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RUIQING MIAO

4082 Haley Center, Auburn, AL, 36849
✉ miaorong@auburn.edu
www.miaorong.org

EDUCATION

2012	**Ph.D. in Economics**, Iowa State University, Ames, Iowa, USA Dissertation: *Essays on Investments in New Technologies — Policy, Information, and Learning* Advisor: David A. Hennessy
2004	**M.A. in Economics**, University of Shanghai for Science and Technology, Shanghai, China
2001	**B.A. in Economics** (double major in International Business Management and Computer Science and Applications), Ocean University of China, Qingdao, China

PROFESSIONAL EXPERIENCE

08/2025 - present	Professor, Department of Agricultural Economics and Rural Sociology, Auburn University
08/2020 - 08/2025	Associate Professor, Department of Agricultural Economics and Rural Sociology, Auburn University
01/2022 - 06/2022	Visiting Scholar, Department of Agricultural and Resource Economics, University of California, Berkeley
08/2015 - 08/2020	Assistant Professor, Department of Agricultural Economics and Rural Sociology, Auburn University
09/2015 - present	Affiliated Faculty Member, International Center for Climate and Global Change Research, Auburn University
09/2012 - 08/2015	Postdoctoral Research Associate, Department of Agricultural and Consumer Economics and Energy Biosciences Institute, University of Illinois at Urbana-Champaign. Advisor: Madhu Khanna
03/2012 - 08/2012	Postdoctoral Research Associate, Center for Agricultural and Rural Development (CARD), Iowa State University. Advisors: David A. Hennessy and Hongli Feng
06/2011 - 02/2012	Predoctoral Research Associate, Center for Agricultural and Rural Development (CARD), Iowa State University. Advisors: David A. Hennessy and Hongli Feng
08/2006 - 05/2011	Graduate Assistant, Department of Economics and Center for Agricultural and Rural Development (CARD), Iowa State University
2009 and 2010	Instructor, Summer sessions, Iowa State University
02/2005 - 06/2006	Instructor, Fudan University, China
09/2004 - 01/2005	Instructor, University of Shanghai for Science and Technology, China
02/2003 - 06/2003	Instructor, University of Shanghai for Science and Technology, China
09/2004 - 07/2006	Graduate Assistant, Department of Economics, Fudan University, China

SELECTED HONORS AND AWARDS

2026	Presidential Recognition Award, Agricultural & Applied Economics Association (AAEA)
2026	Outstanding Reviewer Award 2025, *Food Policy*
2023 - 2025	Co-Editor, *Choices* Magazine (currently AEEE)
2023 - 2026	Associate Editor, *Natural Resource Modeling*
2024	Honorable mention for 2024 *Applied Economics Teaching Resources* Outstanding Article Award
2021 - 2024	Associate Editor, *Agricultural Economics*
2020 - 2023	Associate Editor, *American Journal of Agricultural Economics*
2022	Dean's Research Award, College of Agriculture, Auburn University
2021	Outstanding Journal Article 2020 of the *European Review of Agricultural Economics*, the European Agricultural and Applied Economics Publications (EAAEP) Foundation
2020	Outstanding Publication Award (High Scientific Impact), College of Agriculture, Auburn University
2019	Emerging Scholar Award, Southern Agricultural Economics Association (SAEA)
2017	Dean's Grantsmanship Award, College of Agriculture, Auburn University
2010	Graduate Teaching Excellence Award, Iowa State University
2010	Graduate and Professional Student Senate Peer Research Award, Iowa State University
2010	Graduate and Professional Student Senate Peer Teaching Award, Iowa State University

SELECTED HONORS AND AWARDS OF STUDENTS

2025	Azaz Zaman, AAEA GSS & C-FARE 2025 Policy Communications Competition, 1st place
2025	Pritam Mitra, 2025 graduate student paper award, Agriculture, Food, and Human Values Society
2025	Pritam Mitra, Quality of Teaching Award, Department of Agricultural Economics and Rural Sociology, Auburn University
2024	Azaz Zaman, AAEA GSS & C-FARE 2024 Policy Communications Competition, 2nd place
2024	Pritam Mitra, Merriwether Fellowship, Auburn University
2021	Prasenjit Ghosh, SAEA Outstanding Dissertation Award
2021	Brian Cornish, Presidential Graduate Opportunity Program Fellowship, Auburn University

BOOK

1. Zilberman, David, Ruiqing Miao, and Jian Rong. 2025. ***Agricultural Economics and Policy***. World Scientific Publishing Company. Singapore. doi: https://doi.org/10.1142/14016

JOURNAL ARTICLES (* indicates graduate students; ** post-docs; *** visiting scholars)

54. Ruiqing Miao, Anand, Mohit*, Bijesh Mishra**, Madhu Khanna, and Fahd Majeed. *forthcoming*. "Exploring Feedstock Pathways to Three Billion Gallons of Sustainable Aviation Fuel: The Role of Contracts and Bioenergy Crop Insurance." ***Applied Economic Perspectives & Policy***. doi: https://doi.org/10.1002/aepp.70129

53. Chen, Jian, Madhu Khanna, Ruiqing Miao, Matthew O'Neal, John Tyndall, Ajay Nair, and Hongli Feng. *forthcoming*. "Measuring Energy-Agriculture Dual Production in Agrivoltaics: Efficiency Metrics, Stakeholder Decision Needs, and Implications for Land-Use Decisions." ***Renewable and Sustainable Energy Reviews***. doi: https://doi.org/10.1016/j.rser.2026.117532

52. Khanna, Madhu, Paul Mwebaze, James McCall, Fahd Majeed, DK Lee, Xuzhi Du, Mengqi Jia, Nenad Miljkovic, Bin Peng, Ruiqing Miao, Kaiyu Guan, Jordan Macknick. 2026. "Economic Incentives for Agrivoltaics Systems with Commodity Crops in the Midwestern United States." ***Journal of Benefit-Cost Analysis*** 17(1-2):18-51. doi: https://doi.org/10.1017/bca.2026.10051

51. Khanna, Madhu, Paul Mwebaze, Fahd Majeed, James McCall, Mengqi Jia, Xuzhi Du, Jordan Macknick, DoKyoung Lee, Bin Peng, Nenad Miljkovic, Evan DeLucia, Carl Bernacchi, Kaiyu Guan, Bruce Branham, Alan K. Knapp, Greg Barron-Gafford, Ruiqing Miao, Andrea Gerlak, Bijesh Mishra, and Nuria Gomez-Casanovas. 2026. "Agrivoltaics with Row Crops as a Pathway to Solar Farming on Cropland." ***npj Clean Energy*** 2: 32. doi: https://doi.org/10.1038/s44406-026-00049-1

