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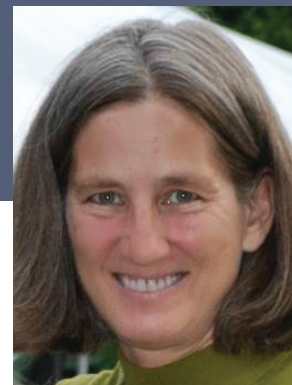
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**Applied Economics at the University of Minnesota**

**@ApEcMN**



## FROM THE DEPARTMENT HEAD



This issue, I'd like to highlight the work of AgEcon Search ([ageconsearch.umn.edu](http://ageconsearch.umn.edu)). AgEcon Search began in 1995 in the department in partnership with University of Minnesota Libraries and the American Agricultural Economics Association (AAEA). At the time, it was an experiment to see if it were possible to use the internet to archive, index and deliver on-demand, full-text working papers produced by university agricultural economics departments. The first papers were from agricultural economics departments at Minnesota and Wisconsin. These early papers pre-dated the World Wide Web and were mounted on a GOPHER server in WordPerfect format. The project has grown to include over 100,000 conference presentations, government documents, journal articles, and other resources from over 250 organizations around the world.

If you need to find research presented at professional meetings in our discipline, chances are you will find it in AgEcon Search. Also, if you have been to professional meetings in the last 20 years, you have probably had the opportunity to meet one of our librarians Louise Letnes, Julie Kelly, or Linda Eells. These women have actively recruited content from A (Acta Carolus Robertus, a Hungarian journal focused on tourism) to Z (Zagazig University Department of Agricultural Economics in Egypt). The reach of AgEcon Search is now truly global, and its coordinators continually seek mechanisms for exposing research output from around the world. Their newest initiative is a pilot project working with universities in Sub-Saharan Africa to host agricultural and applied economics master's theses.

AgEcon Search also reaches back in time, preserving knowledge generated as far back as 1914. The first record in AgEcon Search is the first Farm Management Service Note from the University of Minnesota. This

first note was the inaugural publication in a series designed to get information out to farmers: "Unless the farm demonstrators are kept in touch with the results of investigational work, the greatest good cannot come from the study of farm operations and conditions." One of the most recent papers uploaded to AgEcon Search carried a similar message. Instead of Minnesota in 1914, we have Malawi in 2016 (Katengeza, Holden and Lunduka, from the Fifth Conference of the African Association of Agricultural Economists in Addis Ababa): "Drought tolerant maize is a promising technology that has the capacity to help smallholder farmers adapt to drought risks... Good extension messages and promotion of drought tolerant maize varieties should be improved to allow farmers make informed decisions."

We are grateful for the sustained support from the AAEA and for the guidance of the AgEcon Search Advisory Board. In addition, the USDA-ERS has begun to support AgEcon Search in a cooperative agreement with the University of Minnesota. In launching their support, ERS noted that AgEcon Search would have to be created if it didn't already exist. The support of the agricultural and applied economics community will ensure that this unique resource continues to provide freely available, high quality resources to researchers around the world.

I hope that this newsletter finds you well, and that you enjoy this semi-annual glimpse into some of what's happening in the department. Please stay in touch.

*Frances Homans*

Department of Applied Economics



# Using Experimental Methods to Learn How Producers Respond to Uncertain Prices

How do producers adjust their production decisions in cases where the price at which they will be able to sell what they are producing is highly uncertain? This is one of the most fundamental questions of agricultural and applied economics. In the US, there exist several policy instruments whose explicit aim is to minimize the amount of price risk—the uncertainty around the price in the future—that farmers are exposed to, and futures markets tend to minimize the extent of price volatility. In developing countries, where futures markets are extremely uncommon and where insurance against price risk remains rare, farmers are not so lucky.

