

# What we do & Why it matters

## Agricultural and Consumer Economics | [ace.illinois.edu](http://ace.illinois.edu)

The Department of Agricultural and Consumer Economics is comprised of world-renowned faculty whose research and outreach programs influence national and international policymaking on issues ranging from how producers, consumers, and agribusinesses manage risk and adapt to climate change to the impacts of new technologies, environmental regulations, federal laws on profitability and human well-being.

### **SEAN FOX** (department head)

Dr. Fox uses surveys, market experiments, and retail trials to investigate how consumers value new food attributes and improvements in food safety. He studies the differences in valuation that occur between hypothetical and non-hypothetical situations, and how new information about products or technologies influences their valuation.

### **AMY W. ANDO** (professor)

Dr. Ando helps conservation agencies and groups maximize the benefits people glean from investments to protect nature. She helps conservation agents decide where conservation should be, how long conservation contracts should last, and how we can reduce the risk of future conservation failure. She quantifies the benefits people gain from the environment and studies how those benefits are distributed among different groups of people.

### **MARY ARENDS-KUENNING** (associate professor)

Dr. Arends-Kuenning studies the decisions that households make about fertility, schooling, and work. She examines the implications of these decisions for household members' present and future well-being.

### **KATHY BAYLIS** (associate professor)

Dr. Baylis helps stakeholders design agricultural, conservation, and trade policy to promote ecosystem preservation and international food security. She assesses the effectiveness of interventions and their consequences for global food security, the environment, and social welfare.

### **DAVID S. BULLOCK** (professor)

Dr. Bullock improves the way the world fertilizes its crops. He leads a multinational project that uses precision agriculture technology and the Global Positioning System (GPS) to conduct on-farm field trials in the Northern and Southern Hemispheres. He studies how fertilizer management, soil characteristics, and weather interact to affect crop yields in order to help farmers fertilize more efficiently, which lowers production costs and improves water quality.

### **PETER CHRISTENSEN** (assistant professor)

Dr. Christensen leads a team of economists and computer scientists that are integrating new forms of data, machine learning algorithms, and large-scale experiments into economic research in his role as a core faculty member at the National Center for Supercomputing Applications (NCSA). He focuses on energy and environmental economics, particularly as related to public goods provision in cities around the world.

### **JONATHAN COPPESS** (clinical assistant professor)

Mr. Coppess' experience in federal policymaking guides his research, extension, and teaching in agricultural policy and law. His work connects the history of federal agricultural policy development to current policy development, specifically applied to risk management and natural resource conservation.

### **BEN CROST** (assistant professor)

Dr. Crost explores the mechanisms through which climate change and development aid interventions affect agriculture and civil conflict. Understanding these mechanisms is important for the design of adaptive policies that can prevent conflict and limit the negative effects of climate change on agriculture and human well-being.

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### **SANDY DALL'ERBA** (associate professor)

Dr. Dall'Erba advances our understanding of the impact of climate change and associated extreme weather events such as droughts and floods on our economy, agricultural productivity, and on water scarcity. He also improves regional economic development models and assesses the impact of regional development policies.

### **BRENNA ELLISON** (assistant professor)

Dr. Ellison studies how people make food choices, particularly how consumers use information in their food choice decisions, in order to promote consumer health and well-being.

### **A. BRYAN ENDRES** (professor)

Dr. Endres studies the impact of law throughout food and bio-products supply chains and develops solutions to improve regulatory outcomes. He explores a range of issues, including legal structures to support farms engaged in direct marketing, small farm regulatory compliance, liability issues relating to use of genetically engineered seed, and developing cooperative legal structures to better manage invasive plants.

### **PHILIP GARCIA** (professor)

Dr. Garcia studies agricultural commodity futures and options markets. He investigates how prices are determined, the uncertainty that exists, and how producers and market participants can use these markets to manage the risks they face in their business operations.

