Abstracts of Selected Papers

NAREA Annual Meetings, Atlantic City, New Jersey, June 13–16, 2010

SESSION: *Land Preservation.* Moderator: Jacqueline Geoghegan (Clark University)

"Development of a Best Practices Framework for Agricultural Land Preservation Programs in Maryland: Future for Optimization." Yu Chen and Kent Messer (University of Delaware) and William Allen (The Conservation Fund).

Research shows that the use of optimization can improve the effectiveness of existing Maryland Agricultural Land Preservation Foundation (MALPF) programs. Survey results from MALPF administrators identify benefits and costs, as well as barriers to implementing optimization. Results will shape a best practices framework for MALPF by customizing optimization for each county.

"Assessing the Effectiveness of Conservation Easements for Wildlife Conservation in West Virginia." Sudiksha Joshi and Michael Strager (West Virginia University).

This study analyzes the effectiveness of the conservation easements in West Virginia in terms of their size, proximity to protected areas and other conservation easements, species richness, and land value. Spatial statistical analysis is used to characterize the established conservation easements and assess their complementary role in wildlife conservation.

"An Empirical Analysis of a 'Smart Subsidy'." Nathaniel Higgins (Economic Research Service, USDA), Shawn Bucholtz (Farm Service Agency), and Lori Lynch (University of Maryland).

This paper analyzes a policy meant to increase the benefits of conservation programs by encouraging the clustering of enrolled land. Landowners enrolling in Oregon's Conservation Reserve Enhancement Program (CREP) received a cash bonus when specific agglomeration targets were met. We use geo-located data to determine whether this incentive was successful in encouraging agglomeration.

"A Spatial Analysis of Local Preservation Referenda Appearance and Adoption." Martin Heintzelman and Dustin Grzeskowiak (Clarkson University).

This paper analyzes the appearance and passage of local preservation referenda in a dynamic context using spatial econometrics. We focus on the Massachusetts Community Preservation Act as our case study and look to understand the dynamics of passage as well as the impacts of the actions of neighboring towns.

SESSION: *Food Production and Access.* Moderator: Carolyn Dimitri (Economic Research Service, USDA)

"Agglomeration Economies and Firm Growth in the New York Food and Beverage Manufacturing Sector." Jeffrey Hall and Todd Schmit (Cornell University).

An analysis of firm-level and spatial factors affecting the revenue growth of surveyed New York State food and beverage manufacturing establishments was conducted. Agglomeration effects were examined for upstream, downstream, and within-stream firm clustering. Different effects from clustering for urban and rural firms were found.

"SNAP, Stigma and Food Access in the Northeast." Alessandro Bonanno and Jing Li (Penn State University).

This paper uses county-level data for the Northeast to assess the impact of food access on the effectiveness of the Supplemental Nutrition Assistance Program (SNAP). Using a proxy for participation share as a measure of the program's effectiveness, we find that food access matters in increasing the reach of the program.

"Protection, Production, and Persuasion: Factors Influencing Pesticide Regulatory Decisions under the Food Quality and Protection Act." Elisabeth Newcomb Sinha (University of Maryland).

Overly protective pesticide regulation may result in productivity losses; a lack of regulation may result in the endangerment of human life and wildlife. Given the ramifications of pesticide regulation, this paper evaluates how the U.S. Environmental Protection Agency balances conflicting interests in the regulatory process.

Agricultural and Resource Economics Review 39/3 (October 2010) 585–593

"Constructing Estimates of the Hidden Cost of Food in the United States." Charles Rhodes (University of Connecticut).

I construct, inform, and apply to specific food products a framework for estimating hidden costs of the American food system across the spectrum, from production through to health effects. All hidden costs reflect aspects of classically defined market failure. The framework serves as a first approximation, inviting further empirical analysis.

SESSION: *Trade, Efficiency, and Transnational Issues.* Moderator: Titus Awokuse (University of Delaware)

"Introducing Wine into Grocery Stores: Economic Implications and Transitional Issues." Brad Rickard (Cornell University).

