

Zwick Center for Food and Resource Policy Annual Report 2016

March 1, 2017

University of Connecticut

Department of Agricultural and Resource Economics

www.zwickcenter.uconn.edu

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Mission and Focus

Mission

The Charles J. Zwick Center for Food and Resource Policy is driven by excellence in quantitative and policy oriented economic research on problems confronting food and energy markets, the use of natural resources, and the environment. The intent is to provide practical recommendations to improve the functioning of markets and related government policies and to advance and disseminate knowledge that impacts public policies to improve society's welfare. Key users include private firms, consumer organizations, non-profit organizations, scholars, public agencies, and policy makers.

Areas of Focus

The Center's endowment makes it possible to elevate the Department's national prominence, and to focus on high-priority policy and quantitative studies to solve problems in three signature areas:

- **Food Marketing and Industrial Organization**
- **Environmental and Natural Resource Economics**
- **Economic Development**

Advisory Board

Ronald Cotterill is Professor Emeritus of Agricultural Economics and Economics at the University of Connecticut, and Director Emeritus of the Zwick Center. During his thirty years as a professor, he taught hundreds of students and authored dozens of books, monographs, journal articles, and other works. An internationally renowned expert on the organization and performance of food industries, he has testified before Congress and state legislatures regarding industrial and antitrust issues, and has served as the editor of *Agribusiness* and on the editorial board of the *Journal of Supply Chain Management*. Email: ronald.cotterill@uconn.edu

Richard DeFavero is the founder of DeFavero Builders, a commercial construction company, and an active supporter of the University of Connecticut. An alumnus of the University, he is a recipient of the Augustus and Charles Storrs Award, a lifetime member of the UConn Alumni Association, and provided the gift to endow the DeFavero Chair of Agricultural and Resource Economics.

Steven Reviczky is Commissioner of the Connecticut Department of Agriculture. He served as the Executive Director of the Connecticut Farm Bureau Association from 2006 until his appointment as Commissioner in 2011. As Executive Director, he was responsible for the day-to-day operations of the Association and was directly engaged in working with state and local officials, and Congress advocating on matters important to Connecticut's farmers. Email: Steven.Reviczky@ct.gov

Robert Smith is Senior Vice President of Farm Credit East, ACA, which serves over 13,000 customers throughout seven Northeast states. He has led efforts to advocate on behalf of farmers at the legislative level, and has testified in front of Congress and state legislatures. Email: Robert.Smith@FarmCreditEast.com

Henry Talmage is Executive Director of the Connecticut Farm Bureau, where he oversees the state's chief advocacy group for farms and farmers. Previously, he served as the first executive director of the Connecticut Farmland Trust and as president of the Long Island Farm Bureau. Email: henryt@cfba.org

Michael Willig is a Professor in the Department of Ecology and Evolutionary Biology and Director of the Center for Environmental Sciences and Engineering at UConn. His areas of expertise include the application of quantitative and statistical techniques to understand the ecology and conservation of coupled human and natural systems. Email: michael.willig@uconn.edu

Zwick Center Personnel

Staff

Rigoberto Lopez

Director, Professor

Food Marketing and Industrial
Organization, Food Policy



Rebecca Boehm

Postdoctoral Fellow

Economics of Food, Health, and
the Environment



Supporting Staff

Mahdi Fallahi

Data Management



Amanda Arroyo

Marketing and Communications



Affiliates

Tatiana Andreyeva – Associate Professor
Health Economics, Food Policy

Emma Bojinova – Lecturer
Health Economics, Industrial Organization

Boris Bravo-Ureta – Professor
International Agricultural Development, Production Economics

John Bovay – Assistant Professor and Extension Economist
Environmental and Resource Economics

Ronald Cotterill – Emeritus Director, Emeritus Professor
Food Marketing and Industrial Organization, Food Policy

Richard Dunn – Assistant Professor
Health and Public Economics

Nathan Fiala – Assistant Professor
Food Security, Environment, Development

Robert Pomeroy – Professor
International Development, Fisheries, Marine Policy

Farhed Shah – Associate Professor
Natural Resource and Environmental Economics, Water Policy

