

MINDY L. MALLORY

Associate Professor – Department of Agricultural Economics

GENERAL INFORMATION

A. Academic Degrees

<u>Degree</u>	<u>Year</u>	<u>Major</u>	<u>Institution</u>
B.S.E.	2003	Math Education	Emporia State University
M.S.	2005	Mathematics	Emporia State University
Ph.D.	2009	Economics	Iowa State University

B. Professional Experience

- 2019-Present Clearing Corporation Foundation Chair in Food and Agricultural Marketing, Purdue University, West Lafayette, IN.
- 2019-Present Associate Professor, Department of Agricultural Economics, Purdue University, West Lafayette, IN.
- 2016-2019 Associate Professor, Department of Agricultural and Consumer Economics, University of Illinois, Urbana, IL.
- 2009-2016 Assistant Professor, Department of Agricultural and Consumer Economics, University of Illinois, Urbana, IL.

C. Awards and Honors

1. University of Illinois, Department of Agricultural Economics Graduate Student Association, Outstanding Faculty of the Year, 2019.
2. Earl and Mildred Hughes Teaching Enhancement Award. University of Illinois. 2019.

D. Membership in Academic, Professional, and Scholarly Societies

- 2007-Present American Agricultural Economics Association
- 2010-2012 Western Agricultural Economics Association
- 2015-2019 American Finance Association

SECTION A. DISCOVERY

Published Work

A. Articles in Refereed Journals (*Indicates graduate student author, + indicates Mallory's graduate student advisee)

1. Hu*, Z, Mallory, M., T. Serra, and Garcia, P. 2020. "Price Discovery and Information Flows along the Forward Curve in Contango and Backwardation." *Agricultural Economics*. <https://doi.org/10.1111/agec.12594> .

2. Ando, A.W., J. Fraterrigo, G. Guntenspergen, A. Howlader*, M. Mallory, J. Olker, and S. Stickley*. 2018. "When Portfolio Theory Can Help Environmental Investment Planning to Reduce Climate Risk to Future Environmental Outcomes – and When it Cannot" *Conservation Letters*. 11(6). doi.org/10.1111/conl.12596.
3. Shang+, Q., Mallory, M., and Garcia, P. 2018. "The Components of the Bid-Ask Spread: Evidence from the Corn Futures Market." *Agricultural Economics: An International Journal*. 49, 381-393.
4. Ando, A., A. Howlader*, and M.L. Mallory. 2018. "Diversifying to Reduce Conservation Outcome Uncertainty in Multiple Environmental Objectives." *Agricultural and Resource Economics Review*. 47(2), 220-238.
5. Trujillo-Barrera*, A., P. Garcia, and M.L. Mallory. 2017. "Short-Term Price Density Forecasts in the Lean Hog Futures Market." *European Review of Agricultural Economics*, 45(1), 121-142.
6. Yu+, J., and M.L. Mallory. 2017. "Carbon Price Interaction between Allocated Parties and Generated Offsets." *Operational Research*, DOI: 10.1007/s12351-017-0345-2.
7. Etienne*, X.L., M.L. Mallory, and S.H. Irwin. 2017. "Estimating the Cost of Pre-Harvest Forward Contracting Corn and Soybeans in Illinois Before and After 2007." *Agribusiness: an International Journal*, 33(3):358-377.
8. Shah*, P., M. Mallory, A. Ando, and G. Guntenspergen. 2016. "Fine-Resolution Conservation Planning with Limited Climate-Change Information." *Conservation Biology*, 31(2):278-289.
9. Trujillo-Barrera*, A., P. Garcia, M. Mallory. 2016. "Price Density Forecasts in the U.S. Hog Market: Composite Procedures." *American Journal of Agricultural Economics*, 98(5):1529-1544.
10. Yu+, J. and M. Mallory. 2015. "An Optimal Hybrid Emission Control System in a Multiple Compliance Period Compliance Period Model." *Resource and Energy Economics*, 39:16-28.
11. Yu+, J. and M. Mallory. 2014. "Exchange Rate Effect on Carbon Credit Price via Energy Markets." *Journal of International Money and Finance*, 47:145-161.
12. Mallory, M. and A. Ando. 2014. "Implementing Efficient Conservation Portfolio Design." *Resource and Energy Economics*, 38:1-18.
13. Mallory, M., W. Zhao+, and S. Irwin. 2014. "The Cost of Post-Harvest Forward Contracting in Corn and Soybeans." *Agribusiness: An International Journal*, 31(1):47-62.