### **PETER D. GOLDSMITH** (associate professor)

Dr. Goldsmith brings new ideas about markets, commercial practices, and management to help small- and medium-scale farmers escape the trap of persistent poverty while helping small agribusinesses establish a vibrant private sector. He leads USAID's Feed the Future Lab for Soybean Value Chain Research bringing 50 researchers across 15 countries together to develop soybean as a technology to reduce poverty and malnutrition in the poorest countries of the world. He is using his soybean research and teaching experience over the past 15 years in Brazil and Argentina to make a difference in Africa and other developing countries.

### **BENJAMIN M. GRAMIG** (associate professor)

Dr. Gramig works on issues at the interface between humankind and the environment related to water quality and quantity, and climate change mitigation and adaptation. He conducts research to understand farmer behavior, and designs policies and programs to increase economic efficiency in agricultural conservation. He develops decision support tools and conducts outreach to train extension educators and farm advisers.

### **CRAIG GUNDERSEN** (professor)

Dr. Gundersen informs policymakers and program administrators who are seeking paths to reduce food insecurity and its consequences. Over 40 million Americans live in food insecure households and, due to serious health consequences, food insecurity has become one of the leading health care crises in the United States. He evaluates food assistance programs, with a particular emphasis on the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program).

### **TODD HUBBS** (clinical assistant professor)

Dr. Hubbs performs outlook analysis and research for commodities of importance to Illinois farmers. He develops price forecasting models and risk assessments for agricultural commodities, financial variables, and production issues related to Illinois farming.

### **SCOTT H. IRWIN** (professor)

Dr. Irwin helps farmers in Illinois, the United States, and throughout the world make more informed production, marketing, and financial decisions by evaluating the economic factors that affect corn and soybean prices. He also leads *farmdoc*, a pathbreaking Extension project that provides timely, useful, and relevant online information about Corn Belt farm economics.

### **MADHU KHANNA** (professor)

Dr. Khanna examines the motivations for producers to adopt innovative production technologies to meet demands for food and fuel, such as precision farming, biofuels, and to participate in conservation programs. Her work informs stakeholders and policy makers about the cost-effectiveness of various policy approaches to improve environmental quality and their implications for farm profitability, land use and food and fuel production.

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### **TODD KUETHE** (clinical assistant professor)

Dr. Kuethe helps policymakers, farmers, and landowners make better decisions to ensure a safer, more flexible, and more stable agricultural economy. Farm real estate accounts for more than 80% of the U.S. farm sectors asset base and serves as the primary source of collateral in farm loans. He studies a variety of issues related to farm real estate markets, agricultural credit, and agricultural policy.

### **CRAIG LEMOINE** (director of Financial Planning Program)

Dr. Lemoine leads the Financial Planning Program in the College of ACES. He prepares students to enter a profession that can change the lives and financial outcomes of clients, families, and their businesses. He teaches students to become wealth managers, insurance professionals, and Certified Financial Planning™ professionals.

### **ANGELA LYONS** (associate professor)

Dr. Lyons works closely with industry, education, and government to build practical, sustainable, and measurable models that offer innovative solutions for improving the financial stability of families and communities worldwide. She focuses on emerging issues in economic and financial inclusion, poverty and wealth inequality, financial education, and consumer financial protection.

### **MINDY MALLORY** (associate professor/undergrad director)

Dr. Mallory examines the effects of electronic trading on liquidity costs and price discovery in commodity futures markets. She is advancing our understanding about how markets digest information minute by minute and second by second, and is working to develop tools to mitigate risk in a variety of settings.

### **PAUL MCNAMARA** (associate professor)

Dr. McNamara develops and strengthens extension services to help them meet the needs of some of the world's poorest smallholder farmers in places like Ghana, Kenya, and Malawi. Through his AgReach Program, he assists organizations and programs that reach over 12 million smallholder farmers and helps them to improve their agricultural productivity, increase their incomes, and achieve better household food security.

### **HOPE MICHELSON** (assistant professor)

Dr. Michelson studies the dynamics of poverty and security in low-income countries where market failures are a fact of life. One of her key subjects is the interaction of international development efforts with local and large-scale agribusiness. She investigates how small farmers respond to the expansion of international supply chains, the sourcing of agricultural products, and the buying and selling of agricultural inputs.

