

AERE Sessions

Allied Social Science Associations (ASSA) Annual Meeting January 7-9, 2011 Denver, Colorado

A. Title of Session: The Intergovernmental Panel on Climate Change Round Table

Session Summary: This session brings together seven scholars who have served as lead authors for the Intergovernmental Panel on Climate Change (IPCC) right as the IPCC will be launching the work on its fifth assessment report. The eighth participant is a member of the 12-person independent review panel, tasked with examining the procedures of the IPCC, assembled by the InterAcademy Council, which represents 15 science academies around the world, and completed its report for UN Secretary-General Ban Ki-moon August 30, 2010. Panelists will first give a short presentation about their experience in the past and what they see as main issues for the future, before they take questions from the floor.

Moderator and Email address: Robert Stavins, Harvard University
(robert_stavins@harvard.edu)

Panelists:

Carlo Carraro, University of Venice (carraro@feem.it)

Maureen Cropper, University of Maryland, College Park and Resources for the Future
(cropper@rff.org)

Brian Flannery, Exxon-Mobil (brian.p.flannery@exxonmobil.com)

Charles Kolstad, University of California, Santa Barbara (kolstad@econ.ucsb.edu)

Richard Richels, Electric Power Research Institute (rrichels@epri.com)

John Weyant, Stanford University (weyant@leland.stanford.edu)

Gary Yohe, Wesleyan University (gyohe@wesleyan.edu)

B. Title of Session: The Costs and Benefits of Pollution Control

Session Summary: This session brings together a set of four empirical papers on the cost and benefit of pollution control, with a special emphasis on cars. The first paper examines the “cash-for-clunkers” program in the United States on vehicle purchases, while the second paper looks at a German law that limits what types of cars can be driven in cities that fail PM standards and its effect on air quality both in the regulated cities and surrounding areas as the mix of cars adjusts. The third paper uses a stated-preference approach to derive the demand for permits to drive in the Washington DC area during high ozone days. The fourth paper uses a micro-level data set of worker productivity and how it relates to environmental conditions. The fifth paper analyzes a unique data set of 10 million consumers to produce new estimates of quality of life expenditures.

Moderator and Email address: Richard Carson, University of California, San Diego (rcarson@ucsd.edu)

Presentation Title: Evaluating "Cash for Clunkers": Program Effect on Vehicle Sales and Cost-Effectiveness of Pollution Control

Author(s), affiliations, and e-mail address of presenting author: Shanjun Li, Resources for the Future (li@rff.org), Joshua Linn, Resources for the Future, Elisheba Spiller, Duke University, Christopher Timmins, Duke University

Discussant: Soren Andersen, Michigan State University (sta@msu.edu)

Presentation Title: Low Emission Zones, Air Pollution and Vehicle Adoption

Author(s), affiliations, and e-mail address of presenting author: Hendrik Wolff, University of Washington (hgwolff@u.washington.edu), Lisa Perry, University of Washington

Discussant: Stephen Holland, University of North Carolina, Greensboro (sphollan@uncg.edu)

Presentation Title: Getting Cars Off the Road: The Cost-Effectiveness of an Episodic Pollution Control Program

Author(s), affiliations, and e-mail address of presenting author: Maureen Cropper, University of Maryland, College Park and Resources for the Future (cropper@rff.org), Yi Jiang, Asian Development Bank, Anna Alberini, University of Maryland, College Park, Patrick Baur, National Academy of Sciences

Discussant: Richard Carson, University of California, San Diego (rcarson@ucsd.edu)

Presentation Title: The Impact of Environmental Conditions on Worker Productivity

Author(s), affiliations, and e-mail address of presenting author: Matthew Neidell, Columbia University (mn2191@columbia.edu), Joshua Graff Zivin, University of California, San Diego

Discussant: Fabian Lange, Yale University (Fabian.lange@yale.edu)

Presentation Title: Accounting for Amenities: Evidence from 10 Million Consumers on Expenditures for Nonmarket Goods and Services that Influence the Quality of Life

Author(s), affiliations, and e-mail address of presenting author: David Bieri, Virginia Tech University, Nicolai Kuminoff, Arizona State University (kuminoff@asu.edu), Jaren Pope, Brigham Young University

Discussant: Ken Baerenklau, University of California, Riverside (ken.baerenklau@ucr.edu)

C. Title of Session: Climate Mitigation and Adaptation

Session Summary: This session explores theoretical and empirical issues in climate change economics. The first paper uses the spatio-temporal monsoon onset pattern to identify farmer adaptation strategies. The second paper uses an overlapping generations model to theoretically examine the conventional wisdom that climate policy requires current generations making sacrifices for the benefit of future generations. Asymmetric information problems plague carbon offsets because sellers have private information about whether the offsets are truly additional. The third paper proposes and empirically evaluates a contracting scheme designed to solve this problem. The final paper uses a Monte Carlo analysis to investigate the design and performance of a strategic allowance reserve in the context of a cap and trade program for greenhouse gases.