14. Sherrick, B., M. Mallory, and T. Hopper. 2013. "What's the Ticker Symbol for Farmland?" *Agricultural Finance Review*, 73(1):6-31.
15. Mallory, M. and K. Baylis. 2013. "The Food Corporation of India and the Public Distribution System: Impacts on Market Integration in Wheat, Rice, and Pearl Millet." *Journal of Agribusiness*, 30(2):225-250.
16. Zhang+, T., M. Mallory, and P. Barry. 2012. "Determinants of the Patronage Refund Decision of Farm Credit System Associations." *Agricultural Finance Review*, 73(1):102-118.
17. Ando, A. and M. Mallory. 2012. "Reply to Dunkel and Weber: Probability Distributions and Shortfall Risk Measures in Conservation Portfolio Analysis." *Proceedings of the National Academy of Sciences*, 109(35):E2305. 3 Updated October, 2018
18. Mallory, M. and S. Lence. 2012. "Testing for Cointegration in the Presence of Moving Average Errors." *The Journal of Time Series Econometrics*, 4(2):1941-1928.
19. Trujillo*, A., M. Mallory, and P. Garcia. 2012. "Volatility Spillovers in US Crude Oil, Ethanol and Corn Futures Markets." *Journal of Agricultural and Resource Economics*, 37(2):1-16.
20. Mallory, M., S. Irwin, and D. Hayes. 2012. "How Market Efficiency and the Theory of Storage Link Corn and Ethanol Markets." *Energy Economics*, 34(6):2157-2166.
21. Ando, A. and M. Mallory. 2012. "Optimal Portfolio Design to Reduce Climate-Related Conservation Uncertainty in the Prairie Pothole Region." *Proceedings of the National Academy of Sciences*, 109(17):6484-6489.
22. Mallory, M., D. Hayes, and B. Babcock. 2011. "Crop-based Biofuel Production with Acreage Competition and Uncertainty." *Land Economics*, 87(4):610-627.
23. Mallory, M. 2011. "Coordination Problems, Strategic Complementarities, and Multiple Equilibria in an Alternative Fuel Market." *Environmental Economics*, 2(1):38-49.
24. Irwin, S., D. Good, and M. Mallory. 2011. "Could a Variable Ethanol Blenders' Tax Credit Work?" *Biofuels*, 2(3):277-284.
25. Mallory, M. 2011. "Alternative Biofuel Policies: An Economic Comparison." *Biofuels*, 2(3):267-276.
26. Du, X., D. Hayes, and M. Mallory. 2009. "A Welfare Analysis of the U.S. Ethanol Subsidy." *Review of Agricultural Economics*, 31(4):669-676.

B. Invited Review

C. Invited and Selected Conference Papers (* Indicates the presenter)

1. Mallory, M.*, D. Hayes, and B. Babcock. “Crop Based Biofuel Production under Acreage Constraints and Uncertainty.” AAEA annual meeting, Orlando, FL, July 2008.
2. Mallory, M.*, and S. Lence. “Much Ado about the Wrong Thing? Cointegration Analysis of Commodity Prices.” AAEA Annual Meeting, Denver, CO, July 2010.
3. Mallory, M.*, D. Hayes, and S. Irwin. “How Market Efficiency and the Theory of Storage Link Corn and Ethanol Markets.” Biobased Industry Center Bioenergy Camp. Perry, IA. May 20, 2010.
4. Mallory, M.* and S. Irwin. 2010. “The Forward Contract’s Income Shifting Option and on the Forward Basis.” Proceedings of the NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
5. Mallory, M.* “Energy Policy: Implications for Farmer Cash Flow and Land Values.” NC-1177 Annual Meeting, Denver, CO. October 2011.
6. Mallory, M.*, X. Etienne, and S. Irwin. “Estimating the Cost of Forward Contracting Corn, Soybeans, and Wheat.” WAEA Annual Meeting, Banff, Alberta, Canada, June 2011.
7. Trujillo, A.*, M. Mallory, and P. Garcia. 2011. “Volatility Spillovers in US Crude Oil, Ethanol and Corn Futures Markets.” Proceedings of the NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
8. Mallory M.*, H. Zahran, and S. Irwin. “Profit and Prices in the Biodiesel Industry.” NC-1177 Annual Meeting, Washington, D.C. October 26, 2012.
9. Ando, A., and M. Mallory*. “The Perils of Shortcuts in Efficient Conservation Portfolio Design.” AAEA Annual Meeting, Seattle, WA, August 13, 2012.
10. Mallory M.*, and K. Baylis. “The Food Corporation of India and the Public Distribution System: Impacts on Market Integration in Wheat, Rice, and Pearl Millet.” NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO. April 2012.
11. Trujillo, A.*, P. Garcia, and M. Mallory. 2012. “Density Forecasts of Lean Hog Prices.” Proceedings of the NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.