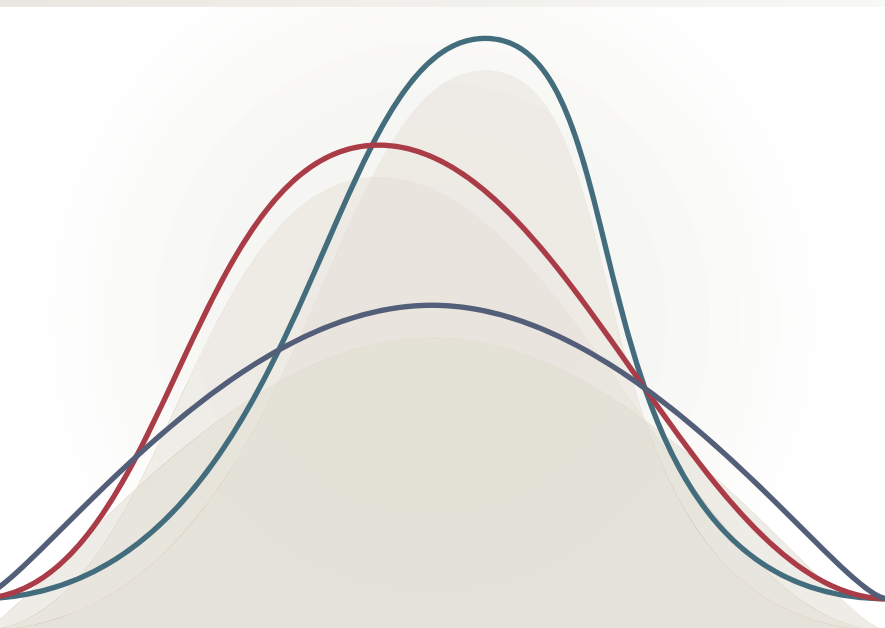
For smallholder farmers in developing countries, who tend to be risk-averse and whose scope for diversification is limited, economic theory is clear. Ever since the publication of Agnar Sandmo's seminal 1971 article in the

*American Economic Review*, economists have known that price risk in theory leads producers to produce less than in situations where there is little to no price uncertainty. When this underproduction is aggregated over thousands of farmers, there is less food to go around, and whatever food there is tends to be more expensive. In other words, price risk has the potential to worsen situations where individuals and households are food-insecure.

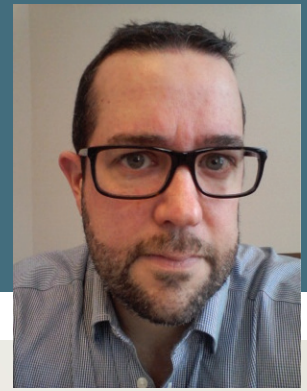
Since late 2014, PhD student Yu Na Lee and I have been doing experimental work in an attempt to test Sandmo's prediction. My interest in this question is twofold.

First and foremost, as a development economist, I am obviously interested in whether farmers hedge against price risk by cutting back on how much they produce relative to a situation of price certainty. Second, after doing quite a bit of work on the consequences of price volatility on welfare (Bellemare et al., 2013; Bellemare, 2015) in which I had to grapple with observational—that is, survey—data, I had been thinking about generating experimental evidence on this fundamental question for quite some time.

So, when Yu Na first expressed an interest in working with me on price volatility for her dissertation, I suggested we should “take Sandmo to the lab,” but I was not sure how realistic that suggestion was given that I had never done experimental work myself. Little did



BY MARC F. BELLEMARE



I know that a few weeks later, Yu Na would show up to my office with almost fully formed experimental protocols aimed at testing the theoretical prediction put forth by Sandmo.

With funds from a grant in aid provided by the University of Minnesota's Office of the Vice President for Research, we started by conducting our experiments at Cornell, where Yu Na and I both studied prior to coming to Minnesota, and where we knew there was a lab where we could conduct our experiments.

What's even better, however, is that since our use of experimental economics ensures that our results are internally valid—that is, it allows estimating causal relationships rather than just mere correlations—we decided to dream big, and to go for external validity as well. That is, we decided to conduct our experiments in different if comparable settings. To do so, after conducting the same experiments twice at Cornell, we decided to conduct them here at Ruttan Hall, after figuring out that our experiments were relatively lo-fi and that we did not need a fancy lab.

Then, because our Cornell and our Minnesota experiments involved US college students, we decided to take our experiments to the field, and conduct them with Peruvian farmers. In recent years, economists have conducted such lab-in-the-field experiments with increasing frequency. In order to exactly replicate our lab experiments at Cornell and Minnesota with

farmers in Peru, we worked with the Latin American office of Innovations for Poverty Action, a New Haven, Connecticut-based research organization that specializes in facilitating field experiments in developing countries. These lab-in-the-field experiments were funded by a research grant from the Center for International Food and Agricultural Policy, which is housed in the Department.