Moderator and Email address: Robert Mendelsohn, Yale University
(robert.mendelsohn@yale.edu)

Presentation Title: Adapting to Predictable Weather Changes: Chinese Farmers and the Monsoon Onset

Author(s), affiliations, and e-mail address of presenting author: Kyle Meng, Columbia University (km2455@columbia.edu), Wolfram Schlenker, Columbia University and NBER, Liangzhi You, International Food Policy Research Institute

Discussant: Wayne Gray, Clark University (WGray@clarku.edu)

Presentation Title: Climate Policy and Intergenerational Welfare

Author(s), affiliations, and e-mail address of presenting author: Larry Karp, University of California, Berkeley (karp@berkeley.edu), Armon Rezai, Vienna University of Economics

Discussant: Richard Howarth, Dartmouth College (Richard.Howarth@Dartmouth.EDU)

Presentation Title: The Additionality Problem with Offsets: Optimal Contracts for Carbon Sequestration in Forests

Author(s), affiliations, and e-mail address of presenting author: Charles F. Mason, University of Wyoming, Andrew Plantinga, Oregon State University
(plantinga@oregonstate.edu)

Discussant: Brian Murray, Duke University (brian.murray@duke.edu)

Presentation Title: Performance of a Strategic Allowance Reserve in a Cap-and-Trade Program: A Probabilistic Analysis

Author(s), affiliations, and e-mail address of presenting author: Alexander Golub, Environmental Defense Fund, Nathaniel Keohane, Environmental Defense Fund
(nkeohane@edf.org)

Discussant: Bruce Mizrach, Rutgers University (mizrach@econ.rutgers.edu)

D. Title of Session: Policy Evaluation

Session Summary: Papers in this session empirically evaluate the effects of environmental and resource policies. The first paper contrast results from a field experiment where water bills contained three randomly assigned messages designed to induce voluntary water conservation and compares water consumption to the neighboring county that was not included. The next two papers both use a regression discontinuity design whether counties are in attainment for criteria air pollutants as these standards quantify maximum allowable concentrations. They examine the decision of plants to either abate or relocate as well as the implications on employment in regulated industries. The fourth paper uses a global data set on the stringency of individual transferable quotas in fisheries and shows that more secure rights have higher capitalization ratios compared to current annual value.

Moderator and Email address: Matthew Kotchen, Yale University
(matthew.kotchen@yale.edu)

Presentation Title: Comparing Experimental and Nonexperimental Evaluation Designs Using a Large-Scale Randomized Experiment in Environmental Policy

Author(s), affiliations, and e-mail address of presenting author: Paul Ferraro, Georgia State University (pferraro@gsu.edu), Juan Jose Miranda, Georgia State University

Discussant: Jaren Pope, Brigham Young University (jaren_pope@byu.edu)

Presentation Title: The Transitional Costs of Environmental Regulation: Evidence from Workers

Author(s), affiliations, and e-mail address of presenting author: W. Reed Walker, Columbia University (rw2157@columbia.edu)

Discussant: Matthew Kotchen, Yale University (matthew.kotchen@yale.edu)

Presentation Title: Abate or Abscond? Polluting Plants Response to Environmental Regulation

Author(s), affiliations, and e-mail address of presenting author: J. Scott Holladay, New York University (james.holladay@nyu.edu)

Discussant: Suresh Naidu, Columbia University (suresh.naidu@gmail.com)

Presentation Title: The Value of Secure Property Rights: Global Evidence from Fisheries

Author(s), affiliations, and e-mail address of presenting author: Corbett Grainger, University of Wisconsin, Madison, Christopher Costello, University of California, Santa Barbara (costello@bren.ucsb.edu)

Discussant: Martin Smith, Duke University (marsmith@duke.edu)

E. Title of Session: Spatial Frontiers in Environmental and Resource Economics

Session Summary: Spatial models have permeated many areas within environmental and resource economics. This session brings together research on a diverse set of questions in which spatial features are central. The first paper revisits the question of whether roads cause deforestation by allowing for heterogeneous impacts and incorporating insights from the von Thünen model. The second paper examines the optimal provision of ecosystem services in a spatially heterogeneous landscape. The third paper extends to real options literature on irreversibility in environmental policy to a case with spatial spillovers in which decisions under uncertainty are connected through spatial geometry. The fourth paper investigates how spatial scale effects the relative importance of nonmarket feedbacks in general equilibrium welfare measures. The final paper explores the distributional consequences of environmental policy by modeling residential location choices with a sorting approach and spatially fine-scale census data.