12. Trujillo, A.*, P. Garcia, and M. Mallory. 2013. "Price Density Forecasts in the U.S. Hog Market: Composite Procedures." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
13. Mallory, M.*, P. Garcia, and T. Serra. 2015. "Nearby and Deferred Quotes: What They Tell Us about Linkages and Adjustments to Information." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
14. Shang, Q.*, M. Mallory, and P. Garcia. 2016. "The Components of the Bid-Ask-Spread: Evidence from the Corn Futures Market." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
15. Shang, Q.*, M. Mallory, and P. Garcia. 2016. "The Electronic Live Cattle Futures Market Bid Ask Spread Behaviors and Components" Agricultural and Applied Economics Association. 2016 Annual Meeting, July 31-August 2, Boston, Massachusetts.
16. Hu, Z.*, M. Mallory, T. Serra, and P. Garcia. 2017. "Measuring Price Discovery between Nearby and Deferred Contracts in Storable and Non-Storable Commodity Futures Markets." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. St. Louis, MO.
17. Shang, Q.*, T. Serra, P. Garcia, and M. Mallory. 2018. "The Term Structure of Liquidity Provision in Agricultural Futures Markets." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.
18. Janzen, J. and M. Mallory*. 2018. "Going to Kansas City? Examining Working's Wheat Price Discovery Puzzle." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.
19. Shang, Q.*, T. Serra, P. Garcia, and M. Mallory. 2019. "Lifting the Veil on the Iceberg: An Analysis of Hidden Liquidity in the U.S. Agricultural Futures Markets." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.
20. Han, X., M. Mallory*, and M. Robe. 2019. "Informed Trading and the O/F Ratio." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.
21. Grimaldi, F.* and M. Mallory. 2019. "Where to Hedge? Optimal Hedge in Cointegrated Markets: The Case of Brazil and the U.S." NCCC-134 Conference on Applied

Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.

22. Naughton, C.* and M. Mallory. 2019. "Commodity Speculation and Overshooting Theory." NCCC-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management. Minneapolis, MN.

D. Selected Conference Posters (* Indicates the presenter)

1. Miller, B.*, M. Mallory, K. Baylis, and C. Hart. "Spatial Basis Effects of Corn-Belt Ethanol Plants." AAEA Annual Meeting, Pittsburgh, PA, July 2011.
2. Yu, J.*, and M. Mallory. "An Optimal Safety Valve for Emission Trading in a Multi-Compliance Period Model." Heartland Environmental and Resource Economics Workshop. Urbana, IL. October 2011.

3. Unpublished Work

A. Submitted Work

1. Shang, Q.*, T. Serra, P. Garcia, and M. Mallory. "Lifting the Veil on the Iceberg: An Analysis of Hidden Liquidity in the U.S. Agricultural Futures Markets." Submitted April 2020.
2. Gimaldi, F. and M. Mallory. "The Impact of Brazil on Global Grain Dynamics: A Study on Cross-Market Volatility Spillovers." Submitted April 2020.

B. Staff Papers and Case Studies

C. Dissertation

1. Mallory, M. "Three Essays Concerning Agriculture and Energy." Ph.D. Dissertation, Iowa State University, August 2009.

D. Book Chapters (only chapter authors listed)

4. Invited Seminars Presented at Conferences, Annual Meetings of Professional Associations, and Other Academic Audiences (*denotes presenter)

1. "Biting off More than You Can Chew: Market Making in a Pro-Rata Futures Market." Invited Seminar, Purdue Agricultural Economics Department. West Lafayette, IN, April, 26, 2019.