50. Zhang, Jingfang, Emir Malikov, Ruiqing Miao, and Prasenjit Ghosh. 2026. "Geography of Climate Change Adaptation in U.S. Agriculture." ***Journal of Regional Science*** 66(1): 46-88. doi: https://doi.org/10.1111/jors.70014

49. Mitra, Pritam*, Samir Huseynov, and Ruiqing Miao. 2026. "From Labels to Land: The Risks and Realities of Pesticide Use in India." ***Agriculture and Human Values*** 43:44, 1-18. doi: https://doi.org/10.1007/s10460-026-10852-2

48. Miao, Ruiqing, Yijia Li, Madhu Khanna, Christopher Clark, Dallas Burkholder, and Luoye Chen. 2026. "Quantifying the Land-Use Change Due to Soybean-Based Biodiesel in the United States." ***Applied Economic Perspectives and Policy*** 48(1): 20-27. doi: https://doi.org/10.1002/aepp.70005

47. Ulucak, Recep, and Ruiqing Miao. 2026. "Club Convergence and Drivers of Agricultural Innovation in U.S. States: 1976-2023." ***Agricultural Economics*** 57(2): e70104. doi: https://onlinelibrary.wiley.com/doi/10.1111/agec.70104

46. Majeed, Fahd, Madhu Khanna, and Ruiqing Miao. *2026*. "Designing Cost-Effective Carbon Payments to Induce Cellulosic Feedstock Production for Sustainable Aviation Fuel." ***Applied Economic Perspectives and Policy*** 48(2): 346-358. doi: https://doi.org/10.1002/aepp.70025

45. Ke, Zhan*, Tanmay Rahman*, Daniel Meadows*, Edward Davis, Virginia Davis, Bryan S. Beckingham, Ruiqing Miao, Thomas Elder, Brian Via, Yucheng Peng. 2026. "Reclaiming polyethylene from multilayer plastic packaging by separating oxygen barrier material using solvent-based selective dissolution: recycling polyethylene for property characterization." ***ACS Sustainable Chemistry & Engineering*** 14(4): 1858-1872. doi: https://doi.org/10.1021/acssuschemeng.5c08837

44. Wilson, Norbert and Ruiqing Miao. 2025. "Food Waste, Date Labels, and Lost Aversion: An Experimental Exploration." ***Applied Economic Perspectives and Policy*** 47(3): 1029-1057. doi: https://doi.org/10.1002/aepp.13507

43. Mishra Bijesh**, Ruiqing Miao, Ngbede Musa, Dennis Brothers, Madhu Khanna, Adam N. Rabinowitz, Paul Mwebaze, and James McCall. 2025. "Specialty Crop Agrivoltaics in the Southeastern USA: Profitability and the Role of Rural Energy for America Program". ***Choices*** 40(1): 1-10. doi: https://doi.org/10.22004/ag.econ.350119

42. Bhandari, Nabin*, Joel Cuffey, Ruiqing Miao, and David Zilberman. 2025. "Heterogeneity of the Association Between Obesity and COVID-19 Mortality and the Roles of Policy Interventions: U.S. National-Level Analysis." ***American Journal of Preventive Medicine*** (***AJPM***) ***Focus*** 4(3):100312. doi: https://doi.org/10.1016/j.focus.2024.100312

41. Zhang, Jingfang, Emir Malikov, and Ruiqing Miao. 2024. "Distributional Effects of the Increasing Heat Incidence on Labor Productivity." ***Journal of Environmental Economics and Management*** 125: 102998. doi: https://doi.org/10.1016/j.jeem.2024.102998

40. Miao, Ruiqing, Recep Ulucak***, and David Zilberman. 2024. "Public Agricultural Research, Political Economy, and Climate Change: A Literature Review." ***Applied Economic Perspectives and Policy*** 46(3): 954-982. doi: https://doi.org/10.1002/aepp.13455

39. Ghosh, Prasenjit*, Ruiqing Miao, and Emir Malikov. 2023. "Crop Insurance Premium Subsidy and Irrigation Water Withdrawals in the Western United States." ***The Geneva Papers on Risk and Insurance - Issues and Practice.*** 48(4): 968-992. doi: https://doi.org/10.1057/s41288-021-00252-4

38. Chaoqun Lu, Jien Zhang, Bo Yi*, Ignacio Calderon*, Hongli Feng, Ruiqing Miao, David A. Hennessy, Shufen Pan, and Hanqin Tian. 2023. "Riverine nitrogen footprint of agriculture in the Mississippi-Atchafalaya River Basin: do we trade water quality for crop production?" ***Environmental Research Letters*** 18(11): 114043. doi: https://doi.org/10.1088/1748-9326/ad0128

37. Gomez-Casanovas, Nuria, Paul Mwebaze, Madhu Khanna, Bruce Branham, Alson Time, Evan H. DeLucia, Carl J. Bernacchi, Alan K. Knapp, Muhammad J. Hoque, Xuzhi Du, Elena Blanc-Betes, Greg A. Barron-Gafford, Bin Peng, Kaiyu Guan, Jordan Macknick, Ruiqing Miao, Nenad Miljkovic. 2023. "Knowns, uncertainties, and challenges in agrivoltaics to sustainably intensify energy and food production." ***Cell Reports Physical Science*** 4(8): 101518. doi: https://doi.org/10.1016/j.xcrp.2023.101518

36. Cuffey, Joel, Wenying Li, Yang Yu, and Ruiqing Miao. 2023. Retail food environment and household food waste: An empirical study. ***Food Policy*** 117(102457). doi: https://doi.org/10.1016/j.foodpol.2023.102457

35. Majeed, Fahd*, Madhu Khanna, Ruiqing Miao, Elena Blanc-Betes, Tara Hudiburg, and Evan H. DeLucia. 2023. "Carbon Credit Markets Can Reduce the Riskiness of Bioenergy Crop Production." ***Journal of the Agricultural and Applied Economics Association*** 2(2): 181-197. doi: https://doi.org/10.1002/jaa2.52

34. Miao, Ruiqing, Hongli Feng, David A. Hennessy, Gaurav Arora, and Charles R. Loesch. 2023. "Grassland Easement Acquisition: Conversion Hazard Rate, Additionality, Spatial Spillover, and Heuristics." ***Applied Economic Perspectives and Policy*** 45(2): 928-946. doi: https://doi.org/10.1002/aepp.13318

33. Miao, Ruiqing, Jerrod Penn, and Loka Ashwood. 2023. "How to Thrive in Agricultural Economics PhD Programs: SAEA Emerging Scholar Award Winners' Experience and Advice." ***Applied Economics Teaching Resources*** 5: 1-20. doi: https://doi.org/10.22004/ag.econ.333522 (**Award:** Honorable mention for the 2024 AETR Outstanding Article Award)

