Murphy, John K. Stranlund, and Maria Alejandra Velez. 2009. "Institutional Heterogeneity in Social Dilemma Games: A Bayesian Examination." Forthcoming in the *Handbook on Experimental Economics and the Environment*, John List and Michael Price (eds.), Edward Elgar Publishing.
- Stranlund, John K., James J. Murphy and John M. Spraggon. 2009. "Imperfect Enforcement of Emissions Trading and Industry Welfare: A Laboratory Investigation." Forthcoming in the *Handbook on Experimental Economics and the Environment*, John List and Michael Price (eds.), Edward Elgar Publishing.  
<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2008-1.pdf>
- Lopez, Maria Claudia; James J. Murphy, John M. Spraggon and John K. Stranlund. 2009. "Does Government Regulation Complement Existing Community Efforts to Support Cooperation? Evidence from Field Experiments in Colombia." Forthcoming in the *Handbook on Experimental Economics and the Environment*, John List and Michael Price (eds.), Edward Elgar Publishing.  
<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2008-4.pdf>
- Woolley, Trisha; Anna Nagurney, and John Stranlund. 2009. "Spatially Differentiated Trade of Permits of Multipollutant Electric Power Supply Chains." In *Optimization in the Energy Industry*. J. Kallrath, P. Pardalos, S. Rebennack, and M. Schei (eds.). Springer.
- Murphy, James J. and John K. Stranlund. 2008. "An Investigation of Voluntary Discovery and Disclosure of Environmental Violations Using Laboratory Experiments." *Experimental Methods in Environmental Economics*. Todd Cherry, Jason Shogren and Stephan Kroll (eds.) Routledge Publishing.
- Moffitt L. Joe, John K. Stranlund, Barry C. Field, and Craig D. Osteen. 2007. "Robust Inspection for Invasive Species with a Limited Budget." In *New Approaches to the Economics of Plant Health*. Alfons Oude Lansink (ed.). Springer.
- Stranlund, John K.; Carlos A. Chavez and Barry Field. 2005. "Enforcing Emissions Trading Programs: Theory, Practice and Performance." In *Making Law Work: Environmental Compliance and Sustainable Development, Volume II*. 2005. Durwood Zaelke, Donald Kaniaru and Eva Kruzikova (eds.). Cameron May Ltd., London. Reprinted from article in *Policy Studies Journal* 30(3), 343-361, 2002.

Stranlund, John K. 2003. "Public Mechanisms to Support Compliance to an Environmental Norm." In *The Economics of Environmental Monitoring and Enforcement*. 2003. Clifford Russell (ed.), Ashgate Publishing. Reprinted from article in *Journal of Environmental Economics and Management* 28(2), 205-222, 1995.

Cardenas, Juan-Camilo; John K. Stranlund and Cleve E. Willis. 2001. "Should the State Regulate the Local Commons? Lessons from Economic Experiments in the Field." In *Integrated Conservation and Development in Tropical America: Experiences and Lessons in Linking Communities, Projects, and Policies*, Robert E. Rhoades and Jody Stallings (eds.). SANREM CRSP, Athens, Georgia and CARE SUBIR, Ecuador.

### **Articles under Review**

Stranlund, John K. and Wei Zhang. 2009. "Bankruptcy Risk and Imperfectly Enforced Emissions Taxes." Under review at *Economics Bulletin*.

<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2008-3.pdf>

McEvoy, David and John K. Stranlund, 2009. "Costly Enforcement of Voluntary Environmental Agreements with Industries." Revised and resubmitted to *Environmental and Resource Economics*.

[http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2007-11\\_000.pdf](http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2007-11_000.pdf)

Stranlund, John K. 2009. "A Safety Valve for Emissions Trading." Under review at *Journal of Environmental Economics and Management*.

<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2009-4.pdf>

L. Joe Moffitt, John K. Stranlund and Craig D. Osteen. 2009. "Securing the Border from Invasives: Robust Inspections under Severe Uncertainty." Under review at *American Journal of Agricultural Economics*.