2. "Where to Hedge? Understanding the Dynamics of Corn Hedging in Brazil and the U.S." Seminar, Morrison School of Agribusiness Seminar Series. Tempe, AZ, February 8, 2019.
3. "Measuring Price Discovery between Nearby and Deferred Contracts in Storable and Non-Storable Commodity Futures Markets." Seminar, Commodity Futures Trading Commission, Washington DC, August 23, 2017.
4. "Measuring Price Discovery between Nearby and Deferred Contracts in Storable and Non-Storable Commodity Futures Markets." Seminar, USDA ERS, Washington DC, August 24, 2017.
5. "Measuring Price Discovery between Nearby and Deferred Contracts in Storable and Non-Storable Commodity Futures Markets." Seminar, University of Wisconsin, October, 2017.
6. "The Components of the Bid-ask Spread: Evidence from the Corn Futures Market." Seminar, Department of Agricultural Economics and Economics, Montana State University, September 23, 2016.
7. "Exchange Rate Effect on Carbon Credit Price via Energy Markets." IPAM Workshop III: Commodity Markets and Their Financialization, University of California, Los Angeles, May 6, 2015.
8. "How Market Efficiency and the Theory of Storage Link Corn and Ethanol Markets." Invited presentation at the Agricultural Economics Department, Oklahoma State University. April 6, 2012.
9. "Optimal Portfolio Design to Reduce Climate-Related Conservation Uncertainty in the Prairie Pothole Region." Invited presentation at the Center for Earth and Environmental Science, Indiana University-Purdue University Indianapolis. April 18, 2012.
10. "How Market Efficiency and the Theory of Storage Link Corn and Ethanol Markets." Invited presentation at the Department of Economics, Illinois State University, October 10, 2012.
11. "How Market Efficiency and the Theory of Storage Link Corn and Ethanol Markets." Invited presentation at the Department of Agricultural Economics, University of Kentucky, October 12, 2012.

5. Involvement in Graduate Program

Graduate students have been a crucial component of Dr. Mallory's research program. Dr. Mallory has advised 6 Ph.D. students, 5 master's students, as well as serving on 11 Ph.D. committee's and 6 master's committees.

All activities with graduate students indicated in this section are from the University of Illinois. Students indicated below with a future expected graduation date are Illinois students I am still

advising due to relationships that started before I moved to Purdue. I am currently recruiting graduate students at both the M.S. and Ph.D. level at Purdue.

	M.S.		Ph.D.	
	Completed	In Progress	Completed	In Progress
Major Professor	3	2	4	2
Committee Member	6	0	9	2

Graduate Students

1. Major Professor/Committee Chair

Ph.D. Degree

1. Tianwei Zhang. Graduated 2011. "Three Essays on Patronage Refunds and the Capital Structure of Farm Credit System Associations."
2. Jongmin Yu. Graduated 2013. "Three Essays on Emission Credit Markets."
3. Christina Jolejole. (co-advisor) Graduated 2014. "Three Essays on Food Security."
4. Beth Miller (co-advisor), Graduated 2016. "Market Entry and Exit in the Spatial Ethanol Industry."
5. Xue Han. Expected Graduation 2020. Topic: Bubbles and Informed Trading in Agricultural Futures Markets.
6. Wang Heng. Expected Graduation 2020. Topic: Risk Premium in CBOE VIX Futures.

Master's Degree

1. Quanbiao Shang. Graduated 2016. "The Components of the Bid-Ask Spread: Evidence from the Corn Futures Market."
2. Menas Falakos. 2016. "Can Volatility Based Technical Signals Capture Consistent Abnormal Equity Index Returns?"
3. Felipe Grimaldi. Graduated 2019. "The Impact of Brazil on Global Grain Dynamics: A Study on Cross-Market Volatility Spillovers."
4. Conner Naughton. Expected Graduation 2020. "Commodity Speculation and Overshooting Theory."
5. Matt Nolan. Expected Graduation 2020. "Spatial Analysis of Corn Basis."

2. Committee Member

Ph.D. Degree

1. Andres Trujillo. 2013.
2. Payal Shaw. 2013.
3. Xiaoli Liao. 2013.
4. Xiaoyang Wang. 2013.
5. Tisorn Songsermsawas. 2015.
6. Kishore Joseph. 2015.
7. Xin Li. 2016.
8. Aparna Howlader. 2019.

9. Aditya Shrivinas. 2019.
10. Zhepeng Hu. Expected 2020.
11. Quanbiao Shang. Expected 2021.

Master's Degree

1. Luiz Figer. 2011.
2. Hala Zahran. 2013.
3. Anamaria Guadencio. 2013.
4. Andres Bautista. 2015.
5. Cody Brandt. 2016.
6. Rachael Richardson. 2019.