Stephen Swallow – Professor
Natural Resource and Environmental Economics, Ecosystem Services, Land-Use Policy

Charles Towe – Assistant Professor
Environmental Economics, Land Use Policy, Policy Evaluation

Fellows

Michele Baggio – Economics, University of Connecticut

Elena Castellari – Agricultural and Resource Economics, University of Connecticut

Xiaoou Liu – Associate Professor, Renmin University of China

Chen Zhu – Assistant Professor, China Agricultural University

2016 Updates

The year 2016 represented the sixth year since the Food Marketing Policy Center was renamed in honor of Charles Zwick. The Zwick Center for Food and Resource Policy continues its mission of developing policy-oriented research and recommendations to confront problems associated with food and energy markets, natural resources, and the environment.

Some highlights from 2016 are:

- Rigoberto Lopez continued his co-editing duties on *Agribusiness*.
- Over the summer, Zwick Center staff had high profile presentations at several key conferences, addressing the Agricultural & Applied Economics Association annual meeting, the Northeast Agricultural and Resource Economics Association annual meeting, and other conferences in the U.S. and abroad.
- The Center funded a pilot project conducted by Professor Fiala, with graduate and undergraduate students, to collect data of extremely poor households in Willimantic, Connecticut. The data collected will support application to a major NSF grant.
- An influx of new grants in 2016 from the U.S. Department of Agriculture and state agencies is enabling staff at the Center to maintain and expand their research projects.
- The Center co-funded a new portable experimental economic laboratory that will be used to test and develop economic theories using data generated from field laboratory experiments. This mobile lab includes 20 tablets and a central computer to enable researchers conduct behavioral field experiments involving consumer food choices and farmers' choices of crops and environmental practices.
- Professors John Bovay and Pengfei Liu joined the department in fall 2016, both of which are affiliates and work with the Center.
- Dr. Adam Rabinowitz resigned and joined the University of Georgia in a tenure-track position in July 2016. He is being replaced by two post-doctoral fellows: Rebecca Boehm (started December 2016) and Shaheer Burney (to start in May 2017).

Publications

Refereed Journal Articles

- Tra, Constant and Charles Towe. 2016. "The Implications of the U.S. Renewable Fuel Standard Programme for Farm Structure." *Applied Economics* 48(8), 712-722 [\[view\]](#)
- Zhu, Chen, Rigoberto A. Lopez, and Xiaoou Liu. 2016. "Information Cost and Consumer Choices of Healthy Foods." *American Journal of Agricultural Economics* 98(1): 41-53 [\[view\]](#)
- Robert Pomeroy, John Parks, Kitty Courtney and Nives Mattich. 2016. "Improving Marine Fisheries Management in Southeast Asia: Results of a Regional Fisheries Stakeholder Analysis." *Marine Policy* 65: 20-29 [\[view\]](#)
- Liu, Y. and R.A. Lopez. 2016. "Social Media Conversations and Consumer Brand Choices." *Marketing Letters* 27(1): 1-13 [\[view\]](#)
- Robert Pomeroy, John Parks, Karina Lorenz Mrakovcich and Christopher LaMonica. 2016. Drivers and Impacts of Fisheries Scarcity, Competition, and Conflict on Maritime Security. *Marine Policy*. 67:94-104 [\[view\]](#)
- Njuki, E., Bravo-Ureta, B. E., Mukherjee, D. 2016. The Good and the Bad: Environmental Efficiency in Northeastern U.S. Dairy Farming. *Agricultural and Resource Economics Review* 45(1): 22-45. [\[view\]](#)
- Liu, P., Swallow, S. 2016. Integrating Co-Benefits Produced with Water Quality BMPs into Credit Markets: Conceptualization and Experimental Illustration for EPRI's Ohio River Basin Trading. *Water Resources Research* 52(5), 3387-3407. [\[view\]](#)
- Pomeroy, R. 2016. A research framework for traditional fisheries: Revisited. *Marine Policy* 70: 153-163. [\[view\]](#)
- Liu, Pengfei, Stephen K. Swallow, Christopher M. Anderson. 2016. Threshold-Level Public Goods Provision with Multiple Units: Experimental Results of Disaggregated Groups with Rebates. *Land Economics* 92(3): 515-533. [\[view\]](#)
- Bovay, J. and Julian M. Alston. 2016. GM Labeling Regulation by Plebiscite: Analysis of Voting on Proposition 37 in California. *Journal of Agricultural and Resource Economics* 41(2): 161-188 [\[view\]](#)