Currently, 15 states have laws that restrict wine sales in grocery stores. A simulation model is developed here to assess the likely effects of introducing wine into grocery stores in New York State. Simulation results are subsequently used to develop a framework for evaluating various proposals that would provide compensation to liquor store owners.

"Avian Influenza Alters Japan's Import Patterns of Shell Eggs and Egg Products." Fawzi Taha and William Hahn (Economic Research Service, USDA).

A differential demand model was used to evaluate the impact of HPAI (H5N1) outbreaks on Japan's import demand for shell eggs and egg products. Analysis showed a significant structural change in the elasticities of demand. Imports shifted in favor of safer dried-egg products, substituting for non-dried and shell eggs.

"Welfare Gains from the Removal of Natural Resource Export Restrictions: The Case of British Columbia." Steven Dundas, Jacob Fooks, and Titus Awokuse (University of Delaware).

This paper examines the hypothetical removal of roundwood export restrictions in the forestry sector of British Columbia using roundwood price and quantity data from 1995 to 2008. Empirical results from our vector-error correction model introduce new supply and demand elasticities for roundwood and demonstrate potential welfare gains to British Columbia.

"From an Innovation System Perspective: Environmentally Friendly Technical Change and Small- and Medium-Sized Enterprises." Pinar Geylani (Duquesne University) and Bahar Erbas (TOBB University of Economics and Technology).

We analyze factors that affect small- and medium-sized enterprises' (SMEs) innovation and adoption of environmentally friendly products and processes. Econometric analysis of 1,200 Turkish SMEs not only includes intra-firm characteristics, regulations, and enforcement, but also considers innovation partners, external pressures, and competition through business competences, network involvement, and environmental orientation.

SESSION: *Valuation.* Moderator: Mahesh Ramachandran (Clark University)

"Willingness to Pay for Forest Ecosystem Services in Rhode Island: Do Payment Elicitation Mechanisms Matter?" Jacqueline Haskell (National Oceanic and Atmospheric Administration) and Emi Uchida, Stephen Swallow, and Hirotsugu Uchida (University of Rhode Island).

A market-based approach to providing public goods is gaining attention. This study of Rhode Island residents willingness to pay for forest ecosystem services seeks to understand how certain payment elicitation mechanisms for public goods affect incentives to free-ride. The major finding is that, while consumers respond to the mechanisms' incentives, free-ridership persists.

"Comparison of Three Rebate Rules for Provision of Public Goods with Provision Point: Experiments Motivated by Ecosystem Service Markets." Zhi Li, Stephen Swallow, and Christopher Anderson (University of Rhode Island).

This paper introduces the Uniform Price Auction and Uniform Price Cap rebate rules for threshold public goods provision. We use an experiment to compare them with one another, and with proportional rebate with a baseline provision point mechanism, in terms of group contributions, provision rate, demand revelation, and the relationship between contribution and induced values.

"Valuation of a Quasi-Public Good Using Both Revealed and Stated Preference Techniques."

Allison Borchers and Joshua Duke (University of Delaware).

This paper looks at public benefits for preservation and sustainable management practices of a local, actively farmed, large land parcel. This study contributes to existing research by addressing the benefits of a quasi-public good using both a revealed and stated preference valuation technique.

"Measuring Public Preferences for Watershed Management Programs in Blackstone River Watershed, Rhode Island, USA: An Application of Contingent Choice Method." Achyut Kafle, Stephen Swallow, and Liz Smith (University of Rhode Island).

A choice experiment was used to measure public preferences for watershed management programs for Blackstone River Watershed as an attempt to help the Natural Resource Conservation Service (NRCS) incorporate public preferences in the Rapid Watershed Assessment (RWA) process. Results suggest that water quality improvement and open space preservation are important areas for action.

SESSION: *Biofuels and Carbon Capture*. Moderator: Stacey Sneeringer (Wellesley College)

"Urban Influence on Costs of Production in the Corn Belt: How Climate Change and the Ethanol Mandate Boost Chemical Use." Richard Nehring (Economic Research Service, USDA), Seth Wechsler (University of Maryland), and Ken Erickson, Vince Breneman, and Charlie Hallahan (Economic Research Service, USDA).