6. Research Grants and Outside Support

External funding indicated by *; # indicates internal funding. The portion to Mallory is indicated where funding was shared.

Summary Table of Funding Support		
	Allocated to Mallory	Total
External Sources	\$155,096	\$496,731
Internal Sources	\$107,925	\$289,000
Total	\$263,021	\$785,731

A. Current Grants

B. Pending Grants

C. Past Extramural Funded Grant Activities

1. Food Price Forecasting Issues, Techniques and Opportunities Workshop

Agency/Title:	Economic Research Service of the USDA
Duration of Funding:	2015
Total Amount of Award:	\$35,000
Role:	PI
Total amount to Mallory	\$35,000

2. Spatial Conservation and Investment Portfolios to Manage Climate-Related Risk

Agency/Title:	National Science Foundation
Duration of Funding:	2013-2016

Total Amount of Award:	\$402,539
Role:	Co-PI
Total amount to Mallory	\$78,000

3. Economic Tools for Conservation Decision Making and Land Management under Climate Change

Agency/Title:	United States Geological Survey
Duration of Funding:	2012
Total Amount of Award:	\$34,192
Role:	Co-PI
Total amount to Mallory	\$17,096

4. A Comparison of the Economics of Some Alternative Biofuel Policies

Agency/Title:	Illinois Corn Marketing Board
Duration of Funding:	2010
Total Amount of Award:	\$25,000
Role:	PI
Total amount to Mallory	\$25,000

D. Past Intramural Grant Activities

1. State of Agricultural Policy in India and Brazil

Agency/Title:	ADM Institute for the Prevention of Postharvest Loss, University of Illinois
Duration of Funding:	2011
Total Amount of Award:	\$44,000
Role:	PI
Total amount to Mallory	\$44,000

2. Developing a Collaboration with Faculty and Students at the Indian Statistical Institute, Delhi on the Marketing of Grains and Oilseeds in India

Agency/Title:	Office of International Programs, College of ACES International Seed Grants Program, University of Illinois
Duration of Funding:	2011
Total Amount of Award:	\$2,500
Role:	PI
Total amount to Mallory	\$2,500

3.

Agency/Title:	College of ACES Karl E. Gardner Teaching Enhancement Grant, University of Illinois
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Duration of Funding:	2011
Total Amount of Award:	\$2,000
Role:	PI
Total amount to Mallory	\$2,000

4. Reducing Postharvest Losses of Grain and Oilseed Crops in India

Agency/Title:	William and Flora Hewlett International Research Travel Grant, University of Illinois
Duration of Funding:	2012
Total Amount of Award:	\$2,500
Role:	PI
Total amount to Mallory	\$2,500

5. Supply Chain Policy and Strategy Analysis for Prevention of Postharvest Loss

Agency/Title:	ADM Institute for the Prevention of Postharvest Loss, University of Illinois
Duration of Funding:	2012-2014
Total Amount of Award:	\$238,000
Role:	Co-PI
Total amount to Mallory	\$56,925

7. Evidence of National and International Recognition

1. AAEA reviewer of selected papers. 2011.
2. AAEA selected papers topic leader. 2012, 2014-2015.
3. AAEA Dissertation Award Reviewer. 2018-2019.
4. Agricultural and Rural Finance Markets in Transition, NC1177 Multi-state Research Project. Secretary. 2011.
5. Agricultural Finance and Management section of AAEA. Chair-elect. 2011.
6. Agricultural and Rural Finance Markets in Transition, NC1177 Multi-state Research Project. President. 2012.
7. Agricultural Finance and Management section of AAEA. Chair. 2012.
8. Agricultural and Rural Finance Markets in Transition, NC1177 Multi-state Research Project. Past President. 2013.
9. Agricultural Finance and Management section of AAEA. Chair. 2013.
10. Econometrics section of AAEA, Chair-Elect. 2019.
11. Econometrics section of AAEA, Chair. 2020.
12. Applied Commodity Price Analysis, Forecasting, and Market Risk Management, NCCC 134 Multi-state Research Coordinating Committee. Co-Chair. 2020-2025.
13. Invited to Brazilian Federal Agency Support for Graduate Education Visiting Professor Program. 2020.
14. AAEA Quality of Research Discovery Award Selection Committee. 2020.
15. Co-Editor. Applied Economics Perspectives and Policy. 2020-present.