Li, Xun and Rigoberto A. Lopez. 2016. "Food Environment and Weight Outcomes: A Stochastic Frontier Approach." *Applied Economics* 48(47): 4526-4537.[\[view\]](#)

Liu, Yizao and Rigoberto A. Lopez. 2016. "Social Media Conversations and Consumer Brand Choices." *Marketing Letters*, 27(1): 1-13. [\[view\]](#)

Liu, Xun, Rigoberto A. Lopez, and Chen Zhu. 2016. "Information Cost and Consumer Choices of Healthy Foods." *American Journal of Agricultural Economics*, 98(1): 41-53.[\[view\]](#)

Bauer, Michal, Nathan Fiala and Ian Lively. 2017. "Trusting Former Rebels: An Experimental Approach to Understanding Reintegration after Civil War". Forthcoming, *Economic Journal*.

Lopez, Rigoberto A., Xi He, and Eleonora De Falcis. 2017. "What Drives China's New Agricultural Policies?" *World Development*, Forthcoming.

Njuki, E. and B. E. Bravo-Ureta. 2017. "Alternative Policies to Address Emissions in U.S. Dairy Farming." *Choices*, Forthcoming.

Tao, H., T. Morris, B. Bravo-Ureta and R. Meinert. "Analyzing the Implementation of Nutrient Management Plans by Farmers: Implications for Extension Education." *Journal of Extension* 54-6(2016).[\[view\]](#)

Outreach and Research Reports

Rabinowitz, Adam N. and Rigoberto A. Lopez. 2016. "Milk Cost of Production Estimates for October, November, and December 2015." [or41.pdf](#)

Rabinowitz, Adam N. and Rigoberto A. Lopez. 2016. "Milk Cost of Production Estimates for January, February, and March 2016." [or42.pdf](#)

Rabinowitz, Adam N. and Rigoberto A. Lopez. 2016. "Milk Cost of Production Estimates for April, May, and June 2016." [or43.pdf](#)

Bovay, John. 2016. "Milk Cost of Production Estimates for July, August, and September 2016." [or44.pdf](#)

Jeliffe, Jeremy, Boris Bravo-Ureta, C. Michael Deom, and David Kalule Okello. 2016. "The Sustainability of Farmer-Led Multiplication and Dissemination of High-Yield and Disease Resistant Groundnut Varieties." [rr4.pdf](#)

Working Papers

Sun, Shengmin, Rigoberto A. Lopez and Xiaouu Liu. 2016. "Property Rights, Labor Mobility and Collectivization: The Impact of Institutional Changes on China's Agriculture in 1950-1978." [wp41](#)

Hoke, Omer and Richard Dunn. 2016. "The Effect of Early ACA Medicaid Expansion on Mental Health." [wp42](#)

Hu, Lifang, Rigoberto A. Lopez and Yinchu Zeng. 2016. "The Impact of Credit Constraints on the Performance of Chinese Agricultural Wholesalers." [wp43](#)

Presentations

Chen, Xuan, Adam N. Rabinowitz, and Yizao Liu. "Private Label Competition and Retailer Market Power: The Case of Fluid Milk in New England." Selected paper presentation accepted for the AAEA Annual Meeting, Boston, MA, July 31-August 2, 2016.