### **ERICA MYERS** (assistant professor)

Dr. Myers provides new evidence on the causes of the “energy efficiency gap”—consumers’ apparent under-investment in energy efficiency given many measures could pay for themselves in a short period. She identifies market failures for energy efficiency investments and quantifies the effects of policy solutions for those market failures. She informs the design of recent international and regional greenhouse gas reduction policies, which rely heavily on energy efficiency investments to meet their targets.

### **CARL H. NELSON** (associate professor)

Dr. Nelson’s research impacts the evaluation of food policies by highlighting errors in impact measurements that fail to account for household budget constraints and substitution in response to relative price changes. He focuses on the economic impacts of market outcomes like commodity price spikes, economic development projects, and human health outcomes like child stunting from malnutrition.

### **HAYRI ONAL** (professor)

Dr. Onal applies mathematical methods and develops computer models to find improved or best solutions to problems involving operations management and economic analysis of complex decision-making situations. His recent research focuses particularly on environmental and resource economics, renewable energy, and conservation of ecosystems.

### **NICK PAULSON** (associate professor/grad director)

Dr. Paulson helps agricultural producers make the best farm- and risk-management decisions possible to optimize profitability and environmental sustainability. He analyzes government policies impacting agriculture, including crop insurance, commodity, and biofuels programs.

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### **MICHEL ROBE** (professor)

Dr. Robe provides insight on the financialization and the automation of commodity trading. His research reveals their impact on commodity pricing and market liquidity. He is advancing our understanding of the causes and consequences of price volatility in financial and commodity markets, improving grain price forecasting.

### **GARY D. SCHNITKEY** (professor)

Dr. Schnitkey uses Farm Business Farm Management (FBFM) data on revenue and costs to analyze profitability of major field crops and to assess impacts of farm programs and risk management strategies. His research informs farmers of the most profitable rotations and encourages long-term change to impact yield.

### **JON SCHOLL** (instructor)

Mr. Scholl leads experiential learning programs that build leadership skills and knowledge of the policy process at the local, state, and federal levels of government. These courses help students understand in a real-world context how policy affects them and how they can constructively engage in the policy-making process.

### **TERESA SERRA** (associate professor)

Dr. Serra studies agricultural commodity financial markets, including price discovery in agricultural futures markets, forecasting, risk management, and volatility spillovers. Her recent research focuses on market microstructure in the age of electronic and high frequency trading.

### **BRUCE J. SHERRICK** (professor)

Dr. Sherrick helps make crop insurance programs work better for crop producers across the United States. Through Farmer Mac, he helps create and implement loan-funding programs that increase farmers' access to capital. As a member of the Farmland Technical Advisory Board, he coordinates the required calculations that support the use-value farmland assessment system in Illinois. He helps build information systems for agricultural asset markets that utilize big data and novel computational strategies to better understand farmland values.

### **PAUL STODDARD** (lecturer)

Mr. Stoddard challenges students to think about new things in different ways and old things in new ways in order to open up new areas of study and exploration in agricultural economics. Every day, he strives to reduce knowledge to "that simple compound of the obvious and the wonderful", as H. L. Mencken put it, to help students become passionate ambassadors for agriculture, for the business of food, and for the department and college.

### **ALEX WINTER-NELSON** (professor)

Dr. Winter-Nelson applies economics to better understand how we can alleviate poverty and hunger in some of the world's most disadvantaged places. He works in Africa and Asia to examine what technologies, policies, and programs are most effective in enabling poor people in rural areas to move themselves from poverty into economic security. He examines the constraints on the adoption of new agricultural technologies by small-scale farmers whose livelihoods depend on finding sustainable ways to intensify their production.

### **YILAN XU** (assistant professor)

Dr. Xu advances the knowledge of the financial decision-making process, the motivators and barriers to financial wellbeing, and the mechanisms of social mobility. She uses empirical economic methods to address policy-relevant issues related to financial behavior and consumer welfare. Her research provides policy implications on financial regulation, consumer financial protection, financial education, and neighborhood stability.