32. Yu, Shi, Yajie Zhang, Bingyan Wu, Hao Shi, Linchao Li, Ning Jin, Bin Wang, DeLi Liu, Ruiqing Miao, Xiaoliang Lu, Qingling Geng, Chaoqun Lu, Liang He, Nufang Fang, Chao Yue, Jianqiang He, Hao Feng, Shufen Pan, Hanqin Tian, Qiang Yu. 2022. "Building social resilience in North Korea can mitigate the impacts of climate change on food security." ***Nature Food*** (3):499-511. doi: https://doi.org/10.1038/s43016-022-00551-6

31. You, Yongfa*, Hanqin Tian, Shufen Pan, Hao Shi, Zihao Bian, Angelo Gurgel, Yawen Huang, David Kicklighter, Xin-Zhong Liang, Chaoqun Lu, Jerry Melillo, Ruiqing Miao, Naiqing Pan, John Reilly, Wei Ren, Rongting Xu, Jia Yang, Qiang Yu, and Jingting Zhang. 2022. Incorporating dynamic crop growth processes and management practices into a terrestrial biosphere model for

simulating crop production in the United States: Toward a unified modeling framework. ***Agricultural and Forest Meteorology*** (325):109144. doi: https://doi.org/10.1016/j.agrformet.2022.109144

30. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2022. "Grassland Easement Evaluation and Acquisition: An Integrated Framework." ***Canadian Journal of Agricultural Economics*** 70(1):41-61. doi: https://doi.org/10.1111/cjag.12302

29. Khanna, Madhu and Ruiqing Miao. 2022. "Inducing Sustainable Intensification of Agriculture: Insights from Applied Economics." ***Australian Journal of Agricultural and Resource Economics*** 66(1):1-23. doi: https://doi.org/10.1111/1467-8489.12461

28. Awolala, David Olufemi, Igbekele Amos Ajibefun, Kehinde Ogunjobi, and Ruiqing Miao. 2022. "Integrated Assessment of Human Vulnerability to Extreme Climate Hazards: Emerging Outcomes for Adaptation Finance Allocation in Southwest Nigeria." ***Climate and Development*** 14(2):166-183. doi: https://doi.org/10.1080/17565529.2021.1898925

27. Cornish, Brian*, Ruiqing Miao, and Madhu Khanna. 2022. "Impact of changes in Title II of the 2018 Farm Bill on the Acreage and Environmental Benefits of Conservation Reserve Program." ***Applied Economic Perspectives and Policy*** 44(2):1100-1122. doi: http://doi.org/10.1002/aepp.13185

26. Yu, Chengzheng*, Ruiqing Miao, and Madhu Khanna. 2021. "Maladaptation of U.S. Corn and Soybeans to a Changing Climate." ***Scientific Reports*** 11:12351. doi: https://doi.org/10.1038/s41598-021-91192-5

25. Malikov, Emir, Ruiqing Miao, and Jingfang Zhang*. 2020. "Distributional and Temporal Heterogeneity in the Climate Change Effects on U.S. Agriculture." ***Journal of Environmental Economics and Management***. 104:1-10. doi: https://doi.org/10.1016/j.jeem.2020.102386

24. Li, Yijia*, Ruiqing Miao, and Madhu Khanna. 2020. "Neonicotinoids and Decline in Bird Biodiversity in the United States." ***Nature Sustainability*** 3:1027-1035. doi: https://doi.org/10.1038/s41893-020-0582-x

23. Miao, Ruiqing. 2020. "Climate, Insurance, and Innovation: The Case of Drought and Innovations in Drought-Tolerant Traits in U.S. Agriculture." ***European Review of Agricultural Economics*** 47(5):1826-1860. doi: https://doi.org/10.1093/erae/jbaa010 (**Award:** Outstanding Journal Article 2020)

22. Miao, Ruiqing and Madhu Khanna. 2020. "Harnessing Advances in Agricultural Technologies to Optimize Resource Utilization in the Food-Energy-Water Nexus." ***Annual Review of Resource Economics*** 12:65-85. doi: https://doi.org/10.1146/annurev-resource-110319-115428

21. Li, Yijia*, Ruiqing Miao, and Madhu Khanna. 2019. "Effects of Ethanol Plant Proximity and Crop Prices on Land-Use Change in the United States." ***American Journal of Agricultural Economics*** 101(2):467-491. doi: https://doi.org/10.1093/ajae/aay080

20. Miao, Ruiqing, Prasenjit N. Ghosh*, Madhu Khanna, Weiwei Wang, and Jian Rong. 2019. "Effect of Wind Turbines on Bird Abundance: a National Scale Analysis based on Fixed Effects Models." ***Energy Policy*** 132:357-366. doi: https://doi.org/10.1016/j.enpol.2019.04.040

19. Schillerberg, Tayler A.*, Di Tian, and Ruiqing Miao. 2019. "Spatiotemporal patterns of maize and winter wheat yields in the United States: predictability and impact from climate oscillations." ***Agricultural and Forest Meteorology*** 275:208-222. doi: https://doi.org/10.1016/j.agrformet.2019.05.019

18. Anand, Mohit*, Ruiqing Miao, and Madhu Khanna. 2019. "Adopting Bioenergy Crops: Does Farmers' Attitude toward Loss Matter?" ***Agricultural Economics*** 50(4):435-450. doi: https://doi.org/10.1111/agec.12501

17. Wilson, Norbert L.W., Ruiqing Miao, and Carter S. Weis*. 2019. "When in Doubt Throw It Out! The Complicated Decision to Consume or Waste Food by Date Labels." ***Choices*** 34(1):1-7.

16. Wilson, Norbert L.W., Ruiqing Miao, and Carter S. Weis*. 2018. "Seeing is Not Believing: Perceptions of Date Labels over Food and Attributes." ***Journal of Food Products Marketing*** 24(5):611-631. doi: https://doi.org/10.1080/10454446.2018.1472700

15. Tian, Hanqin, Chaoqun Lu, Shufen Pan, Jia Yang, Ruiqing Miao, Wen Ren, Qiang Yu, Bojie Fu, Fei-Fei Jin, Yonglong Lu, Jerry Melillo, Zhiyun Ouyang, Cheryl Palm, John Reilly. 2018. "Optimizing Resource Use Efficiencies in the Food-Energy-Water nexus for Sustainable Agriculture: From Conceptual Model to Decision Support System." ***Current Opinion in Environmental Sustainability*** 33:104-113. doi: https://doi.org/10.1016/j.cosust.2018.04.003

14. Miao, Ruiqing and Madhu Khanna. 2017. "Effectiveness of the Biomass Crop Assistance Program: Roles of Behavioral Factors, Credit Constraint, and Program Design." ***Applied Economic Perspectives and Policy*** 39(4): 584-608. doi: https://doi.org/10.1093/aepp/ppx031

13. Miao, Ruiqing and Madhu Khanna. 2017. "Costs of Meeting a Cellulosic Biofuel Mandate with Perennial Energy Crops: Implications for Policy." ***Energy Economics*** 64: 321-334. doi: https://doi.org/10.1016/j.eneco.2017.03.018

12. Miao, Ruiqing, Madhu Khanna, and Haixiao Huang. 2016. "Responsiveness of Crop Yield and Acreage to Price and Climate." ***American Journal of Agricultural Economics*** 98(1): 191-211. doi: https://doi.org/10.1093/ajae/aav025

11. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2016. "The Effect of Crop Insurance Subsidies and Sodsaver on Land Use Change." ***Journal of Agricultural and Resource Economics*** 41(2): 247-265.