Dr. Mallory has served as reviewer for various academic journals including, *American Journal of Agricultural Economics*, *Agricultural Economics*, *Agricultural and Resource Economics Review*, *Agribusiness*, *Applied Financial Economics*, *Agricultural Finance Review*, *Biomass and Bioenergy*, *Canadian Journal of Agricultural Economics*, *Journal of Agriculture and Resource Economics*, *Energy Economics*, *Energy Policy*, *Ecological Economics*, *Journal of Commodity Markets*, *Journal of Agricultural and Applied Economics*, *Environmental and Resource Economics*, *Journal of Environmental Economics*, *Journal of Policy Analysis and Management*, *Quarterly Journal of Economics*.

Dr. Mallory has also served as external reviewer for governmental agency reports including the Economics Research Service of the USDA, and the USGS.

8. International Activities

1. A delegation of seven traveled to several locations in India with the University of Illinois College of ACES Global Academy, January 2011. We met with representatives met with several government, non-profit, and academic groups to scout out international collaboration and research opportunities.
2. Traveled to the Indian Statistical Institute in Delhi to develop collaborations with faculty there on commodity markets in rural India. The trip was funded by the University of Illinois College of ACES International Programs Grant. August 2011.
3. Traveled to the Western Agricultural Economics Association annual meeting in Banff, Alberta Canada to present a research paper at the conference. June 2011.
4. Received a grant from the ADM Institute for the Prevention of Post-Harvest Loss at the University of Illinois to study how smallholder farmers in India might capture more value post-harvest, through storage and access to credit. 2012-2014.
5. Developed and delivered an instructional module for the Integrated Food Policy Research Program Short Course designed for representatives from the Bangladesh Ministry of Food. The program was developed for the World Bank and administered by the ADM Institute for the Prevention of Post-Harvest Loss at the University of Illinois. My short course was an introduction to forward contracts and exchange traded futures contracts and how these contracts facilitate the ability to transfer price risk away from farmers. It also discussed inefficiencies and consequences of using government stockholding as an instrument for farmer price support. August 31, 2018.

9. Interdisciplinary Activities

1. Conservation portfolio research. Our research team includes two economists and two ecologists. We developed a model to diversify spatial targets for conservation sights in the face of the threat of climate change. If climate change impacts the spatial patterns of habitat and other ecosystem services, current conservation efforts may greatly be reduced in their efficacy. Using climate models of possible future habitat scenarios and portfolio theory from finance allows one to develop diversified spatial targets for conservation. Interdisciplinary

teammates: Glenn Gutenspergen ecologist with the United States Geological Survey; Jenn Fratterigo Ecologist in the Department of Natural Resources and Environmental Sciences, University of Illinois; Amy Ando economist in the Department of Agricultural and Consumer Economics. This multidisciplinary research project has generated publications in top general interest journals including the *Proceedings of the National Academy of Sciences* and in funding from the National Science Foundation.

SECTION B. LEARNING

1. Courses Taught at Purdue University

Semester	Course	Credit Hours	Class Size	Course Summary	Instructor Summary
Spring 2020	AGEC 421	3	45	NA*	NA*
Spring 2020	AGEC 605	3	10	NA*	NA*

* Due to the COVID-19 pandemic in 2020, and the mid-semester shift to online teaching, course evaluations were not conducted.

2. Courses Taught at other Universities

University of Illinois

ACE 428, Commodity Futures and Options Markets This course gives a detailed introduction into the mechanics of commodity futures and options contracts. Students learn exactly what futures and options contracts are, different order types and the risk profiles associated with them, and how various risk management and speculative strategies can be implemented. The course has evolved as I have experimented with different teaching styles to teach advanced material to such a large class. This junior-senior level has enrollment from eighty to one hundred students. When I began teaching the class, I delivered lectures via power point, and I did not have vary many exercises or activities developed to illustrate the concepts with concrete examples. Over time I developed a series of activities that have improved understanding. Also, in 2011 I experimented with a ‘flipped classroom’, where I asked students to read material and watch short videos before coming to class; then in class we did hands on exercises to illustrate the concepts. Between increasing the number of hands-on activities and employing the ‘flipped’ classroom, my evaluations increased consistently. In a smaller class setting, I think old-fashioned chalkboard style lectures combined with the activities I have developed would really work well.

ACE 520, Food Commodity Markets This course covers the academic literature in food commodity markets. It is a Ph.D. field course, with small enrollment. I taught the course in a seminar style, where I would assign journal articles to read and then we would discuss the methods and results together as a class. This allowed me to get to know several Ph.D. students this way, and I ended up advising four Ph.D. students as a result of these relationships.