Liu, Yizao, Adam N. Rabinowitz, Xuan Chen, and Benjamin Campbell. "Demand for Niche Local Brands in the Fluid Milk Sector." Selected paper presentation accepted for the AAEA Annual Meeting, Boston, MA, July 31-August 2, 2016.

Liu, Yizao, Adam N. Rabinowitz, and Xuan Chen. "Heterogeneous Effects of Private Label and Branded Products on Farm-Retail Price Transmission: The Case of the U.S. Fluid Milk Market." Selected paper presentation accepted for the AAEA Annual Meeting, Boston, MA, July 31-August 2, 2016.

Rabinowitz, Adam N., Elena Castellari, and Marcello Graziano. "Open-Close-Open: Evaluating the Effect of Changes in Food Access Options on Housing Prices. Evidences from New Haven, CT." Invited paper presentation accepted for the AAEA Annual Meeting, Boston, MA, July 31-August 2, 2016.

He, X. and R.A. Lopez. "Do Firms Advertise to Maximize Profits? Evidence from the Food Industries." Selected paper, Agricultural and Applied Economics Association Meetings, July 31-August 2, 2016, Boston, MA.

Tiboldo, G, Lopez, R.A. and S. Hirsch. "Private Label Market Power: Evidence from the Italian Milk Sector." Selected paper, Agricultural and Applied Economics Association Meetings, July 31-August 2, 2016, Boston, MA.

Hu, L., Y. Zeng, and R.A. Lopez. "The Impact of Credit Constraints in Chinese Agricultural Wholesale Markets." Selected paper, Agricultural and Applied Economics Association Meetings, July 31-August 2, 2016, Boston, MA.

He, X., R.A. Lopez, Y. Liu. "Are Online and Offline Advertising Substitutes or Complements? Evidence from U.S. Food Industries." Selected presentation, INFORMS Marketing Science Conference, June 16-18, 2016, Shanghai, P.R. China.

Chen, Xuan, Adam N. Rabinowitz, and Yizao Liu. "The Impact of Price Regulations on Farm-Retail Price Transmission: The Case of Fluid Milk." Selected paper presentation accepted for the Southern Agricultural Economics Association Annual Meeting, San Antonio, TX, February 6-9, 2016.

Rabinowitz, Adam N., Madiha Zaffou, and Benjamin Campbell. "Spillover Effect of Participation in the Women, Infant and Children (WIC) Program on Consumers' Purchasing Behavior of Private Label Goods." Selected paper presentation accepted for the Southern Agricultural Economics Association Annual Meeting, San Antonio, TX, February 6-9, 2016.

Liu, X., R.A. Lopez, and C. Zhu. "Can Voluntary Nutrition Labels Improve the Healthfulness of Food Markets?" Invited Paper, Allied Social Science Association Meetings, January 4-6, 2016, San Francisco, CA.

External Grants

U.S. Department of Agriculture, Agriculture and Food Research Initiative (Foundational Grants Program), "Enhancing the Competitiveness of U.S. Fluid Milk through Marketing and Public Policy." Submitted April 30, 2016, \$499,000.

American Cheese Society, "U.S. Artisan and Specialty Cheese Industry Census." January 2016 – December 2016. \$24,000.

Connecticut Food Policy Council, "Community Food Security in Connecticut." October 2015 – December 2016. \$15,000.

Connecticut Department of Agriculture, "Estimation of Milk Cost of Production." January 2015 – March 2017. \$22,500.

U.S. Department of Agriculture, Foreign Agricultural Service, "University of Connecticut Foreign Exchange Program"-August-December 2016, \$80,000. Not funded.

USDA Agriculture Food and Research Initiative, Childhood Obesity Prevention Challenge Area, “Nutrition Quality of Foods in Non-CACFP Child Care Centers.” February 2015 – June 2016. \$149,603.

USDA Federal State Marketing Improvement Program, “Growing Local Milk: Analysis of Consumer Demand and Marketing Practices.” September 2014 – September 2016. \$47,807.