10. Miao, Ruiqing, Hongli Feng, David A. Hennessy, and Xiaodong Du. 2016. "Assessing Cost-effectiveness of the Conservation Reserve Program and Its Interaction with Crop Insurance Subsidies". ***Land Economics*** 92(4): 593-617. doi: https://doi.org/10.3368/le.92.4.593

9. Miao, Ruiqing and David A. Hennessy. 2015. "Optimal Protein Segregation Strategies for Wheat Growers." ***Canadian Journal of Agricultural Economics***. 63(3): 309-331. doi: https://doi.org/10.1111/cjag.12046

8. Du, Xiaodong, Cindy L. Yu, David A. Hennessy, and Ruiqing Miao. 2015. "Geography of Crop Yield Skewness." ***Agricultural Economics***. 46(4): 463-473 (lead article). doi: https://doi.org/10.1111/agec.12174

7. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2014. "Sodbusting, Crop Insurance and Sunk Conversion Costs." ***Land Economics***. 90(4): 601-622. doi: https://doi.org/10.3368/le.90.4.601

6. Miao, Ruiqing and Madhu Khanna. 2014. "Are Bioenergy Crops Riskier than Corn? Implications for Biomass Price". ***Choices***. 29(1).

5. Miao, Ruiqing and David A. Hennessy. 2014. "To Learn or To Change: Optimal R&D Investments under Uncertainty in the Case of Climate Change." ***Natural Resource Modeling***. 27(2): 235-257. doi: https://doi.org/10.1111/nrm.12032

4. Miao, Ruiqing. 2013. "Impact of Ethanol Plants on Local Land Use Change." ***Agricultural and Resource Economics Review***. 42(2): 275-293. doi: https://doi.org/10.22004/ag.econ.155314

3. Feng, Hongli, David A. Hennessy, and Ruiqing Miao. 2013. "The Effects of Government Payments on Native Grassland Conversion, the CRP, and Corn Acreage Changes in the Dakotas." ***American Journal of Agricultural Economics*** (proceedings issue). 95(2): 412-418. doi: https://doi.org/10.1093/ajae/aas112

2. Miao, Ruiqing, David A. Hennessy, and Bruce A. Babcock. 2012. "Investment in Cellulosic Biofuel Refineries: Do Waivable Biofuel Mandates Matter?" ***American Journal of Agricultural Economics***. 94(3): 750-762. doi: https://doi.org/10.1093/ajae/aar142

1. Miao, Ruiqing. 2011. "Bargaining between Firms and Environmental Protection Bureaus: Water Pollution in China." ***China Agricultural Economic Review***. 3(1): 80-91. doi: https://doi.org/10.1108/17561371111103561

BOOK CHAPTERS

2. Miao, Ruiqing and Emir Malikov. 2024. "Adaptation of Agriculture to Climate Change." In: Lundgren, T., Bostian, M., Managi, S. (eds.) *Encyclopedia of Energy, Natural Resource, and Environmental Economics*, 2e. vol. 3, pp. 245-253. USA: Elsevier. doi: dx.doi.org/10.1016/B978-0-323-91013-2.00049-6

1. Khanna, Madhu, David Zilberman, and Ruiqing Miao. 2017. "Innovation in Agriculture: Incentives for Adoption and Supply Chain Development for Energy Crops." In Madhu Khanna and David Zilberman ed. *Handbook of Bioenergy Economics and Policy* (*Volume II*), Springer Publishers.

OUTREACH ARTICLES, CONFERENCE PROCEEDINGS, AND REPORTS (* indicates students)

17. Miao, Ruiqing, Bijesh Mishra, Anand, Mohit, Madhu Khanna, and Fahd Majeed. 2026. "Growth of Sustainable Aviation Fuel May Create a Potential Market for Miscanthus and Switchgrass in the Southern U.S." Southern Ag Today 6(47.3). November 18, 2026. Available at: Here.

16. Kolodinsky, Jane and Ruiqing Miao. 2025. "Theme Overview: The Challenge of Providing Safe and Accessible Food for a Healthy Life". ***Choices***, 40(1). Available at: Here.

15. Miao, Ruiqing, Hongli Feng, David A. Hennessy, Gaurav Arora, and Charles R. Loesch. 2020. "Grassland Easement Acquisition: Conversion Hazard Rate, Additionality, and Spatial Spillover." In Knuffman, L., ed. 2020. *America's Grasslands Conference: Working across Boundaries. Proceedings of the* 5^{th} *Biennial Conference on the Conservation of America's Grasslands. August 20-22, 2019, Bismarck, ND.* Washington, DC: National Wildlife Federation. Available at: Here.

14. Miao, Ruiqing and Madhu Khanna. 2020. "The Food-Energy-Water Nexus and Emerging Agricultural Technologies." Farmdoc daily (10):137, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, July 24. Available at: Here.

13. Miao, Ruiqing. 2020. "Tradeoff between Short-Term and Long-Term Risk Management Tools: New Study Shows that Crop Insurance May Hinder Agricultural Innovations in Drought-Tolerant Technologies." Farmdoc daily (10):115, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 24. Available at: Here.

12. Ghosh, Prasenjit N.*, Ruiqing Miao, and Madhu Khanna. 2019. "Wind Energy and Birds: Taller Turbines with Shorter Blades Are More Friendly to Breeding Birds." PolicyMatters. University of Illinois at Urbana-Champaign, July 9th. Available at: Here.

11. Miao, Ruiqing, Madhu Khanna, and Mohit Annad. 2019. "Fear of Losses: Study Shows that Farmers' Loss Aversion Attitude Renders Miscanthus Less Appealing but Switchgrass More Attractive." Farmdoc daily (9):120, Gardner Policy Series. Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 28, 2019. Available at: Here.

10. Miao, Ruiqing, Yijia Li*, and Madhu Khanna. 2018. "New Study Shows that Corn Acreage and Total Crop Acreage are not very Responsive to Local Ethanol Production and Crop Prices." Farmdoc Daily (8):233, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, December 20. Available at: Here

9. Wilson, Norbert L.W., Ruiqing Miao, and Carter S. Weis*. 2018. "Study Shows New Evidence That Consumers Are Confused By Date Labels On Food Items." PolicyMatters. University of Illinois at Urbana-Champaign. Available at: Here.