<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2009-6.pdf>

McEvoy, David; James J. Murphy, John M. Spraggon and John K. Stranlund. 2009. "The Problem of Maintaining Compliance in Stable Coalitions." Under review at *Oxford Economic Papers*.

<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2008-2.pdf>

Lopez, Maria Claudia; James J. Murphy, John M. Spraggon and John K. Stranlund. 2009. "Comparing the Effectiveness of Regulation and Pro-Social Emotions to Enhance Cooperation: Experimental Evidence from Fishing Communities in Colombia." Under review at *Economic Inquiry*.

<http://people.umass.edu/resec/workingpapers/documents/ResEcWorkingPaper2009-5.pdf>

### **Other Working Papers**

Moeltner, Klaus; James J. Murphy, John K. Stranlund, and Maria Alejandra Velez. 2008. "Analyzing Data from Social Dilemma Experiments: A Bayesian Comparison of Parametric Estimators."

Stranlund, John K. 2008. "Should Emissions Taxes Be Implemented So Firms Evade Them? The Effects of Noncompliance, Risk Aversion, and Uncertain Punishment on Enforcement."

Stranlund, John K. and Barry C. Field. 2006. "On the Production of Homeland Security under True Uncertainty."

<http://courses.umass.edu/resec/workingpapers/documents/resecworkingpaper2006-5.pdf>.

Velez, Maria Alejandra; James J. Murphy, and John K. Stranlund. 2006. "Within and Between Group Variation of Individual Strategies in Common Pool Resources: Evidence from Field Experiments."

<http://courses.umass.edu/resec/workingpapers/documents/resecworkingpaper2006-4.pdf>.

Chavez, Carlos and John K. Stranlund. 2004. "Enforcing Transferable Permit Systems in the Presence of Transaction Costs."

<http://courses.umass.edu/resec/workingpapers/documents/resecworkingpaper2004-3.pdf>

### ***Grant Reports***

Moffitt, L. Joe, John K. Stranlund and Barry C. Field. "Robust Inspection for Invasive Species with a Limited Budget." Grant report to the United States Department of Agriculture, Economic Research Service under USDA/ERS/PREISM Cooperative Agreement No. 43-3AEM-4-80115. December 2007.

Murphy, James J. and John K. Stranlund. "An Investigation of Compliance Behavior and Enforcement of Emissions Trading Programs Using Experimental Analyses." Grant report submitted to the U.S. Environmental Protection Agency. August 2005.

Dombrowski, Janine; Nicholas Bouwes, John K. Stranlund and Cleve Willis. "Cross-Media Transfers of Emissions and Risk." Grant report submitted to the U.S. Environmental Protection Agency. October 2000.

Stranlund, John K.; Carlos A. Chavez and Barry Field. "Enforcing Market-Based Pollution Control Programs: Practice and Theory." Grant report submitted to the Smith-Richardson Foundation. April 2000.

### ***Other Publications***

Stranlund, John K.; James J. Murphy, and John M. Spraggon. 2009. "An Experimental Analysis of Compliance in Dynamic Emissions Markets: Some Preliminary Results." *Market Mechanisms and Incentives: Applications to Environmental Policy. Proceedings of a Workshop Sponsored by the US Environmental Protection Agency's National Center for Environmental Economics and National Center for Environmental Research*, April 29.

Murphy, James J. and John K. Stranlund. 2003. "An Experimental Analysis of Compliance Behavior in Emissions Trading Programs: Some Preliminary Results." *Market Mechanisms and Incentives: Applications to Environmental Policy. Proceedings of a Workshop Sponsored by the US Environmental Protection Agency's National Center for Environmental Economics and National Center for Environmental Research*, May 1-2.

Stranlund, John K. 1999. "Review of Global Environmental Economics by Hans Gottinger." *Journal of Economics-Zeitschrift fur Nationalokonomie* 69(3), 303-305.