Seminar Series

The Zwick Center is a co-sponsor of the Department of Agricultural and Resource Economics seminar series

Friday, 1/29/16 - Speaker: Pia Raffler, Yale University

Lecture Title: Bureaucrats versus Politicians. A Field Experiment on Political Oversight and Local Public Service Provision

Friday, 2/12/16 - Speaker: Katherine Zipp, Pennsylvania State University

Lecture Title: The Social-Ecological Dynamics of Aquatic Species Invasions on a Lake-Rich Landscape

Friday, 2/26/16 - Speaker: Nathan Fiala, University of Connecticut

Lecture Title: Business is Tough, but Family is Worse: How Family Constrains Microenterprise Development in Uganda

Friday, 3/4/16 - Speaker: Jean-Paul Chavas, University of Wisconsin-Madison

Lecture Title: Coase Revisited: Economic Efficiency under Externalities, Transaction Costs and Non-Convexity

Friday, 3/25/16 - Speaker: Ana Vax, Oxford Poverty and Hunger Initiative, University of Oxford

Lecture Title: Impact Evaluation using a Multidimensional Framework

Friday, 4/1/16 - Speaker: Kathleen Segerson, University of Connecticut

Lecture Title: Re-evaluating Voluntary Programs with Information Spillovers

Friday, 4/29/16 - Speaker: Brent Hueth, University of Wisconsin-Madison

Lecture Title: Missing Markets and Cooperative Enterprise

Friday, 9/2/16 - Speaker: Rebecca Boehm, Tufts University

Lecture Title: The Carbon Footprint, Nutritional Quality, and Cost of U.S. Household Diets: New Evidence from the National Household Food Acquisition and Purchase Survey

Friday, 9/9/16 - Speaker: Craig Gundersen, University of Illinois at Urbana-Champaign

Lecture Title: Addressing Food Insecurity in the United States: What We Know and What We Need to Know

Friday, 9/16/16 - Speaker: Xuan Wei, University of Florida

Lecture Title: Imperfect Substitution between Immigrant and Native Farm Workers in the United States

Friday, 9/23/16 - Speaker: Jane Gu, University of Connecticut

Lecture Title: Consumer Social Sharing and Firm Competition

Friday, 10/14/16 - Speaker: Kent Messer, University of Delaware

Lecture Title: Behavioural Nudges in Competitive Environments: a Field Experiment and Replication Examining Defaults and Social Comparisons in a Conservation Contract Auction

Friday, 10/21/16 - Speaker: Richard Dunn, Boris Bravo-Ureta and Stephen Swallow, University of Connecticut

Lecture Title: How to Win a NIFA Research Grant Award? Tips from the Winners

Friday, 10/28/16 - Speaker: John Bovay, University of Connecticut

Lecture Title: Economic Effects of the U.S. Food Safety Modernization Act

Friday, 11/18/16 - Speaker: Pengfei Liu, University of Connecticut

Lecture Title: The Unintended Effect of Rebates: A Field Experiment on Energy Saving

Friday, 12/2/2016 - Speaker: Adam Osman, University of Illinois at Urbana-Champaign

Lecture Title: Selection into Job Training Programs

Other Funded Activities

- Supplementary graduate student funding
- Funding for travel for graduate students and faculty
- Funding supporting staff salary
- Collaboration with state agencies and partners
- Support to recruit new faculty
- Data purchases
 - University of Chicago
 - Kilts Center
 - Mintel
 - Kantar Media
- Scholarships for two students:
 - Leticia Riva (Ph.D.)
 - Risa Lewis (B.S.), Honors student



Future Directions

The Zwick Center for Food and Resource Policy at the University of Connecticut is in a position to lead cutting edge research, education, and outreach in economic and business analyses in Connecticut. This includes a combination of engaging research studies on agricultural economic impacts, quantitative evaluation of public policies, feasibility studies, increasing local and healthy food consumption and enhancing food security and environmental sustainability.