8. Miao, Ruiqing and Madhu Khanna. 2017. "Limited Impact of Biomass Crop Assistance Program (BCAP) Under Current Funding Levels." Farmdoc Daily (7):155, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, August 24. Available at: Here.

7. Miao, Ruiqing and Madhu Khanna. 2017. "Reducing costs of meeting a cellulosic biofuel mandate with perennial energy crops: potential roles of energy crop insurance and establishment cost subsidies." PolicyMatters. University of Illinois at Urbana-Champaign. Available at: Here.

6. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2017. "How much can the Sodsaver Provision in the 2014 Farm Bill Save Sod? It Depends on Crop Prices." PolicyMatters. University of Illinois at Urbana-Champaign. Available at: Here.

5. Miao, Ruiqing, Hongli Feng, David A. Hennessy, and Xiaodong Du. 2016. "Linkage between Federal Crop Insurance Program and the Conservation Reserve Program: Implications for Budgetary Outlays and Environmental Efficiency." PolicyMatters, November 16. University of Illinois at Urbana-Champaign. Available at: Here.

4. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2014. "Risk Management Subsidies, Production System Switching Costs, and Native Grassland Conversion." In Proceedings of the 2nd America's Grasslands Conference — America's Grasslands: The Future of Grasslands in a Changing Landscape, August 12-14, 2013, Manhattan, Kansas. Available at Here.

3. Khanna, Madhu and Ruiqing Miao. 2014. "Policy Incentives for Energy Crop Production: Role of the Biomass Crop Assistance Program." PolicyMatters, June 3rd. University of Illinois at Urbana-Champaign. Available at Here.

2. Ruiqing and Madhu Khanna. 2014. "Economic and Social Impacts of Biofuels." in Energy Biosciences Institute Annual Report 2013.

1. Miao, Ruiqing, David A. Hennessy, and Hongli Feng. 2011. "Land Use Consequences of Crop Insurance Subsidies." In Proceedings of America's Grasslands Conference — America's Grasslands: Status, Threats and Opportunities, August 15-17, 2011, Sioux Falls, SD. Available at: Here.

EDITED ISSUE

1. Guest editor, *AJAE Virtual Issue*: "Technological Innovations in Agriculture." Published on January 7, 2023.

PAPERS UNDER REVIEW (* indicates graduate students; ** post-docs; * visiting scholars)**

12. Zhu, Yanlin*, Ruiqing Miao, and Joshua Duke. "The Impact of the Conservation Reserve Program on Local Agribusinesses." R&R at *Applied Economic Perspectives & Policy*.
11. Bhandari, Nabin* and Ruiqing Miao. "Birds, neonicotinoids, and U.S. corn and soybean yields." R&R at *Applied Economic Perspectives & Policy*.
10. Fan, Xinxin**, Madhu Khanna, and Ruiqing Miao. "Time-varying Estimates of the Ethanol-induced Land Use Change Effects in the United States." R&R at *Land Use Policy*.
9. Liang, Wanqi, Siqi Gao*, Ruiqing Miao, and Wenying Li. "Climate-Induced Decline in Key Nutrient Intakes Threatens Children and Rural Populations." R&R at *Nature Food*.
8. Malikov, Emir, Jingfang Zhang, and Ruiqing Miao. "Global Warming, Local Effects." under review.
7. Mishra, Bijesh, Paul Mwebaze, Ruiqing Miao, Madhu Khanna, Caroline Hernandez, and Fahd Majeed. "What Will Drive Agrivoltaics Adoption: Evidence from the US Solar Developer's Survey." under review.
6. Majeed, Fahd, Madhu Khanna, Ruiqing Miao, Jonathan Coppess, and Kaiyu Guan. "Incentivizing Cover Crop Adoption: Effectiveness of Alternative Policy Approaches." under review.
5. Ulucak, Recep***, and Ruiqing Miao. "Exploring the Multi-Dimensional Landscape of Agricultural Innovation: A Bibliometric Analysis of Evolving Trends and Themes Serving Sustainable Development." under review.
4. Zaman, Azaz*, Ruiqing Miao, and Madhu Khanna. "Policy Uncertainty, Market, Political Polarization, and Utility-scale Solar in the United States." under review.
3. Ye, Shuchao*, Chaoqun Lu, Ruiqing Miao, Xiaoqiong Chen, and Azaz Zaman. "Soil erosion reduction and economic returns of the U.S. Conservation Reserve Program." under review.
2. Mitra, Pritam*, Ruiqing Miao, and Norbert L.W. Wilson. "Date Labels, Ambiguity, and Food Waste: An Experimental Analysis." under review.
1. Zaman, Azaz*, Ruiqing Miao, Jingfang Zhang, and Emir Malikov. "Effects of Heat Stress across the U.S. Farm Profitability Distribution." under review.

SELECTED WORK IN PROGRESS (* indicates graduate students; ** post-docs; * visiting scholars)**

On Food and Agricultural Policy

15. "Climate, Insurance, and Crop Yield: Evidence from U.S. Agriculture." with Nabin Bhandari*.
14. "Are Crop Insurance Subsidies for Cover Cropping Enough to Drive Large-Scale Adoption?" with Fahd Majeed, Madhu Khanna, and Joseph Cooper.

13. "The Effect of Crop Insurance Program on Fertilizer Use in US Agriculture." with Ekene Agueg-boh*, Joel Cuffey, Adam Rabinowitz, and Chaoqun Lu.

12. "Ambiguity Aversion and Demand-Informed Ratemaking: Evidence from U.S. Crop Insurance." with Ethan Zhong.

11. "Mitigating Climate Change with the Conservation Reserve Program in the United States: The Role of Program Redesign." with Brian Cornish*, Daniel Hellerstein and Andrew Rosenberg.

10. "U.S. Farmer Perceptions of Agricultural Carbon Markets." with Emmanuel Kossy Okonkwo*, Wendiam Sawadgo, and Shuo Yu.

9. "Reducing plastic pollution in food packaging: Should we tax virgin plastic consumers or producers?" with Nabin Bhandari*.

8. "Valuing Agrivoltaics: Farmer Preferences and Policy Implications for Dual Land Use in the U.S. Midwest." with Paul Mwebaze, Madhu Khanna, Fahd Majeed, and Bijesh Mishra.

On Weather and Agriculture

7. "Weather Shocks and County Level Food Demand: an Augmented Almost Ideal Demand System Using Retail Scanner Data." with Yunei Hua*, Jingfang Zhang, Haoluan Wang, and Wenying Li.

6. "The Impact of Cover Cropping on Crop Yield Resilience to Extreme Weather Events: Evidence from High-Resolution Remote Sensing." with Sunjae Won and Emir Malikov.

On Innovation and Agricultural Productivity

5. "Are All Innovations Created Equal? Evaluating Agricultural Innovations by Startups, Large agribusinesses, and Public Research Institutions in the United States." with Gregory Graff.