### ***Invited Presentations and Seminars***

- Stranlund, John K.; James J. Murphy, and John M. Spraggon. "An Experimental Analysis of Compliance in Dynamic Emissions Markets: Some preliminary Results." Department of Economics, University of Alaska-Anchorage, May 28, 2007.
- Stranlund, John K.; James J. Murphy, and John M. Spraggon. "An Experimental Analysis of Compliance in Dynamic Emissions Markets: Theory and Experimental Design." US EPA Workshop on Market Mechanisms and Incentives: Applications to Environmental Policy Workshop. Washington DC. April 29, 2009.
- Stranlund, John K.; Carlos A. Chavez, and Mauricio G. Villena. "The Optimal Pricing of Pollution When Enforcement is Costly." Departamento de Economía, Universidad de Concepción, Concepción, Chile. March 19, 2009.
- Stranlund, John K. "Can Government Regulation Promote Conservation Among Small-Scale Resource Users in the Developing World?" First Workshop of Latin American Field Experiments Network, Universidad de los Andes, Bogota, Colombia. November 20, 2008.
- Stranlund, John K. "Cap-and-Trade Policies for the Protection of the Environment." Master en Economía de la Universidad de Montevideo, Uruguay. November 14, 2008.
- Stranlund, John K.; Carlos A. Chavez, and Mauricio G. Villena. "The Optimal Pricing of Pollution When Enforcement is Costly." Facultad de Ciencias Empresariales y Economía, Universidad de Montevideo, Montevideo, Uruguay. November 13, 2008.
- Stranlund, John K.; Carlos A. Chavez, and Mauricio G. Villena. "The Optimal Pricing of Pollution When Enforcement is Costly." Department of Economics, Appalachian State University. October 24, 2008.
- Stranlund, John K.; Carlos A. Chavez, and Mauricio G. Villena. "The Optimal Pricing of Pollution When Enforcement is Costly." Department of Agricultural and Resource Economics, University of California at Berkeley. October 12, 2007.
- Stranlund, John K., James J. Murphy, and John M. Spraggon. "A Laboratory Investigation of the Welfare Effects of Imperfectly Enforced Emissions Trading." Advanced Workshop on Regulation and Competition, 20<sup>th</sup> Annual Western Conference. Monterey, California. June 27-29, 2007.
- Stranlund, John K. "The Regulatory Choice of Noncompliance in Emissions Trading Programs." Department of Economics, University of Alaska-Anchorage, May 31, 2007.
- Stranlund, John K., James J. Murphy, and John M. Spraggon. "A Laboratory Investigation of Imperfectly Enforced Emissions Trading." Seminar in Environmental Economics and Policy, Harvard University, April 25, 2007.
- Stranlund, John K. "The Regulatory Choice of Noncompliance in Emissions Trading Programs." Escuela de Negocios, Universidad Adolfo Ibáñez, Santiago, Chile, January 19, 2007.
- Velez, Maria Alejandra; James J. Murphy, and John K. Stranlund. "Preferences for Government Enforcement of a Common Pool Harvest Quota: Theory and Experimental Evidence from Fishing Communities in Colombia." La Acción Colectiva en los Recursos de Uso Común: Aproximaciones Teóricas y Empíricas, Pontificia Universidad Javeriana, Bogotá, Colombia, August 15-17, 2006.