Ultimately, conducting our experiments in multiple locations allows us to make a more general statement about human behavior and, much to our surprise, what we find is not exactly consistent with theoretical predictions. Rather than reducing the amount of production in response to price risk, our average experimental subject tends to increase production when going from a situation where the price is certain to one where the price is uncertain. Yet conditional on there being some price uncertainty, an increase in the amount of uncertainty leads our average subject to reduce the amount of production at the margin.

To be sure, the lab—even the lab-in-the-field—is not the real world, as it tends to present subjects with highly streamlined setups in a clean setting where nothing else matters, and so our findings are far from the last word on the topic of how producers respond to price risk. But we are excited to have brought both internal and external validity to a topic that is of crucial importance for policy both here and in developing countries at a modest cost.



# KLAUS DEININGER

## DISTINGUISHED LEADERSHIP AWARD FOR INTERNATIONALS

This September, Dr. Klaus Deininger, Lead Economist at The World Bank, was named recipient of the University of Minnesota's Distinguished Leadership Award for Internationals. Dr. Deininger, the first German national to win the DLAI, received his Ph.D. from our department in 1993. Professor Burt Sundquist was his advisor.

The Distinguished Leadership Award for Internationals is a University-wide award for alumni, former students, and friends of the University who have distinguished themselves in their post-university work as leaders in their professional careers. Individuals will have attained

unusual distinction as professionals in their careers within institutions or in public service and have either demonstrated sustained outstanding achievement and leadership, or demonstrated promise of such on a local, national, or international level.

Dr. Deininger, a Fellow of the AAEA, has made outstanding contributions to the profession in the areas of research, capacity building, and data collection. His work on the impact of secure land rights on investment, the relationship between farm size and productivity and its determinants, and the operation of land and other factor markets in the process of structural change spans the globe. His ability to identify good practice (even if implemented only on a small scale), rigorously analyze the impact, and draw out implications for scaling up resulted in strong policy impacts through cases in Mexico, Ukraine, Ethiopia, Rwanda, China, and India.

Several of his papers are among the most cited in the agricultural economics profession, including his article entitled "*A new data set measuring income inequality*" (with Lyn Squire), his chapter '*Power, distortions, revolt, and reform in agricultural land relations*' (with H. Binswanger and G. Feder), and his book '*Rising global interest in farmland*' (with Derek Byerlee).

Dr. Deininger is a worthy recipient of this prestigious award and our department is honored to have been a part of his successful career.



Robert Johansson, M.S. and Ph.D. graduate of the Department of Applied Economics, was honored on October 20 with a presentation of the Department's Outstanding Alumni Award.

Rob received his PhD from our department in 2000, his dissertation on water quality trading written under the supervision of Jay Coggins. Since 2001, he has worked as an economist at USDA (both at the Economic Research Service and in the Office of the Chief Economist), in the Office of Information and Regulatory Affairs at the Office of Management and Budget, and at the Congressional Budget Office. In 2011, he was appointed senior economist for energy, environment, and agriculture on the President's Council of Economic Advisers where he also participated on the White House Rural Council and the President's Council on Jobs and Competitiveness. Since 2012, Dr. Johansson has been serving as Deputy Chief Economist at the USDA. His research has spanned a wide range of issues, including biofuels policy, water quality and quantity policies, regulatory economics, food security, and regional modeling of agricultural systems.

Rob now serves as Chief Economist at the Department of Agriculture (USDA). As Chief Economist, he is responsible for the Department's agricultural forecasts and projections and for advising the Secretary of Agriculture on economic implications of alternative programs, regulations, and legislative proposals. He is responsible for the Office of the Chief Economist, the World Agricultural Outlook Board, the Office of Risk Assessment and Cost-Benefit analysis, the Global Change Program Office, the Office of Environmental Markets, and the Office of Energy Policy and New Uses.

Rob was joined by his family, including wife Siobhan, to celebrate his award. In accepting his award, Rob suggested that others in his cohort were similarly deserving of recognition for their contributions as economists. Rob went on to discuss the outlook for agriculture, showing the breadth of his portfolio and demonstrating the competence and objectivity that has made him a trusted leader at USDA.

## ROBERT JOHANSSON

### OUTSTANDING ALUMNI AWARD





# TREY O'BRYAN

## UNDERGRAD STUDENT SPOTLIGHT



Growing up in the small town of Bagley, MN and being the first in his family to graduate from college, Trey O'Bryan was hesitant about attending a school as staggeringly large as the University of Minnesota.