4. "Do Startups, Large Agribusinesses, and Public Research Institutions Innovate Differently in Response to Farm Labor Shortages?" with Gregory Graff and Diane Charlton.

3. "Public Agricultural R&D Composition and Total Factor Productivity Growth: Evidence from Text Analysis of Over 100,000 USDA-Funded Research Projects." with Ariel Ortiz-Bobea and Emir Malikov.

2. "Responsiveness of Public Agricultural R&D to Climate Shocks: A Global Analysis."

1. "The Double-Edged 'Operation National Sword': How Did China's Waste Import Ban Affect Recycling Innovation?"

PUBLICATIONS IN CHINESE

7. "Welfare Analysis of Economic Growth," (with Jin Feng, Yongping Liu, and Jian Rong). In Zhigang Yuan, ed. Economic Growth of China: Institution, Structure and Welfare. Shanghai, China: Fudan University Press, 2006. pp. 287-308.

6. "Improving Welfare: Approaches and Policies," (with Jin Feng, Yongping Liu, and Jian Rong). In Zhigang Yuan, ed. Economic Growth of China: Institution, Structure and Welfare. Shanghai, China: Fudan University Press, 2006. pp. 309-328.

5. "Effects of U.S. FDI on its Balance of Payments," (with Jian Rong), World Economics and Politics (Shijie Jingji yu Zhengzhi), 2005, No. 5, pp. 76-80. Reprinted in Review of Economic Research (Jingji Yanjiu Cankao), July 2005 (No. 55).

4. "Analysis of Factors Affecting the Speed and Quantity of China's Rural-Urban Labor Migration: a Revised Todaro Model," (with Jian Rong and Shuhua Zheng), China Rural Survey (Zhongguo Nongcun Guancha), 2004, No.2, pp. 39-45.

3. "Review of the Current Urbanization Strategy from the Perspective of the Ultimate Objective of China's Urbanization," (with Xinyu Wang), Guangxi Economy (Guangxi Jingji), 2003, No.4, pp. 24-25.

2. "Agglomeration and Regional Economic Development," (with Xinyu Wang), Learned Journal of Heilongjiang Financial College (Harbin Shangye Daxue Xuebao), 2003, No.3, pp. 3-5.

1. "Independent Directors: Not Necessarily a Recipe for Corporate Governance Structure," (with Xinyu Wang and Tian Tao), Value Engineering (Jiazhi Gongcheng), 2003, No.6.

OTHER PUBLICATIONS (♣ indicates undergraduate students)

4. Bridges, Gracen M♣ and Ruiqing Miao. 2023. "A Study of Climate Change Impact on Alabama Crops." *Auburn University Journal of Undergraduate Scholarship.* Available at: https://bpb-us-e2.wpmucdn.com/wordpress.auburn.edu/dist/a/151/files/2023/06/Bridges-Final.pdf

3. Wessel, Mary Lindsey♣ and Ruiqing Miao. 2023. "A Case Study of Crop Insurance Fraud in Alabama." *Auburn University Journal of Undergraduate Scholarship.* Available at: https://bpb-us-e2.wpmucdn.com/wordpress.auburn.edu/dist/a/151/files/2023/07/Wessel-Final.pdf

2. Rosales Aguilar, Roshell♣, Ruiqing Miao, and Norbert L. W. Wilson. 2021. "Understanding the Causes and Exploring Remedies for Food Waste and Food Loss." *Auburn University Journal of Undergraduate Scholarship.* Available at: http://our.auburn.edu/wp-content/uploads/2021/09/Aguilar-pdf.pdf

1. Ingram, Seth♣ and Ruiqing Miao. 2021. "Impact of the US-China Trade War on the Alabama Soybean Industry." *Auburn University Journal of Undergraduate Scholarship.* Available at: http://our.auburn.edu/wp-content/uploads/2021/05/Ingram-PDF.pdf

UNPUBLISHED MANUSCRIPTS

3. Miao, Ruiqing and David A. Hennessy. "Economic Value of Information: Wheat Protein Measurement." Iowa State University, 2012.

2. Miao, Ruiqing and Bruce A. Babcock. "Double Irreversibilities and the Development of Advanced Biofuels." Iowa State University, 2009.

1. Miao, Ruiqing and Bruce A. Babcock. "Is the Carbon Debt of Land-Use Change Caused by Biofuel Growth Too High to Repay?" Iowa State University, 2008.

GRANTS AND CONTRACTS

Pending

1. Co-PI, "Strategic Risk Management in Southeastern Agriculture: Exploring the Interplay Between Irrigation, Crop Insurance, and Cover Crop." with PI Sunjae Won (Ag Econ, Auburn) and Co-PI JooChul Lee (Mathematics and Statistics, Auburn). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $650,000. (submitted on 10/9/2025)

Funded or Approved

18. PI, "Public R&D, Crop Insurance, and Agricultural Productivity Growth: Evidence from Decomposed Total Factor Productivity in the United States." Agricultural Research Enhancement & Seed Funding Program, College of Agriculture, Auburn University. $70,000. (submitted on 7/17/2026)

17. PI, "Are all innovations created equal? Evaluating agricultural innovations by startups, large agribusinesses, and public research institutions in the United States." Agricultural Research Enhancement & Seed Funding Program, College of Agriculture, Auburn University. $10,000. (submitted on 7/9/2025)

16. Co-PI, "Advancing the Circular Polymer Economy through Multitiered Workforce Development in Polymer Metrology." with PI Edward Davis (Mechanical Engineering, Auburn), Co-PIs Yucheng Peng (Forestry & Wildlife Sciences, Auburn), Bryan Beckingham (Chemical Engineering, Auburn), and Russell Mailen (Aerospace Engineering, Auburn). Training for Improving Plastics Circularity (TIPC) Grant Program, National Institute of Standards and Technology (NIST). $500,000. (submitted on 07/17/2023)

15. Co-PI, "Supplemental Funding Request for 'EFRI E3P: Supercritical Extraction for the Elimination of End-of-Life Plastics (SCE3P)'." (Involving High School Students in an Active NSF/EFRI Project). with PI Edward Davis (Mechanical Engineering, Auburn), Co-PIs Virgina Davis (Chemical Engineering, Auburn), Yucheng Peng (Forestry & Wildlife Sciences, Auburn), and Bryan Beckingham (Chemical Engineering, Auburn). Research Experience and Mentoring (REM) Program, NSF. $98,013. (submitted on 11/6/2023)

14. Co-PI, "Supplemental Funding Request for 'EFRI E3P: Supercritical Extraction for the Elimination of End-of-Life Plastics (SCE3P)'." (Involving High School Students in an Active NSF/EFRI Project). with PI Edward Davis (Mechanical Engineering, Auburn), Co-PIs Virgina Davis (Chemical Engineering, Auburn), Yucheng Peng (Forestry & Wildlife Sciences, Auburn), and Bryan Beckingham (Chemical Engineering, Auburn). Research Experience and Mentoring (REM) Program, NSF. $95,602. (submitted on 11/17/2021)