This study evaluates how recently passed ethanol mandates impact the competiveness and viability of crop/livestock operations in the Corn Belt. A two-stage approach is used to determine how ethanol mandates, urbanization, and changes in climatic variables affect pesticide use and the competitiveness and viability of Corn Belt farms.

"Estimating a Cellulosic Biomass Crop Supply Function with GIS and a Crop Simulation Model." David Timmons (University of Massachusetts).

This project develops a cellulosic biomass crop supply function for western Massachusetts, focusing on unused farmland. Using a GIS model to identify candidate land and a crop-growth model to estimate yields, marginal costs are estimated, and a supply function calculated. The most promising areas for cellulosic energy crops are identified.

"Analyzing the Economic Impacts of CO_2 Intrusion into Freshwater Aquifers." Praveena Jayaraman and Mark Sperow (West Virginia University).

This paper uses a cost-benefit framework to analyze the economic consequences of potential contamination of freshwater aquifers due to carbon dioxide (CO_2) leakage from carbon capture and storage in underlying saline aquifers. We develop a decision framework to evaluate alternative corrective actions in the event of leakage.

"Identifying the Causal Effect of Ethanol Production on Corn Production." Barrett Kirwan (University of Maryland) and Stacy Sneeringer (Wellesley College).

Through its influence on corn production, ethanol production damages the environment by increasing water pollution. Because ethanol production facilities choose to locate in areas with high corn production, the cross-sectional correlation between ethanol production and corn production may not be causal. We isolate ethanol's effect on corn production.

SESSION: *Issues in Agriculture*. Moderator: Joshua Duke (University of Delaware)

"Characterizing New Jersey's Farm Landscape: Case Studies of Urban Fringe Farm Footprints." Brian Schilling, Jack Rabin, and Lucas Marxen (Rutgers University).

Through a series of case studies, this paper characterizes the extent and nature of built structures, improvements, and associated land use modifications on New Jersey farms. Study findings will inform policy discourse concerning levels of soil disturbance on preserved farms and associated interpretations of deed of easement conformity.

"Evaluating Revisions in Eligibility Criteria for Farmland Assessment in New Jersey." Brian Schilling, Kevin Sullivan, and Lucas Marxen (Rutgers University).

The Farmland Assessment Act is a cornerstone of agricultural retention efforts in New Jersey;

however, qualification criteria for the program are coming under scrutiny. Through a series of policy simulations, this paper examines the impact of increasing minimum revenue requirements for farmland assessment eligibility on qualified acreage and industry revenues.

"The Role of Risk Mitigation in Production Efficiency: A Case Study of Bolivian Potato Producers." Catherine Larochelle and Jeffrey Alwang (Virginia Tech).

The objective of this study is to understand the relationship between environmental risk management and production efficiency among Bolivian potato producers. Risk mitigation can help reduce the impacts of environmental shocks but can also result in inefficiency. This duality is analyzed using a stochastic production frontier and spatial statistics.

"Apple Management: Survey Evidence on Conventional and Organic Farms from 2007—Comparing Apples to Apples." Edward Slattery and Richard Nehring (Economic Research Service, USDA), Seth Wechsler (University of Maryland), and Agapi Somwaru and Charlie Hallahan (Economic Research Service, USDA).

We use data envelopment analysis and regression techniques to calculate farm-level economic performance for conventional and organic apple farms. We also compare horticultural practices and evaluate pesticide usage to construct health risk indices of apple production techniques, and compare that to those of other fruits produced in the United States.

SESSION: *International Trade.* Moderator: Alessandro Bonanno (Penn State University)

"Prospect for Continued Free Trade Agreements: A View from New Jersey Agricultural Producers." Edmund Tavernier and Anita Yadavalli (Rutgers University).

This paper uses survey data to examine whether the United States should continue to pursue free trade agreements to reduce and eliminate trade barriers. Logistic regression results show that except for sales, agricultural producers across the age, tenure, income, and education categories express a preference for such policies.

"De Gustibus Asparagus: Availability, Habits, and Welfare from the Vegetable Trade." Peyton Ferrier (Economic Research Service, USDA) and Chen Zhen (Research Triangle Institute).