- Murphy, James J. and John K. Stranlund. "Compliance Behavior in Emissions Trading Programs: An Experimental Analysis." National Environmental Partnership Summit, Chicago, Illinois, April 13, 2005.
- Moffitt, L. Joe; John K. Stranlund and Barry C. Field. "Inspections to Avert Terrorism: Robustness under Severe Uncertainty." University of Massachusetts, Amherst, Operations Research/Management Science Seminar Series, Isenberg School of Management, March 11, 2005.
- Murphy, James and John K. Stranlund. "Direct and Market Effects of Enforcing Emissions Trading Programs: An Experimental Analysis." Workshop on Methods for Studying Interactions Between Economics and Ecological Systems and Their Institutions, Pontificia Universidad Javeriana, Bogota, Colombia, August 2-4, 2004.
- John K. Stranlund. "Optimal Noncompliance in Emissions Trading Programs." Universidad de Concepcion, Chile, Facultad de Ciencias Economicas y Administrativas, January 2004.
- Murphy, James and John K. Stranlund. "An Experimental Analysis of Compliance Behavior in Emissions Trading Programs: Preliminary Results." US EPA Workshop on Market Mechanisms and Incentives: Applications to Environmental Policy, Washington DC, May 1-2, 2003.
- Murphy, James and John K. Stranlund. "An Experimental Analysis of Compliance Behavior in Emissions Trading Programs: Preliminary Results." University of Rhode Island, Department of Environmental and Natural Resource Economics, April 25, 2003.
- Stranlund, John K. "Local Environmental Control and Institutional Crowding-Out." Universidad de Concepcion, Chile, Facultad de Ciencias Economicas y Administrativas, June 25, 2001.
- Stranlund, John K. "Enforcing Transferable Emissions Permit Systems." University of Rhode Island, Department of Environmental and Natural Resource Economics, September 22, 2000.
- Stranlund, John K. "Cross-Media Transfers of Pollution and Risk." 1999 National Environmental Health Association Right-to-Know Conference, Denver CO, October 1999.
- Stranlund, John K. and Cleve Willis. "Local Environmental Control and Institutional Crowding-Out." University of Massachusetts, Amherst, Center for Public Policy and Administration Colloquium, September 1999.
- Stranlund, John K. "Enforcing Market-Based Environmental Policies." University of Massachusetts, Amherst, Department of Economics, April 1999.
- Stranlund, John. "Endogenous Monitoring and Enforcement of Transferable Emissions Permit Systems." University of Massachusetts, Amherst, Department of Resource Economics, December 1997.
- Stranlund, John. "Threat Positions Prior to Coasian Bargaining." University of Rhode Island, Department of Environmental and Natural Resource Economics, April 1995.
- Stranlund, John. "Threat Positions Prior to Coasian Bargaining." University of Massachusetts, Amherst, Department of Resource Economics, May 1995.
- Stranlund, John. "Bargaining and Transfers in International Environmental Relations." University of California, Santa Barbara, Department of Economics, June 1994.

Stranlund, John. "Bargaining and Transfers in International Environmental Relations." University of Massachusetts, Amherst, Department of Economics, November 1994.

Stranlund, John. "Public Goods and Communication Structures." University of Connecticut, Department of Agricultural and Resource Economics, November 1993.

Stranlund, John. "Public Mechanisms to Support Compliance to an Environmental Norm." University of Massachusetts, Amherst, Department of Resource Economics, May 1993.

Stranlund, John. "Communication Structures and the Private Provision of Public Goods." University of Nevada, Las Vegas, Department of Economics, February 1993.

Stranlund, John. "Welfare Consequences of Mandating Conformity to a Social Norm." University of Nevada, Las Vegas, Department of Economics, October 1992.

Stranlund, John. "Communication Structures and the Private Provision of Public Goods." University of California, Santa Barbara, Department of Economics, October 1991.

### ***Other Conference Presentations***

Murphy, James J. and John K. Stranlund. "An Investigation of Self-Discovery and Disclosure of Environmental Violations Using Laboratory Experiments." American Agricultural Economics Annual Meeting, Providence, Rhode Island, July 24-27, 2005.

Murphy, James J. and John K. Stranlund. "An Investigation of Self-Discovery and Disclosure of Environmental Violations Using Laboratory Experiments." Experimental Economics and Public Policy Workshop, Appalachian State University, Boone, North Carolina, April 8-9, 2005.

Stranlund, John K. "Deterring Non-compliance in Dynamic Emissions Trading Programs: Does Allowing Permit Banking Call for a Different Enforcement Strategy?" 2002 World Congress of Environmental and Resource Economists, Monterey, California June 24 – 27, 2002.

Stranlund, John K. "Enforcing Transferable Permit Systems in the Presence of Market Power." 6<sup>th</sup> Occasional California Workshop on Environmental and Resource Economics, University of California, Santa Barbara, October 26&27, 2001.