13. PI, "Mitigating Climate Change with the Conservation Reserve Program (CRP): The Role of Carbon Credits and CRP Re-Design," with Co-PIs Chaoqun Lu (Department of Ecology, Evolution, and Organismal Biology, Iowa State), Marshall McDaniel (Department of Agronomy, Iowa State), and Wendiam Sawadgo (Auburn U.). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. Award Number: 2022-67023-36383. $649,955. (submitted on 7/15/2021)

12. Participant, "AI in Agroecosystems: Big Data and Smart Technology-Driven Sustainable Production (Multistate Research Project S-1090)," with PI Won Suk Lee (Agricultural and Biological Engineering, University of Florida) and many other participants. 10/01/2021-09/30/2026. National Institute of Food and Agriculture, USDA. (submitted on 07/28/2021)

11. Senior Personnel, "Designing Agrivoltaics for Sustainably Intensifying Food and Energy Production," with PI Madhu Khanna (Department of Agricultural and Consumer Economics, UIUC) and Co-PIs Carl Bernacchi (USDA), Evan DeLucia (Department of Plant Biology, UIUC), Greg

Barron-Gafford (School of Geography and Development, U. of Arizona), Bruce Branham (Department of Crop Sciences, UIUC), Kaiyu Guan (Department of Natural Resources & Environmental Sciences, UIUC), Bin Peng (Department of Natural Resources & Environmental Sciences, UIUC), Alan Knapp (Department of Biology, Colorado State U.), Chad Lane (Department of Educational Psychology, UIUC), DK Lee (Department of Crop Sciences, UIUC), Nenad Miljkovic (Department of Mechanical Science and Engineering, UIUC), Nuria Gomez-Casanovas (Department of Plant Biology, UIUC), Iris Caldwell (Energy Resource Management, UI-Chicago), Samantha Lindgren (Education Policy, Organization and Leadership, UIUC), Dennis Bowman (Agriculture and Natural Resources, University of Illinois Extension, Urbana-Champaign), Jordan Macknick (National Renewable Energy Laboratory, Golden), and Ron Meyer (Agronomist, Colorado State University Extension). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. 9/15/2021-9/14/2025. $10 million. Grant number: 2021-68012-35898 (full proposal submitted on 4/1/2021, award abstract available at: Here).

10. Co-PI, "EFRI E3P: Supercritical Extraction for the Elimination of End-of-Life Plastics (SCE3P)." with PI Edward Davis (Mechanical Engineering, Auburn), Co-PIs Virgina Davis (Chemical Engineering, Auburn), Yucheng Peng (Forestry & Wildlife Sciences, Auburn), and Bryan Beckingham (Chemical Engineering, Auburn). Emerging Frontiers in Research and Innovation (EFRI) Program, NSF. 8/15/2021-8/14/2025. $1,980,029. Award number: 2132093. (submitted on 1/12/2021, award abstract available at: Here).

9. Co-PI, "INFEWS U.S.-China: Integrated Systems Modeling for Sustainable FEW Nexus under Multi-factor Global Changes: Innovative Comparison between the Yellow River and Mississippi River Basins," with PI Hanqin Tian (Auburn) and Co-PIs: Chaoqun Lu (Iowa State), Susan Pan (Auburn), Qiang Yu (Northwest Agriculture and Forestry U. (NWAFU) and Chinese Academy of Sciences), and Hao Feng, Jianqiang He, Bangbang Zhang (NWAFU); Xiaojun Wang and Anbang Peng (State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, Nanjing Hydraulic Research Institute (NHRI)). NSF/NSFC Joint Research on Environmental Sustainability Challenges (INFEWS: U.S.-China). 07/1/2019-6/30/2023. $500,000 for U.S.-based researchers from NSF and ¥2,998,600 for China-based researchers from NSFC in the team. Award number: 1903722. (submitted in 10/2018; award abstract available at: Here)

8. Co-PI, "Exploring plant-microbiome-environment interactions towards tailoring plant disease management," with PI Neha Potnis (Auburn, Entomology and Plant Pathology) and Co-PIs Edward Sikora (Auburn, Entomology and Plant Pathology), Di Tian (Auburn, Crop Soil and Environmental Sciences), and Karen Garrett (U. of Florida, Plant Pathology). Foundation for Food and Agriculture Research (FFAR), 2019 New Innovator in Food and Agriculture Research Award. $581,992.89 (FFAR funds and matching funds). (submitted in 04/2019).

7. PI, "'Bee' Productive and 'Bee' Safe: A Study of Apiculture Productivity and Apiculture Pilot Insurance Program," with Co-PI Brittney Goodrich (Department of Agricultural Economics and Rural Sociology, Auburn University). FY2019 AAES Award for Agricultural Research Enhancement, Exploration and Development (AAES-AgR-SEED) program, Alabama Agricultural Experiment Station, Auburn University. 10/1/2018-9/30/2020. $50,000. (submitted in 06/2018; proposal ranked top 1 among 24 submissions to the 2018 AAES-AgR-SEED program)

6. Co-PI, "Reducing Antibiotic Use in Catfish Aquaculture: A New Approach to Control Enteric Septicemia of Catfish (ESC) Using CRISP," with Yi Wang (PI, Biosystems Engineering), Co-PIs Cova Arias and Allen Davis (both of School of Fisheries, Aquaculture and Aquatic Sciences). All PIs are from Auburn University. FY2019 AAES Award for Interdisciplinary Research (AAES-AIR) program, Alabama Agricultural Experiment Station, Auburn University. 10/1/2018-9/30/2020. $140,000. (submitted in 06/2018)

5. PI, "Production Risk of Alabama Agriculture: Its Determinants and the Effects of Risk Management Tools on Farmers' Production Efficiency and Welfare," with Co-PIs Emir Malikov, Denis Nadolnyak, and Max Runge, all in Department of Agricultural Economics and Rural Sociology, Auburn University. Production Agriculture Research Funding Program, Alabama Agricultural Experiment Station, Auburn University. 5/1/2017-4/30/2019. $35,000. (submitted in 02/2017)

4. Co-PI, "Understanding and Advancing Agroclimate Forecasting for Decision Making," with Di Tian (PI, Crop, Soil, and Environmental Sciences, Auburn University), and Co-PIs: William D. Batchelor (Biosystems Engineering, Auburn University), Hanqin Tian (School of Forestry and Wildlife Sciences, Auburn University), and Senthold Asseng (Agricultural and Biological Engineering, University of Florida). Intramural Grants Program, Auburn University. 5/1/2017-4/30/2019. $40,000. (submitted in 12/2016)