We estimate a translog demand system for fresh vegetables using the Lee and Pitts dual approach to consider the effects of habits on producer and consumer welfare. Out-of-season imports may foster habits that raise in-season demand. We then consider the appropriateness of market loss assistance provided to asparagus producers in the 2008 farm bill.

"The WTO: Does It Increase Trade? A Look at the First Decade of the Twenty-First Century." Kathryn Onken, Jubo Yan, and Titus Awokuse (University of Delaware).

This paper examines whether membership in the WTO actually enhances trade. We use new data to extend previous research by Rose[1] that shows that WTO membership does not matter for trade expansion. We find membership in the WTO does enhance trade post-1999.

"Impact of Exchange Rate Volatility on U.S. Demand for Source-Differentiated Beef." Keithly Jones and Andrew Muhammad (Economic Research Service, USDA).

This study theoretically examines the influence of exchange rate uncertainty on the U.S. import demand for source-differentiated beef. In an effort to mitigate risk, particularly exchange rate uncertainty, importers may allocate total beef expenditures across more supplying countries than would otherwise seem optimal.

SYMPOSIUM SESSION: *The Use of Ecological Indexes and Indicators in Water Quality Valuation.* Moderator: Will Wheeler (U.S. Environmental Protection Agency, National Center for Environmental Economics)

Despite implications for welfare and benefit analysis, there is little work related to the use, properties, and performance of indicators and indexes in environmental valuation. Presentations emphasize implications of combined results for the design of valuation studies, interpretation of welfare estimates, and the use of results to inform policy.

[1] Rose, A.K. 2004. "Do We Really Know That the WTO Increases Trade?" *American Economic Review* 94(1): 98–114.

"Integrating Ecology and Economics: Using Bioindicators in the Valuation of Ecosystem Services." Robert Johnston (Clark University), Eric Schultz and Kathleen Segerson (University of Connecticut), Elena Besedin (Abt Associates), and Mahesh Ramachandran (Clark University).

This paper proposes guidelines to promote ecological clarity in stated preference surveys and defensible use of ecological information for valuation. Methods are developed for application to migratory fish passage in New England rivers. Findings suggest that less structured treatments of ecological information can omit information essential for valid welfare estimation.

"Water Quality Indicators in Hedonic Property Analysis." Patrick Walsh (U.S. Environmental Protection Agency).

A rule recently proposed by the U.S. Environmental Protection Agency requires Florida to institute a set of numeric nutrient criteria for its water bodies. This paper investigates the property price benefits of improving the relevant nutrients in central Florida, with a focus on incorporating multiple indicators in a hedonic analysis.

"The Use of Ecological Indexes and Indicators in Water Quality Valuation: Water Quality Index Aggregation and Cost-Benefit Analysis." William Wheeler (U.S. Environmental Protection Agency).

This paper examines the construction of the water quality index commonly applied in valuation studies and how alterations affect cost-benefit analysis, focusing on the aggregation method used to combine water quality variables into a single index. Results indicate that the aggregation method can have a profound impact on estimated benefits.

SESSION: *Coastal and Marine Resources.* Moderator: Dana Bauer (Boston University)

"Economic Impact of the Turtle Excluder Devices Regulation: A U.S. Approach to Reduce Stochastic Sea Turtle Bycatch." Zinnia Mukherjee (University of Connecticut).

We develop a theoretical model to analyze the three ways in which a more stringent turtle excluder devicers (TED) regulation leads to a lower domestic supply, when fishers engage in some avoidance behavior and monitoring is imperfect.

"Economic Evaluation of a Catch Share Program: Evidence from Rhode Island's Fluke Fishery Sector Pilot Program." Andrew Scheld (University of Rhode Island).

A 24-equation inverse demand model was developed to evaluate the economic impacts of a catch share management pilot program in the 2009 Rhode Island summer flounder fishery. Results indicate that participating fishermen experienced substantial revenue increases from market timing advantages, while non-participants were not adversely affected.

"Estimating the Recreational Value of Changes in Beach Access to Mid-Atlantic Beaches." Stela Stefanova, George Parsons, and Georgi Spiridonov (University of Delaware).