"I thought I wanted to get *away* from the farm," he explained. "But after a semester in a major I didn't like, I migrated to CFANS and never looked back."

Trey, a senior at the University of Minnesota, is studying Agricultural and Food Business Management here in the Department of Applied Economics. Raised in a town surrounded by agriculture, Trey appreciates the varied perspectives of the business world and production agriculture that AFBM offers, as well as the opportunity to explore the evolving world of agribusiness.

Trey hopes to use his degree, combined with his multiple internships and personal experiences, to enter a career in Commodities Procurement and Merchandising, eventually working with agriculture on a global scale through international rural development or trade policy.

"I have wanted to do work with agriculture on a global scale since my sophomore year when I went abroad to South Africa to learn about economic, political, and agrarian reform," he clarified.

Despite—or maybe because of—his small town upbringing, Trey has managed to involve himself in a variety of clubs, activities and organizations at the University, including being one of the department's 2016-2017 student activity coordinators.

"As cliché as it sounds, I love how easy it is to find a community and a group of people to call friends here. But the faculty and my peers have all made this experience great and I'm proud of the relationships I have made."

As Trey wraps up his final semester at the University this spring, he hopes to leave a legacy. Raising funds and awareness for Pediatric Cancer at the Minnesota Masonic Children's Hospital, Trey and other students have not only increased donations from 2015 to 2016, but developed relationships with students and families touched by pediatric cancer. Trey has brought his brand of fun, community, and meaning to the University, and we are proud to call him one of ours.

Vaneesha (or Vanee, as she prefers to be called) Dusoruth began her academic journey in at Minnesota State University at Moorhead studying mathematics and then earned a master's in Public Policy from the Humphrey School. What led her to pursue Applied Economics was a desire to make meaningful academic contributions while, at the same time, providing helpful insights for policymakers.

"I felt I needed more advanced training in economic theory, applied economics, analytic research and [to be] more rigorous at quantitative empirical work," Vanee explained. "Since the beginning of my career, my goal has been to be a better researcher and a well-rounded academic who can contribute to society around her. In that end, I'm driven to conduct research that makes sound contributions to the literature and is hopefully impactful policy wise."

In her work with the Institute on the Environment and with the Healthy Food Healthy Lives grant she received with Dr. Hikaru Peterson, Vanee is accomplishing just that. Exploring issues and topics related to food waste and sustainability, she hopes to address the fact that 40% of the food we produce goes uneaten, wasting billions of dollars and vast amounts of water and energy.

"In the long run, I hope to do my part in addressing these issues. For now, I am working with Dr. Peterson with the ambitious goal of estimating food waste in the Twin Cities and Minnesota."

However, Vanee appreciates the fact that everyone needs a break and an outlet for release, which is why, in addition to experiencing the vibrant nightlife and culinary delights of the Twin Cities, this past year she purchased herself an old fashioned synthesizer and is teaching herself to play.

Vaneesha credits the University and its many opportunities for students to be supported both financially and academically as her main component for success. We look forward to watching Vanee grow as a researcher and scholar within the department, and can't wait to see where her future will take her.

# VANEESHA DUSORUTH

## GRADUATE STUDENT SPOTLIGHT





# JENNA MEAD

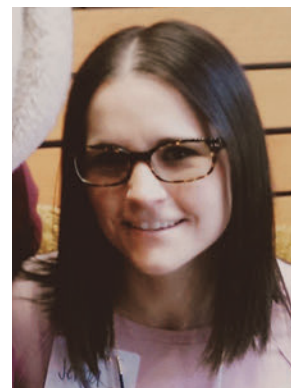
## NEW STAFF MEMBER

We have added a friendly face to our team! Jenna Mead, our new Graduate Program Coordinator, began in July of this year.

Jenna assists the Director of Graduate Studies with all program matters, including helping our students with anything from registration to fellowship applications to job market web pages.

Jenna has a B.A. from Augsburg College and an M.S. from UC-Riverside, both in Sociology, and previously worked as an academic advisor and support for a large graduate program at Walden University. When she isn't helping our students navigate from application to degree completion, she enjoys spending time with her dog, visiting her cabin, fishing, and trying out the many local eateries Minneapolis and St. Paul have to offer.