Moderator and Email address: David Zilberman, University of California, Berkeley (zilber11@berkeley.edu)

Presentation Title: Heterogeneous Forest Impacts of Transport Infrastructure: Spatial Frontier Dynamics & Impacts of Brazilian Amazon Road Changes

Author(s), affiliations, and e-mail address of presenting author: Alexander Pfaff, Duke University (alex.pfaff@duke.edu), Juan Robalino, CATIE/EfD

Discussant: Scott Lowe, Boise State University (scottlowe@boisestate.edu)

Presentation Title: A Spatial Model of Ecosystem Services

Author(s), affiliations, and e-mail address of presenting author: Edward Barbier, University of Wyoming (ebarbier@uwyo.edu)

Discussant: Kelsey Jack, Harvard University (Kelsey_Jack@hksphd.harvard.edu)

Presentation Title: The Role of Spatial Spillover Effects in Environmental Policy under Uncertainty

Author(s), affiliations, and e-mail address of presenting author: Charles Sims, Utah State University (Charles.sims@usu.edu), David Finnoff, University of Wyoming

Discussant: James Sanchirico, University of California, Davis (jsanchirico@University_of_California.davis.edu)

Presentation Title: Spatial Scale, Sorting Models, and the General Equilibrium Evaluation of Environmental Policies

Author(s), affiliations, and e-mail address of presenting author: H. Allen Klaiber, Pennsylvania State University (aklaiber@psu.edu), V. Kerry Smith, Arizona State University

Discussant: Antonio Bento, Cornell University (amb396@cornell.edu)

Presentation Title: Using Residential Sorting Models to Measure the Distribution of Environmental Benefits

Author(s), affiliations, and e-mail address of presenting author: Tim Hamilton, North Carolina State University (tlhamilt@ncsu.edu), Dan Phaneuf, North Carolina State University

Discussant: Matthew Kahn, University of California, Los Angeles (mkahn@ioe.ucla.edu)

F. Title of Session: Theory of Environmental Policy

Session Summary: This session considers, from a theoretical perspective, topics at the frontiers of environmental policy. Specific topics that will be addressed include the following: How should policies be designed when there are multiple pollutants, regulated and unregulated sectors, and existing suboptimal policies? How should environmental policies take account of behavioral anomalies? What are the important differences between ambient and emission standards when environmental quality is stochastic? How should we design environmental policy instruments in the presence of spillovers? The last paper extends the literature on quasi-option value to the case in which users of a resource interact strategically.

Moderator and Email address: Jason Shogren, University of Wyoming (jramses@uwyo.edu)

Presentation Title: Robust Instrument Choice when Environmental Regulations Spill Over
Author(s), affiliations, and e-mail address of presenting author: Corjan Brink, Netherlands Environmental Assessment Agency, Dallas Burtraw, Resources for the Future, David Evans, US Environmental Protection Agency (evans.davida@epa.gov), Herman Vollebergh, Netherlands Environmental Assessment Agency

Discussant: Hilary Sigman, Rutgers University (sigman@econ.rutgers.edu)

Presentation Title: Ambient Environmental Quality Standards and Emissions Standards in Stochastic Media

Author(s), affiliations, and e-mail address of presenting author: Stephen Hamilton, California Polytechnic State University (shamilto@calpoly.edu), Till Requate, University of Kiel, Germany

Discussant: Ryan Kellogg, University of Michigan (kelloggr@umich.edu)

Presentation Title: Optimal Policy Instruments for Externality Producing Durable Goods under Behavioral Anomalies

Author(s), affiliations, and e-mail address of presenting author: Garth Heutel, University of North Carolina at Greensboro (gaheutel@uncg.edu)

Discussant: Jason Shogren, University of Wyoming (jramses@uwyo.edu)

Presentation Title: Multiple Pollutants, Unregulated Sectors, and Suboptimal Environmental Policies

Author(s), affiliations, and e-mail address of presenting author: Daniel Karney, University of Illinois at Urbana-Champaign (dkarney2@illinois.edu), Don Fullerton, University of Illinois at Urbana-Champaign