We value the recreational use of 66 Mid-Atlantic beaches. The results provide damage assessment of environmental or policy events causing beach closures. Alternative-specific constant models produce results similar to richer specifications, indicating their usefulness for beach closure applications if sufficient data on beach attributes are unavailable.

"The Influence of Beach Awareness on the Economic Value of Beach Nourishment Projects." Georgi Spiridonov and George Parsons (University of Delaware).

We develop and estimate choice set formation models based on the level of awareness about beaches. We compare the results with traditional recreation demand models and simulate the welfare gains from increases in beach width. The magnitude of the gains depends significantly on the specification of the choice set.

SESSION: *Rural and Regional Development.* Moderator: John Halstead (University of New Hampshire)

"New England Firms' Willingness to Hire Retirees." Douglas Morris, Lyndon Goodridge, and Alberto Manalo (University of New Hampshire).

Seventy percent of the businesses surveyed indicated an interest in offering positions to quali-

fied retirees. The majority of firms were willing to pay at least the median wage as reported by the Department of Labor across 21 categories. Thirty-two percent of the firms have positions that could be filled by retirees.

"Later Life Farming: Retirement and Succession Concerns of Farm Households." Robin Brumfield, Barbara O'Neill, Robert Mickel, and Stephen Komar (Rutgers University).

We conducted focus group sessions with 13 farm families in two New Jersey counties to inform development of "Later Life Farming: Creating a Retirement Paycheck," an online course developed to help farm families achieve financial security in later life, whether they choose to stop working or not.

"Measuring the Effects of Social Capital and Land Use on Quality of Life: Two Case Studies." John Halstead, Patricia Jarema, and Shannon Rogers (University of New Hampshire).

Social capital is an emerging theme in quality of life and sustainability studies. Using case studies at different spatial scales, we illustrate how land use and social capital affect quality of life. Land use is shown to be linked to measures of social capital at regional and neighborhood scales.

SESSION: *Water*. Moderator: Lynne Lewis (Bates College)

"Quantitative Restrictions and Residential Water Demand: Spatial Analysis of Neighborhood Effects." Mahesh Ramachandran and Robert Johnston (Clark University).

This article investigates the role of spatial pattern in residential outdoor water use and implications for the efficacy of non-price restrictions. Drawing on a spatially explicit dataset, we characterize latent neighborhood effects in households' outdoor water use and how these effects vary during water restrictions.

"Sustainable Groundwater Irrigation with Induced Technology under Uncertainty." Glenn Schaible, C.S. Kim, and Marcel Aillery (Economic Research Service, USDA).

Climate change forecasts indicate significant effects on available water supplies for U.S. irrigated agriculture, including groundwater supplies. We present economic and policy information advantages of a new conceptual framework for groundwater management—one that accounts for the uncertainty of technical change induced as a result of expected rising pumping costs.

"Optimal Allocation of Water Quantity While Considering Downstream Water Quality: A Case Study of the Nakdong River Basin in South Korea." Taeyeon Yoon (University of Connecticut), Yoon Lee (Korea Environment Institute), and Farhed Shah (University of Connecticut).

A model is developed to determine optimal upstream water use and water purification efforts while considering downstream water quality. Application to the Nakdong River basin indicates that efficient management of existing water resources is economically more desirable than new source development. Climate change considerations can change this conclusion.

"There's Water, But Can We Use It?" Mark Sperow (West Virginia University).

This paper assesses the economic potential for using produced water from oil and gas operations and saline water displaced from carbon dioxide injection for industrial, irrigation, or power plant cooling. Cost-benefit analyses are combined with geographic information data to account for the spatial variability of water quality and potential uses.

SYMPOSIUM SESSION: *Bioenergy Demand, Economics, and Feedstock Supply*. Moderator: Margaret Brennan-Tonetta (Rutgers University)

This symposium presents a selection of papers that deal with economic issues critical to the development of a viable bioenergy industry. These include consumer demand for, and perceptions of, biofuels, economic feasibility of alternative energy technologies, and estimation of biomass feedstocks to support them.

"What Will New England Consumers Demand from Their Biofuels?" Caroline Noblet, Mario Teisl, and Katherine Hassett (University of Maine).