Stranlund, John K. "Enforcing Market-Based Pollution Control Programs: Practice and Theory." Association for Public Policy and Management's Twenty-First Annual Research Conference, Washington DC, October 1999.

Stranlund, John K. "Endogenous Monitoring and Enforcement of a Transferable Emissions Permit System." American Economic Association Winter Meeting, New York, January 1999.

Stranlund, John. "Endogenous Monitoring and Enforcement of Transferable Emissions Permit Systems." Public Choice Society Meetings, March 1998, New Orleans, Louisiana.

Stranlund, John. "Bargaining and Transfers in International Environmental Relations." American Economic Association Winter Meeting, January 1995, Washington DC.

Stranlund, John. "Bargaining and Transfers in International Environmental Relations." Public Choice Society Meetings, April 1994, Austin, Texas.

Stranlund, John. "Communication Structures and the Private Provision of Public Goods." Public Choice Society Meetings, March 1992, New Orleans, Louisiana.

Stranlund, John. "Welfare Consequences of Mandating Conformity to a Social Norm." *Western Economic Association Meetings*, July 1991, Seattle, Washington.

## TEACHING

### *Current Courses*

#### *Graduate Courses*

Applied Microeconomic Theory II: Second course in the core microeconomic theory sequence for M.S. and Ph.D. students in Resource Economics. Focuses on fundamental results in game theory, welfare economics, externalities and public goods, principal/agent relationships under asymmetric information, and dynamic optimization.

Environmental and Resource Economics: First course of the graduate sequence in environmental and natural resource economics for M.S. and Ph.D. students in Resource Economics. This is a co-taught course of which I am responsible for about 50%. My portion focuses on basic concepts in the economic theory of environmental policy and the economics of forestry.

Advanced Environmental and Resource Economics: Second course of a two-part graduate sequence in environmental and natural resource economics for Ph.D. students in Resource Economics. This is a co-taught course of which I am responsible for about 50%. My portion focuses on recent advances in the economic theory of environmental policy.

#### *Undergraduate Courses*

Introduction to Environmental Economics: Introduction to environmental economics that is open to all undergraduate students. Meets the University General Education requirement in the Social and Behavioral Sciences. This course is required for all students in Environmental Sciences and for Resource Economics students in the Environmental and Natural Resource Economics option. The course is an elective course for all other Resource Economics majors, as well as for students in Economics and Natural Resources Conservation.

Advanced Topics in Environmental and Natural Resource Economics: Co-taught senior-level course of which I'm responsible for about 33%. Currently I focus on uncertainty in the design of environmental policies, including the problem of enforcement.

### *Other Courses*

#### *Department of Resource Economics, University of Massachusetts, Amherst*

*Graduate*: Applied Microeconomic Theory I, Environmental Policy in Developing Countries, Environmental Policy Design with Limited Information, Seminar in Environmental and Natural Resource Economics

*Undergraduate*: Community Development Economics

#### *Department of Economics, University of Nevada, Las Vegas*

Statistical Methods, Intermediate Microeconomics

#### *Department of Economics, University of California, Santa Barbara*

Environmental Economics, Natural Resource Economics, Intermediate Microeconomics, Introduction to Economics.

*Department of Environmental Studies, University of California, Santa Barbara*

Advanced Environmental Economics, Land Use Economics

### ***Off-Campus Courses***

The Design of Environmental Policies under Asymmetric Information. Programa Magister en Economía de Recursos Naturales y del Medio Ambiente, Universidad de Concepcion, Chile, January 2004.

The Design of Environmental Policies Using Economic Incentives. Programa Magister en Economía de Recursos Naturales y del Medio Ambiente, Universidad de Concepcion, Chile, June 2001.

Benefit-Cost Analysis. U.S. Environmental Protection Agency, Boston. With Julie Caswell, Barry Field, John Hird, Tom Stevens and Cleve Willis. Summer 1998.

Workshop on the Economics of Preserving Biodiversity. vonHumbolt Institute for Biodiversity, Villa de Leyva, Colombia. With Juan Camilo Cardenas and Cleve Willis. June 1998.