Research

Research studies on economic impacts, feasibility, and food systems will be conducted in the next three years within the following three areas:

- (a) Economic impacts at the sector level
 - a. Assessment of trends in the industry
 - b. Assessment of the state regulatory environment
 - c. Current contribution of the state's agricultural industry
 - d. Budgeting and financial analysis
 - e. Vetting the profitability of new products and technologies
 - f. Conducting market assessments for new and existing products
 - g. Establishing a clearing house for information

- (b) Food systems research
 - a. Assessment of local food expenditure

- b. Evaluation of household and community food security
 - c. Enhancement of nutrition and food policy outreach
 - d. Establishing a clearing house of food systems data
 - e. Evaluation of the healthiness and environmental sustainability of food choices
- (c) Climate change and environmental sustainability
- a. Assessment of impact of climate change on agricultural sector
 - b. Valuation of the environmental benefits provided by agricultural sector
 - c. Assessment of solar and other renewable energy production potential on farms and non-prime agricultural land
 - d. Policy recommendations to protect Connecticut producers from adverse weather events due to climate change

The Center continues to support Ph.D. students with graduate assistantships and fellowships and post-doctoral fellows to participate in related research projects and training in pertinent areas. We further enhance this development through the provision of travel support to disseminate work at academic conferences and through the publication of the Working Paper Series, Outreach Series, and Research Report Series. Over 90 publications have been widely distributed since 2011 through these three publication series.

Outreach

Within the research focus outlined above, the Zwick Center will produce peer-reviewed academic journal publications, outreach publications, and impact decision making through dissemination and direct communication with policy makers. Human capital development, through graduate assistantships in the existing M.S. and Ph.D. programs will also occur in the pertinent areas. In addition to the standard research and education models, the Zwick Center's mission of improving society welfare is further aided by UConn's commitment to community engagement in research and teaching.

Impact

To aid in understanding the potential impact and outreach activities we have outlined a few examples of recent work and outcomes below:

One example of the type of impact the Zwick Center has had in recent years is with the dairy program research performed by the Zwick Center since 2011. This research has resulted in over a dozen publications from the Zwick Center, as well as support for the administration and continuation of a dairy support program to aid dairy farmers in Connecticut. Over \$5 million has been distributed to dairy

farmers resulting in the addition of about 75 jobs per year and roughly \$10 million in additional annual sales for the industry.

A second example is conducting studies to support policy decisions and implementation such as a series of economic impact reports involving Connecticut agriculture, forestry, and fishery industries. With the initial report released in 2010 on the economic impact of Connecticut agricultural industry and another report specifically requested by the legislature to implement Public Act 09-229 on the economic impact of the dairy industry, two additional reports have been issued in partnerships with Farm Credit East involving impacts of agriculture, forestry and fisheries in the Northeast, including Connecticut. Additional reports focusing on the maritime industries and local foods have also been issued and well-received by stakeholders and policy makers alike. Currently, Connecticut's agricultural industry impacts spent in 2010 is due to be released in June 2017.

A third example is the community food security work that the Zwick Center has continued. With the initial report in 2005 and the subsequent report in 2012, this research has generated substantial media attention through television, print, and Internet, not just in Connecticut but across the United States including Washington, D.C. and San Francisco, California. This report has served to facilitate the organization of several advocacy groups and has prompted legislators and NGO's to take focus on the problems associated with food security in Connecticut towns. A subsequent project started in 2016 is currently underway.

The Zwick Center will lead these education, research, and outreach programs in partnerships with government, academic, and advocacy groups. Potential partners with whom we have existing relationships includes state and city governments such as the State of Connecticut, the Connecticut Food Policy Council, and the Governor's Council for Agricultural Development; University of Connecticut faculty and staff including the Department of Extension, Office of Public Engagement, and the Center for Health, Intervention, and Prevention including the newly affiliated Rudd Center for Food Policy and Obesity; advocacy groups including End Hunger Connecticut and the Hartford Food System. In the next three years, the Center will continue its path of excellence in research and outreach with a focus on quantitative assessments of policy impacts to inform policy decisions to ensure that the agriculture, forestry, and fishery industries in Connecticut are both economically and environmentally sustainable for the current and future generations.