Jenna is excited to join the Director of Graduate Studies, ApEc faculty, and graduate students from application degree completion and beyond. Welcome to the team, Jenna!



# FAREWELL TO EMERITUS FACULTY

## JERRY FRUIN



Jerry Fruin, long-time faculty member in our department and a retired captain in the US Navy, died on September 19, 2016, from complications due to a stroke. Jerry was born and raised in Illinois and went to the University of Illinois for his B.S. in agricultural science and M.S. in agricultural economics. After service in the US Navy, he earned a PhD in agricultural economics at UC Berkeley.

During his career in Minnesota, Jerry became well-known for his focus on transportation economics and was often consulted on issues in the public interest, particularly in the area of transportation. He was a frequent collaborator on projects with colleagues in the department.

Dr. Richard A. Levins, Professor Emeritus in our department, remembers the time in the mid-1970's that he and Jerry worked together on energy-related projects. "Jerry was, above all, a practical economist with deep connections to the transportation industry and to farming. Working with him then, and in many projects later when I came back to Minnesota a decade later, was always rewarding. No one will ever call him a theoretical economist; if they did, Jerry would probably be horrified. But when you needed a help with a practical project concerning agriculture, transportation, or the intersection of the two, there was no more valuable colleague than Dr. Fruin. I will miss his guidance."

In honor of his military service, Jerry was interred at Fort Snelling National Cemetery.

## STUDENTS COMPETE IN CME TRADING CHALLENGE

In the spring of 2016, five Applied Economics students competed in the Chicago Mercantile Exchange (CME) trading challenge in conjunction with their coursework in Professor Bozic's Futures and Options class, APEC 4481.

Through this competition, which included over 400 teams from universities across the globe, the five students got a taste of life as an active trader. The challenge afforded students the opportunity to trade futures contracts with simulated money, but live pricing, courtesy of a partnership between CME and the CQG trading platform. Valid contracts for the competition represented a variety of asset classes including futures for agricultural commodities, equity indexes, interest rates, and foreign exchange futures.

The Minnesota Applied Economics team finished in the top ten percent of the competition, earning them



an invitation to attend the *CME Group Day of Market Education Conference in Chicago*. At the conference, students were exposed to lectures from financial market experts and had an opportunity to network with peers from around the world. The competition and conference sharpened the team's knowledge of financial markets and gave them valuable practical experience related to their studies in Applied Economics.

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Applied Economics students Sam Erwin, Nick Dorsey, Josh Belgarde, and Jonas Pizzatto (right side of picture from left to right) soak up some knowledge in Chicago (team member Craig Shaver not pictured).

## APPLIED ECONOMICS AT THE GREAT MINNESOTA GET-TOGETHER

For the first time this past summer, Applied Economics and Agricultural Education hosted a booth at the Minnesota State Fair. Faculty, staff and students all took shifts at the booth which included veggie races, a photo booth with dress-up props and a Plinko board featuring questions about our great state of Minnesota.

We had thousands of visitors come through and were happy to engage with the public at the Fair. We look forward to having a booth again next year! Come visit us.

Just one word of advice: if you choose to participate in the veggie races: if you 'carrot' all about winning, don't choose a potato!



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## FELLOWSHIPS AND SCHOLARSHIPS

### **WILLIS PETERSON UNDERGRADUATE SCHOLARSHIP**

**Paige Anderson**  
Applied Economics

**Matthew Ditsch**  
Agricultural Communications/  
Marketing *and* Agricultural and  
Food Business Management

**David Rekstad**  
Applied Economics

### **ROUTHE-CHRISTIANSEN SCHOLARSHIP**

**Skarlett Salazar**  
Applied Economics

### **YOST FAMILY SCHOLARSHIP**

**Katherine Wilts**  
Agricultural and Food Business  
Management

### **APPLIED ECONOMICS CENTENNIAL UNDERGRADUATE SCHOLARSHIP**

**Bhavesh Viswanath**  
Applied Economics

### **COBANK SCHOLARSHIP FUND**

**Addison Beyers**  
Applied Economics

**Jeremy Schwebs**  
Agricultural and Food Business  
Management

**COCHRANE FELLOWSHIP**  
**Sebastian Anti**

**LITTERMAN FELLOWSHIP**  
**Sebastian Anti**

**PETERSON FELLOWSHIP**  
**Breanna Arndt**

**KINSEY FELLOWSHIP**  
**Gianna Short**