Economics of Environmental Policy Design. Pskov Polytechnical Institute and Academy of Agriculture-Velikie Luki, Russia. June 1996.

Environmental Economics. U.S. Environmental Protection Agency, Boston. With Barry Field, Tom Stevens, and Cleve Willis. Fall 1994.

### ***Graduate Student Research Supervision***

#### Ph.D. Dissertation Chair

Linus Mabughi Nyiwul. Currently Visiting Assistant Professor, Gettysburg College. Ph.D Dissertation: *Essays on Environmental Policy and Markets*. Department of Resource Economics, University of Massachusetts, Amherst. Defended August 2009.

Maria Claudia Lopez. Currently Post-Doctoral Researcher. Workshop in Political Theory and Policy Analysis, Indiana University. Ph.D Dissertation: *Internal, External, and Dual Enforcement to Enhance Conservation of Local Natural Resources: Experimental Evidence from the Field*. Department of Resource Economics, University of Massachusetts, Amherst. Defended November 2007.

David M. McEvoy. Currently Assistant Professor, Department of Economics, Appalachian State University. Ph.D Dissertation: *Enforcing Voluntary Agreements for Environmental Protection: A Theoretical and Experimental Analysis*. Department of Resource Economics, University of Massachusetts, Amherst. Defended August 2007.

Maria Alejandra Velez. Currently Assistant Professor, Facultad de Administración, Universidad de los Andes, Colombia. Ph.D Dissertation: *Three Essays on the Determinants of Behavior in the Commons: Experimental Evidence from Fishing Communities in Colombia*. Department of Resource Economics, University of Massachusetts, Amherst. Defended April 2006.

Marcelo Caffera. Currently Assistant Professor, Department of Economics, University of Montevideo, Uruguay. Ph.D. Dissertation: *Essays on Implementation and Enforcement of*

*Environmental Regulation in the Developing World*. Department of Resource Economics, University of Massachusetts, Amherst. Defended July 2004.

Janine Dombrowski. Currently Senior Market Analyst, Market Monitoring and Mitigation Group, ISO-New England. Ph.D. Dissertation: *Cross-Media Transfers of Pollution and Risk*. Department of Resource Economics, University of Massachusetts, Amherst. Defended August 2000.

Carlos Chavez-Rebolledo. Currently Professor, Department of Economics, University of Concepcion, Chile. Ph.D. Dissertation: *Enforcing Market-Based Environmental Policies*. Department of Resource Economics, University of Massachusetts, Amherst. Defended April 2000.

#### Ph.D. Dissertation Committee Member

Trisha D. Woolley. Ph.D. Dissertation: *Sustainable Supply Chains: Multicriteria Decision-Making and Policy Analysis for the Environment*. Department of Finance and Operations Management, University of Massachusetts, Amherst. In progress.

Ekundayo Shittu. Ph.D. Dissertation: *Investments in Technical Change under Uncertainty*. Department of Mechanical and Industrial Engineering, University of Massachusetts, Amherst. Defended December 2008.

Diogo Monjardino de Souza Monteiro. Ph.D. Dissertation: *The Economics of Traceability in Food Supply Chains: A Network Perspective*. Department of Resource Economics, University of Massachusetts, Amherst. Defended July 2006.

Fuminori Toyasaki. Ph.D. Dissertation: *A Unified Complex Network Framework for Environmental Decision-Making with Applications to Green Logistics, Electronic Waste Recycling, and Hydrogen Supply Chains*. Department of Finance and Operations Management, University of Massachusetts, Amherst. Defended August 2005.

Margarita Korneeva. Currently Vice President, Decision Management, Citicorp Credit Services. Ph.D. Dissertation: *Transferable Permit Systems to Control Spatial Pollutants: A Laboratory Experiment*. Department of Resource Economics, University of Massachusetts, Amherst. Defended February 2004.