Discussant: Corbett Grainger, University of Wisconsin (cagrainger@wisc.edu)

Presentation Title: Quasi Option Value under Strategic Interactions

Author(s), affiliations, and e-mail address of presenting author: Tomoki Fujii, Singapore Management University (tfujii@smu.edu.sg)

Discussant: Linda Nostbakken, University of Alberta (linda.nostbakken@ualberta.ca)

G. Title of Session: Competitiveness and the Environment

Session Summary: This session focuses on the relationship between environmental policies and competitiveness among firms and governments. A variety of questions are considered: Does the classic Porter hypothesis apply differentially to expected profitability and actual profitability? Is the EPA strategic about its press releases in a way that maximizes public exposure of disclosure statements? What are the strategic incentives that nations face when designing their environmental policies? And are agglomeration effects evident in projects included in the Kyoto Protocol's Clean Development Mechanism?

Moderator and Email address: Carolyn Fischer, Resources for the Future (fischer@rff.org)

Presentation Title: The Financial Effects of Environmental Regulation: Actual Profitability versus Expected Profitability

Author(s), affiliations, and e-mail address of presenting author: Dietrich Earnhart, University of Kansas (Earnhart@ku.edu), Dylan G. Rassier, US Department of Commerce

Discussant: Lori Bennear, Duke University (lori.bennear@duke.edu)

Presentation Title: Politics and the Strategic Release of News at the EPA

Author(s), affiliations, and e-mail address of presenting author: Elisabeth Newcomb Sinha, University of Maryland, College Park (enewcomb@arec.umd.edu)

Discussant: Mario Teisl, University of Maine (teisl@main.edu)

Presentation Title: A Tale of Two Externalities: Environmental Policy and Market Structure

Author(s), affiliations, and e-mail address of presenting author: Ana Espinola-Arredondo, Washington State University (anaespinola@wsu.edu), Felix Munoz-Garcia, Washington State University

Discussant: Carolyn Fischer, Resources for the Future (fischer@rff.org)

Presentation Title: An Empirical Study of the Agglomeration of the Clean Development Mechanism Activities

Author(s), affiliations, and e-mail address of presenting author: Junjie Zhang, University of California, San Diego (junjiezhang@ucsd.edu)

Discussant: Alexander Pfaff, Duke University (alex.pfaff@duke.edu)

H. Title of Session: Consumer Demand and Conservation

Session Summary: This session includes empirical studies of consumer behavior as it relates to energy and conservation. Specific questions that will be considered include the following: Can we test between competing explanations for why consumers appear to “undervalue” fuel efficiency when purchasing a vehicle? Do electricity consumers respond to average or marginal prices, and how should billing information be presented? What factors influence whether households are willing to adopt subsidized green technologies such as rain barrels? Finally, the fifth paper uses a regression discontinuity approach to explore the unintended consequences of ozone alerts on driving behavior.

Moderator and Email address: Severin Borenstein, University of California, Berkeley
(borenste@haas.berkeley.edu)

Presentation Title: Are Price Signals Important in Residential Energy Consumption? Evidence from Northern Ireland

Author(s), affiliations, and e-mail address of presenting author: Will Gans, University of Maryland, College Park (wgans@arec.umd.edu), Anna Alberini, University of Maryland, College Park and Queen’s University, Belfast

Discussant: Severin Borenstein, University of California, Berkeley
(borenste@haas.berkeley.edu)

Presentation Title: Environmental Feedback and Consumer Demand for Green Technology: Adoption of Rain Barrels from Stormwater Control

Author(s), affiliations, and e-mail address of presenting author: Amy Ando, University of Illinois at Urbana-Champaign (amyando@illinois.edu), Luiz Freitas, University of Illinois at Urbana-Champaign and Industrial Economics

Discussant: Sheila Olmstead, Resources for the Future (olmstead@rff.org)

Presentation Title: Do Consumers Recognize the Value of Fuel Economy? Evidence from Used Car Prices and Gasoline Price Fluctuations

Author(s), affiliations, and e-mail address of presenting author: James Sallee, University of Chicago, Sarah E. West, Macalester College (wests@macalester.edu) and Wei Fan, RVI

Discussant: Mark Jacobsen, University of California, San Diego (m3jacobs@ucsd.edu)

Presentation Title: Beliefs and Consumer Choice of Energy-Using Durables

Author(s), affiliations, and e-mail address of presenting author: Hunt Allcott, Massachusetts Institute of Technology (allcott@mit.edu)

Discussant: Ian Parry, Resources for the Future (parry@rff.org)