We utilize survey data to understand consumer knowledge and perceptions of biofuels. We find

that knowledge and perceptions vary widely, particularly geographically. Results suggest that consumers have existing and often conflicting preferences for various fuels along energy and economic security, and environmental dimensions. Implications for market acceptance are provided.

"An Economic Assessment of Converting Horse Manure to Bioenergy for On-Farm and Regional Application." Kevin Sullivan, David Babson, Margaret Brennan-Tonetta, Arend-Jan Both, and Donna E. Fennell (Rutgers University).

This research addresses the economic feasibility of anaerobic digestion of horse manure for biofuel production. Cost-benefit analysis is used to quantify economic benefits of three scales of digesters, identify factors contributing to economically feasible bio-digestion, and determine optimal factor ranges for best transfer methods of bio-digestion technologies to the field.

"Estimating the Supply of Woody Biomass for Energy Use in Pennsylvania." Marc McDill (Penn State School of Forest Resources).

This paper discusses a methodology for providing spatially explicit estimates of the amount of wood available for use as an energy feedstock as a function of the price that a user is willing to pay. A preliminary application of the methodology is presented for Pennsylvania.

"Methodology and Decision Support Tool for Estimating Statewide Bioenergy Potential." Margaret Brennan-Tonetta (Rutgers University).

This paper provides a methodology for determining realistic biomass quantities, as well as an overview of a unique decision support tool that considers over 40 bioenergy feedstocks and 13 bioenergy technologies to yield bioenergy potential at the state and county levels.

SESSION: *Knowledge, Attitudes, and Behavior.* Moderator: Allison Borchers (University of Delaware)

"International Knowledge Spillovers in the U.S. Wind Energy Industry." Gerald Simons and Paul Isely (Grand Valley State University).

We analyze how innovation in the U.S. wind energy industry has been impacted by changes in U.S. regional and federal government energy policies and by technology spillovers from wind turbine manufacturers in Europe. We find that government energy policies resulted in greater knowledge spillovers from Europe to the U.S. wind energy industry, with the magnitude of the effect varying substantially by country and by the particular policy.

"Private Provision of Environmental Public Goods and Collective Beliefs Formation: To What Extent Ecolabeling Schemes Are Effective." Louis Jaeck (Université Paul Cézanne).

This paper investigates the role of information in the analysis of the supply of environmental public goods by the market process. It focuses on the demand side and argues that the information conveyed by the social process may affect consumers' decisions and might overcome the free-riding problem.

"A Call from the Wilderness: Choosing Alaskan Oil or Wildlife." Deep Mukherjee and Nataliya Plesha (University of Connecticut).

American public opinion on oil-drilling in Alaska's Arctic National Wildlife Refuge (ANWR) divides into two opposing groups: pro-environment and pro-development. This paper analyzes demographic and socioeconomic drivers of these conflicting positions using discrete choice models, following classical and Bayesian approaches. Our research findings will be of interest to pro- and anti-development groups.

"Outdoor Recreation and Environmental Concern: Exploring a Simultaneous Relationship." Katherine Hassett, Mario Teisl, and Caroline Noblet (University of Maine).

Using survey data collected over several years, we expand the scope of a previous study to test a model that explores the simultaneous relationship between environmental concern and participation in outdoor recreation.

SESSION: *Spatial Analysis.* Moderator: Jill Caviglia-Harris (Salisbury University)

"Pricing Spatial Basis Risk for Weather Index Insurance." Michael Norton (Columbia University), Calum Turvey (Cornell University), and Dan Osgood (Columbia University).

This paper examines the problem of spatial basis risk for weather index insurance by investigating the spatial characteristics that are useful in pricing weather risk, and proposes a simple, transparent pricing mechanism for pricing weather derivatives at a random location.

"Neighborhood Spillover Effects Between Rezoning and Housing Price." Seong-Hoon Cho, Ji Young Kim, and Roland Roberts (University of Tennessee).

The objective of this research was to investigate neighborhood spillover effects between rezoning of vacant parcels and housing price. The study is unique in that it correctly highlights the need to analyze the dynamics of zoning structure and accommodates the neighborhood spillover effects associated with the real estate market.