ACE 500, Microeconomic Theory This course is the core microeconomics class in our Master's program. We typically have 10 to 20 students enrolled. I teach this course in a traditional lecture format, and I assign exercises from the textbook to the students for practice in learning the methods and techniques. I give the students solutions for all the exercises, and I do not collect or grade them. I tell the students that since they are in graduate school now, they must figure out how to work hard independently, and learn how to gauge their own understanding. Students often think they have worked hard in preparation for the first exam and then experience the worst grade of their life. This causes the students a lot of temporary anxiety, but it makes them realize how seriously they have to take graduate school, and how to really come to terms with their own understanding. I want them to learn to keep pushing themselves until they have truly mastered the material.

ACE 427, Commodity Price Analysis This course is complimentary to the ACE 428 course in Illinois' program. While 428 teaches the mechanics of futures and options markets, 427 focuses on teaching students what affects the movement of commodity prices. This is effectively the same course as Purdue's AGECE 421 that I am teaching now.

ACE 264, Applied Statistical Methods and Data Analytics II This course gives undergraduate students exposure to multiple regression models using OLS, common issues such as heteroscedasticity, and endogeneity, and common techniques to mitigate these issues. The class has a lab session every week where students learn how to apply the statistical techniques they are learning in the R programming language.

Iowa State University

ECON 101, Principles of Microeconomics

ECON 207, Mathematics for Economists

	Semester	Course	Rate the instructor's overall teaching effectiveness	Rate the overall quality of this course
Iowa State University	Summer 2006	ECON 101	4.26	4.11
	Fall 2006	ECON 207	5.00	4.55
University of Illinois	Fall 2009	ACE 428	2.8	3.2
	Fall 2010	ACE 428	3.0	3.5
	Fall 2010	ACE 520	4.6	4.6
	Fall 2011	ACE 428	3.8	4.0
	Fall 2011	ACE 500	3.6	3.8
	Fall 2012	ACE 520	4.7	4.7
	Fall 2012	ACE 500	4.4	4.4
	*Fall 2013	ACE 500	4.7	4.3
	*Fall 2014	ACE 500	4.4	4.1
	Fall 2015	ACE 500	4.5	4.2
	Fall 2016	ACE 500		
	Fall 2017	ACE 500		
	Fall 2015	ACE 427	3.7	3.9

Fall 2016	ACE 427
Fall 2017	ACE 427
Fall 2018	ACE 427
Spring 2019	ACE 264

3. Advising, Counseling, and Recruiting Students

1. Active in recruiting new graduate students. Emailed four admitted graduate students who would enter in Fall 2020. Talked to two by phone or video conference.
2. Quantitative trading club. Surveyed AGECE 421 to determine if there is interest among undergraduate students to form a quantitative or algorithmic trading club. Initial survey was very positive with half the class indicating interest. Plans to get started unofficially in Fall 2020 if we are on campus.

SECTION C. ENGAGEMENT

Presentations in Continuing Education Conferences, Schools, Workshops, or Meetings

1. “Biofuels, Carbon Markets, and Marketing in the Corn Belt” at the joint annual meeting of the Illinois Corn Marketing Board and the Illinois Corn Growers Association. Urbana, IL. January 20, 2010.
2. “The U.S. Ethanol Import Tariff” Illinois Agricultural Leadership Program. Mahomet, IL. February 5, 2011.
3. “Marketing Commodities in a Global Economy.” Global Academy of Leaders, Brazil. Champaign, IL. September 21, 2011.
4. “Commodity Futures Markets and Global Commodities Markets.” Presented to Ministry of Food delegation from Bangladesh as part of a World Bank short course administered by University of Illinois. Champaign, IL. August 31, 2018.
5. “Marketing Alternatives.” Midwest Agricultural Banking School. December 4, 2020.

Publications Related to Continuing Education Programs

A. Extension Publications and Output

1. Irwin, S., D. Good, and M. Mallory. October 4, 2010. “Could a Variable Ethanol Blenders’ Tax Credit Work?” Agricultural Policy Brief, University of Illinois Department of ACE. APBR-10-01.
2. Grajdura, S. and M. Mallory. February, 13, 2015. “Trading Off Fracked Natural Gas for Coal in China.” Policy Matters, University of Illinois Department of ACE.
3. Jolejole-Foreman, C., and M. Mallory. November 17, 2014. “Little Evidence that the National Food Authority Can Influence the Price of Rice in the Philippines.” Policy Matters, University of Illinois Department of ACE.