Presentation Title: Abatement or Averting: The Effects of Ozone Alerts on Driving and Outdoor Recreation Behavior in Atlanta

Author(s), affiliations, and e-mail address of presenting author: Douglas Noonan, Georgia Institute of Technology (Douglas.Noonan@pubpolicy.gatech.edu)

Discussant: Richard Ready, Pennsylvania State University (rcr10@psu.edu)

Joint Session

Association of Environmental and Resource Economists (AERE) and the American Economic Association (AEA)

Nonmarket Valuation Twenty Years after the Exxon Valdez: The Current State of the Art for Informing Benefit Cost Analysis

Session Overview: Nonmarket valuation methods have been an area of continuing research in the field of environmental economics for at least the past four decades. From a policy and social welfare perspective, there has been good reason for this focus. Since the Reagan administration, all major U.S. regulations have been subject to benefit cost analysis. Nonmarket valuation methods have been the main tool used to value environmental benefits or costs associated with regulation. They have also been an important tool in the Natural Resource Damage Assessment proceedings which can hold firms accountable for sizable damage payments. Additionally, nonmarket valuation methods are used to value reduced risk of illness or death which is used in both environmental regulation and many other regulatory decisions. In short, nonmarket valuation methods and empirical estimates have significant real world relevance.

Within the academic literature, a large and occasionally contentious literature has developed. The Exxon Valdez oil spill in 1989 and the resulting legal proceedings lead to considerable interest in this literature which had previously been of interest to relatively few academic economists. The discussion highlighted the potentially sizable component of nonuse values and raised questions about stated preference methods for eliciting them. Two important outcomes were the landmark NOAA Blue Ribbon Panel report on the use of contingent valuation to estimate damages from oil spills and the set of papers published in the *Journal of Economic Perspectives* concerning the contingent valuation method generally.

The academic literature since that time has continued to evolve. Stated preference methods now include many applications of “choice” experiments with differing incentive properties and performance than conventional referendum style contingent valuation. The field of “behavioral” economics has identified many more “anomalies” which may raise questions both for methods in nonmarket valuation and for benefit cost analysis in general. Finally, a rich literature using methods from laboratory and field experiments have compared estimates from stated preference methods with actual transactions. Most of this research has been focused on stated preference methods despite the fact that revealed preference approaches have repeatedly been shown to be highly sensitive to functional form, variable construction, and other modeling assumptions.

The purpose of this session is to assess the state of the art and the state of the practice in nonmarket valuation. It will bring together economists with expertise in nonmarket valuation including those who have been key in developing methods, those who have been central in refining and applying the methods, and those who have primarily been involved in testing the validity or reliability of the methods. Both revealed and stated preference methods will be discussed. Drawing from the literature and their personal research, panelists will be asked to comment on the accuracy and reliability of nonmarket valuation methods. Possible questions for discussion include:

1. What do we know now that we did not twenty years ago about the reliability and validity of stated preference methods for eliciting environmental values?
 - a. Does the answer depend on the type of value being elicited (use value, nonuse, valuation under uncertainty, etc.)?
 - b. Are there known biases to welfare measures associated with the methods? What specific procedures reduce (or eliminate) those biases?
 - c. Has adequate attention been given to the validity and reliability of revealed preference methods (hedonics, recreation demand, wage studies, etc.)?
 - d. Does the combined use of revealed and stated preference data to estimate values ameliorate any of these issues?
 - e. What are the most pressing research needs that remain?

2. How accurate do welfare estimates need to be for them to be used in decisionmaking?
 - a. Are the standards the same for legal proceedings as for benefit-cost analysis (BCA) for federal or state regulations? For policy advice such as setting an environmental standard? For implementing U.S. Army Corps of Engineers projects?
 - b. Are there some methods or sources of data that typically fail these standards? Some that never fail?
 - c. How adequate is benefits transfer for use in BCA?
 - d. What do we tell decision makers when we feel that our current methods do not pass the bar?

3. How does our current understanding of behavioral economics (e.g., the WTP/WTA divergence) affect our interpretation of welfare valuation and BCA in general?

Format: The session will be a panel/roundtable discussion. Each participant will be allotted 10-15 minutes for commentary, followed by open discussion with the audience.

Organizer: Catherine Kling, Iowa State University

Moderator: Catherine Kling, Iowa State University

Panel Participants

Kevin Boyle, Virginia Tech

Richard Carson, University of California, San Diego

V. Kerry Smith, Arizona State University

John List, University of Chicago

Joseph Herriges, Iowa State University

Ted McConnell, University of Maryland, College Park

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