"Dynamics of Deforestation and Development on the Amazon Frontier." Katrina Mullan (North Carolina State University), Subhrendu Pattanayak (Duke University), Erin Sills (North Carolina State University), and Jill Caviglia-Harris (Salisbury University).

This paper examines the benefits of deforestation for small farm households in the Brazilian Amazon. Household-level panel data are used to estimate the dynamic and multi-directional relationships between deforestation, income generation, and asset accumulation. We find that deforestation is associated with increased farm income, although this does not appear to be translated into increases in wealth over time.

"The Impact of Settlement Design on Tropical Deforestation Rates and Spatial Patterns." Jill Caviglia-Harris and Daniel Harris (Salisbury University).

This paper investigates different policy approaches in regards to settlement design, time of settlement, and the size of properties to determine impacts on land use and land cover change in a frontier region of the Brazilian Amazon.

SESSION: *Dairy*. Moderator: Sanjib Bhuyan (Rutgers University)

"China's Evolving Dairy Market and Potentials for U.S. Exports." Guangxuan Zhang, Qingbin Wang, and Robert Parsons (University of Vermont).

While China has emerged as a large importer of U.S. dairy products, this paper reviews the trends of China's dairy production and demand, analyzes China's import patterns and potentials for the United States, and discusses options for the U.S. dairy industry to maintain and enhance its competitiveness in the Chinese market.

"Impact of Participation in Cooperatives on the Profitability of Dairy Farms in the Northeast." Sanjib Bhuyan (Rutgers University).

Past research has established the necessity of farmer participation for a cooperative's success. However, there is a lack of study on whether participating in cooperatives benefits farmers. The aim here is to address that important issue for the northeastern United States using the 2005 ARMS dairy data.

"Organic Dairy Farming in the Northeast: Results of a 5-Year Study." Robert Parsons and Qingbin Wang (University of Vermont).

A 5-year study confirms that smaller Northeastern organic dairy farms have been more profitable than conventional neighbors over the past 5 years. Organic dairy farms account for 20 percent of farms in the Northeast; although with smaller herds and less productive, these farms present an opportunity to revitalize rural communities.

"Asymmetric Impacts of the 2008 Milk Contamination Events on Dairy Firms' Stock Prices." Yanhong Jin and Chen Gao (Rutgers University).

This study investigates the impacts of the 2008 China milk contamination incidents on all relevant publically traded dairy companies. The size and persistence of the impacts were different between firms with negative and positive test results, and between firms traded in different markets.

SESSION: *Food Safety*. Moderator: David Just (Cornell University)

"Cognitive Dissonance in Eating Behavior Under Food-Borne Risk: A Lab Experiment." Ying Cao, David Just, and Brian Wansink (Cornell University).

Cognitive dissonance biases the impact of food safety information on consumer behavior depend-

ing on familiarity of the food. With common foods, participants are more likely to display bias and fail to respond to food safety information. With less familiar foods, participants may be sensitive enough to overcome the psychological bias.

"Do Food Safety Standards Hurt Exports? Evidence from Developing Countries." Olufemi Bolarinwa and Titus Awokuse (University of Delaware).

This study re-examines the impact of food safety standards on groundnut trade flows between African and European Union countries using the theoretically consistent gravity model which adequately resolves the endogeneity problem and thus produces consistent policy variable estimates.

"The Effect of Food Safety Regulations on the International Trade in Shrimp." George Szczepanski and Titus Awokuse (University of Delaware).

This paper examines the impact of food safety regulations on international trade by utilizing a gravity model of trade to analyze exports of shrimp from top producers from 1995 to 2007. Preliminary results indicate that the effect of food safety regulations is minimal, and that participation in trade associations is more notable.

"Using Best-Worst Scaling Technique to Investigate People's Perceptions of Control and Concern over Food and Non-Food Risks." Seda Erdem and Dan Rigby (University of Manchester).

This research locates a series of food and non-food risks within a framework characterized by the level of control that respondents believe they have over the risks and the level of worry the risks prompt. The means by which this is done is novel and investigates this across different social groups.