4. Horezeanu, L., and M. Mallory. April 23, 2015. "Why Formal Credit Eludes African Smallholder Farmers and the Role of Village Moneylenders." Policy Matters, University of Illinois Department of ACE.
5. Developed and maintain public website for education about Price Analysis. mindymallory.com/PriceAnalysis. Used in price analysis courses in at least 6 agricultural economics departments.
6. Mintert, J. and M. Mallory. "2020 Corn Price Outlook." Purdue Agricultural Economics Report. December 2020.
7. Mallory, M. "COVID-19 Impacts on U.S. Soybean and Wheat Exports." Purdue Agricultural Economics Report. April 2020.

Public and/or Government Service Activities, University and Departmental Committees

College and University Committees

1. College Academy of Teaching Excellence Committee. University of Illinois. 2018-2019
2. Faculty Senate. University of Illinois 2015-2017.
3. Faculty Senate Budget Committee. University of Illinois. 2017-2018.
4. College Courses and Curriculum. University of Illinois. 2018-2019.
5. College Professional Staff Awards & Specialized Faculty Teaching Award. University of Illinois. 2019.
6. Visioning Future Excellence at Illinois planning meeting, February 24, 2012
7. Faculty Senate. 2020-present.

Department Committees

1. C.J. Elliot Award Selection Committee. University of Illinois. 2010, 2019.
2. Undergraduate Programs Committee. University of Illinois. 2010-2013, 2017-2019.
3. Graduate Curriculum Committee. University of Illinois. 2010-2013.
4. ACE Departmental Seminar Series Co-organizer, 2010-2012.
5. Ph.D. Core Exam Committee. University of Illinois. 2011-2012.
6. Grievance Committee Alternate. University of Illinois. 2010-2011.
7. Department Search Committee, TCC Foundation Endowed Professor in Derivatives Trading. University of Illinois. 2011.
8. Ph.D. Core exam grader. University of Illinois. 2011-2012.
9. Department Faculty Advisory Committee. University of Illinois. 2012-2014.
10. Agribusiness Faculty Search Committee. University of Illinois 2013.
11. Energy Economics Faculty Search Committee. University of Illinois. 2013.
12. Graduate Admissions Review Committee. University of Illinois. 2012-2014.
13. Gardner Endowed Professor/Chair in Agricultural Policy Faculty Search. University of Illinois. 2016.
14. Undergraduate Coordinator. University of Illinois. 2016-2018.
15. Undergraduate Courses and Curriculum. University of Illinois. 2018-2019.
16. Promotion and Tenure. University of Illinois. 2019.

17. Ag Finance Faculty Search. University of Illinois. 2019.
18. Diversity and Inclusion Committee. 2019-2020.
19. Ag Policy Faculty Search Committee. 2019-2020.
20. Best Ph.D. dissertation in Agricultural Economics Department Selection Committee. 2019.
21. Bilsland Dissertation Completion Fellowships Selectin Committee. 2020.
22. Graduate Committee. 2020-present.

Mindy L. Mallory
SUMMARY OF SUPPORTING STRENGTHS

<u>A. Discovery</u>	<u>Page</u>
1. Current Research Program	2
- Highlighted articles with impact factors and citations	
2. Published Work	7
- 25 refereed journal articles	
- 22 invited or selected conference papers	
3. Unpublished Work	11
4. Invited Speaker 11 times to department seminars and other academic settings	12
5. Involvement in Graduate Program	13
- Advised 11 graduate students and served on 17 graduate committees	
6. Research Grants and Outside Support	14
- Total funding of \$785,731	
7. Evidence of National and International Recognition	16
- Co-editor <i>Applied Economics Perspectives and Policy</i>	
- Leadership in two AAEA sections, and two USDA regional research groups/coordinating committees	
8. International Activities	17
9. Interdisciplinary Activities	18
- Interdisciplinary research group published in <i>PNAS</i> and funded by NSF	
 <u>B. Learning</u>	 18
1. Courses Taught at Purdue University	19
- AGECE 421 Advanced Commodity Marketing	
- AGECE 605 Agricultural Markets and Price Analysis	
2. Courses Taught at other Universities	20
3. Advising Counseling and Recruiting Students	21
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