Juan Camilo Cardenas. Currently Professor, Faculty of Economics, University of Los Andes, Colombia. Ph.D. Dissertation: *Rural Institutions, Poverty, and Cooperation: Learning from Experiments and Conjoint Analysis in the Field*. Department of Resource Economics, University of Massachusetts, Amherst. Defended May 2000.

Jeffrey Carpenter. Currently Associate Professor, Department of Economics, Middlebury College. Ph.D. Dissertation: *Understanding the Equal Split as a Bargaining Convention and the Role of Residual Claimancy in Team Production: Three Essays in Behavioral and Experimental Economics*. Department of Economics, University of Massachusetts, Amherst. Defended February 2000.

Kathy Kanwalroop Dhanda. Currently Associate Professor, Department of Management, DePaul University. Ph.D. Dissertation: *Environmental Policy Modeling and Computation: A Variational Inequality Approach*. Department of Finance and Operations Management, University of Massachusetts, Amherst. Defended September 1997

M.S. Thesis Chair

Wei Zhang. Currently PhD, student, Department of Agricultural and Resource Economics, University of California, Davis. *Financial Distress and the Performance of Incentive-Based Environmental Policies*. Department of Resource Economics, University of Massachusetts, Amherst. Defended May 2008.

T. Robert Fetter. Currently Environmental Economist, Science Applications International Corporation. M.S. Thesis: *The Demographics of Pollution: Evidence from the EPA's Relative Risk-Based Environmental Indicators Model*. Department of Resource Economics, University of Massachusetts, Amherst. Defended January 2002.

Maximilian Auffhammer. Currently Assistant Professor, Department of Agricultural and Resource Economics and the International Area Studies Program, University of California, Berkeley. M.S. Thesis: *Production of Chlorofluorocarbons in Anticipation of the Montreal Protocol*. Department of Resource Economics, University of Massachusetts, Amherst. Defended August 1998.

M.S. Thesis Committee Member

William Haskell. M.S. Thesis: *Decision Making Under Stochastic Uncertainty*. Department of Resource Economics, University of Massachusetts, Amherst. Defended May 2006.

Kwame Adu-Bonnah. M.S. Thesis: *Optimal Climate Technology Research and Development Investments Under Uncertainty*. Department of Mechanical and Industrial Engineering, University of Massachusetts, Amherst. Defended February 2005.

Amy Olanyk. M.S. Thesis: *Agroterrorism and Farmers' Incentives for Self-Protection*. Department of Resource Economics, University of Massachusetts, Amherst. Defended February 2005.

Erin Manstrangelo. M.S. Thesis: *Mechanisms for Addressing Third-Party Impacts Resulting from Voluntary Water Transfers*. Department of Resource Economics, University of Massachusetts, Amherst. Defended September 2002.

Sumeet Rattan. M.S. Thesis: *Economic Analysis of Community Supported Agriculture*. Department of Resource Economics, University of Massachusetts, Amherst. Defended September 1998.

Tracy Brocks. M.S. Thesis: *Comparing Contingent Valuation and Conjoint Analysis for Valuing the Proposed Conte National Wildlife Refuge*. Department of Resource Economics, University of Massachusetts, Amherst. Defended February 1996.

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Seminar Coordinator, 1994-1997, 2005-current

*Center for Public Policy and Administration*

Faculty, Center for Public Policy and Administration, 2002-current  
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Planning, Research, and Faculty Engagement Committee Member, 2001-2002, 2006-2007  
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*Environmental Sciences Program*

Affiliated Faculty, Environmental Sciences Program, 1993-current  
Environmental Science Steering Committee Member, 1993-1999  
Environmental Science Curriculum Committee Member, 1994-1999

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Editorial Board Member, *Journal of Regulatory Economics*, 2002-current

Ad hoc referee for:

Agriculture and Resource Economics Review  
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Harper-Collins Publishing

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Social Sciences and Humanities Research Council of Canada  
National Science Foundation

Program Committee Member, The Second World Congress of Environmental and Resource Economists, Monterey CA, June 24 – 27, 2002.

Selected Paper Reviewer, Northeast Agricultural and Resource Economics Association Annual Meetings 1994, 1995, and 1996.