3. PI, "Incentivizing Feedstock Supply for the Bioeconomy: Implications for Ecosystem Services and Policy Design" with Madhu Khanna (Co-PI) and Evan DeLucia (Co-PI), Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $499,886. 05/01/2017 - 4/30/2020. Award number: 2017-67019-26283. (submitted in 07/2016; proposal ranked top 1 among 23 submissions to the same priority area)

2. Co-PI, "Establishing and Promoting Regional and Farm-Specific Brands for Specialty Crops in Alabama" with Deacue Fields (PI), Loka Ashwood (Co-PI), and Joe Kemble (Co-PI), USDA Specialty Crop Block Grant. $25,000. 01/02/2017 to 5/31/2018. (submitted in 05/2016)

1. Co-PI, "Risk Mitigation Strategies to Induce Participation in the Advanced Biofuel Industry by Small/Medium-Sized Farmers: Effectiveness and Implications for Policy Design," with Madhu Khanna (PI) and Nicholas Paulson (Co-PI), Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $495,000. Award number: 2014-68006-21872. 04/01/2014 - 03/31/2017. (submitted in 05/2013)

Unfunded

40. Co-PI, "The unprecedented footprint of digital infrastructure and strategies for Alabamians." with Li An et al. NSF. (whitepaper submitted on 5/26/2026)

39. PI, "Exploring Complementarity and Substitution between Public and Private R&D by Examining the Origins and Exits of Startups in U.S. Agricultural Innovation." with Gregory Graff. Economic Research on the Returns to R&D Investment, Sloan Foundation. $282,598. (LOI submitted on 4/30/2026)

38. Co-PI, "BioCAMP: A transdisciplinary biorefinery hub for circular agriculture, new markets, and rural prosperity." with PI Hossein Jahromi and Co-PIs Sushil Adhikari, Jonas Baltrusaitis, Jeremiah Davis, Rajan Ghimire, Hassan Khodaei, Deepak Kumar, Kathy Lawrence, Wendiam Sawadgo, Obste Therasme, Nam Tran, Brian Via, Simerjeet Virk, and Chang Geun Yoo. Agriculture and Food Research Initiative - Strengthening Agricultural Systems, USDA. $10 million. (LOI submitted on 2/26/2026, full proposal submitted on 3/26/2026)

37. PI, "PARTNERSHIP: The Roles of Startups, Corporations, and Public Institutions in U.S. Agricultural Innovation." with Co-PIs Gregory Graff (Colorado State U.), Diane Charlton (Montana State U.), and Jiaqi Wang (Computer Science and Software Engineering, Auburn). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $800,000. (submitted on 10/2/2025)

36. Co-PI, "Applying Large Language Models to Agricultural Policy Analysis: From Interpretation to Impact Evaluation." with PI Xiaodong Du and Co-PIs Junjie Hu and Paul Mitchell (all at U. of

Wisconsin). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $650,000. (submitted on 10/2/2025)

35. Co-PI, "Water and Economic Tradeoffs of Fuels (WET-FUELS): Understanding Impacts of Ethanol, Biodiesel, and SAF on Water Resources." with PI Jayash Paudel and Co-PI Qihong Liu (all at U. of Oklahoma). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $649,913. (submitted on 10/16/2025)

34. PI, "The Impact of Cover Cropping on Crop Yield Resilience to Extreme Weather Events." with Co-PIs Sunjae Won (Ag Econ, Auburn) and Emir Malikov (Econ, U. of Nevada, Las Vegas). Environmental Social Sciences, Stanford University. $81,913. (submitted on 9/9/2025)

33. Co-PI, "Complex Dynamics of Biofuels, Crops, and GHG Emissions under Climatic and Human Influences." with PI Li An (Forestry, Auburn) and other Co-PIs. NSF EPSCoR Pre-proposal, NSF. (submitted October 10, 2024)

32. Co-PI, "Understanding Crop-Weed Competition and Pest Pressure Under Agrivoltaics for Collocating Sustainable Food and Renewable Energy Production." with PI Aniruddha Maity (Weed Science, Auburn), and Co-PIs Chandana Mitra (Geosciences, Auburn), Edwward Sikora (Extension Specialist, Entomology and Plant Pathology, Auburn), and Paulo Sergio Gimenez Cremonez (Entomology, Auburn). 2025 Southern Research & Education Pre-proposal (Research), the Sustainable Agriculture Research and Education (SARE) program. $400,000. (submitted on June 6, 2024)

31. Co-PI, "EPA Community Change Grant: Bringing Light to Union Springs and the Black Belt Through Community Engagement and Training on Agrivoltaic Systems." with PI Alvaro Sanz-Saez (Crop, Soil, and Environmental Sciences, Auburn) and many other Co-PIs from multiple institutions. Inflation Reduction Act Community Change Grants Program, USEPA. $20 million. (proposal discontinued after four months of preparation).

30. Co-PI, "Using Biomass-Derived Terpenes and Natural Products For 3D Printing Of Self-Healing Materials." with PI Andrew Weems (Ohio University) and Co-PIs Bryan Beckingham (Chemical Engineering, Auburn) and Lauren Beckingham (Civil and Environmental Engineering, Auburn). Agriculture and Food Research Initiative, USDA. $650,000. (submitted on 10/5/2023)

29. PI, "PARTNERSHIP: Enhancing Ecosystem Services By Designing Specialty-Crop Agrivoltaic Systems." with Co-PIs Bijesh Mishra (Agricultural Economics and Rural Sociology, Auburn), Yucheng Feng (Crop, Soil and Environmental Sciences, Auburn), Alvaro Sanz-Saez (Crop, Soil and Environmental Sciences, Auburn), Andre da Silva (Crop, Soil and Environmental Sciences, Auburn), Dennis Brothers (Agricultural Economics and Rural Sociology, Auburn), Jack Osborne (Grenergy USA), John Peters (Grenergy USA), and Gamal El Afandi (Environmental Sciences, Tuskegee University). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $900,000. (submitted on 9/14/2023)

28. Co-PI, "Developing and validating a science-informed climate adaptation strategy to address water quality and greenhouse gas emission goals in the Southeastern United States." with PI Rishi Prasad (Crop, Soil & Environmental Sciences, Auburn) and many Co-PIs. Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (LOI submitted on 4/14/2023)

27. Co-PI, "Using Biomass-Derived Terpenes and Natural Products For 3D Printing Of Self-Healing Materials." with PI Andrew Weems (Ohio University) and Co-PIs Bryan Beckingham (Chemical Engineering, Auburn) and Lauren Beckingham (Civil and Environmental Engineering, Auburn). Agriculture and Food Research Initiative, USDA. $649,994. (submitted on 9/29/2022).

26. Co-PI, "PV Tracking/Sizing and Crop Design for Maximum Value Return in Southeast Utility-Scale Agrivoltaics." with PI Jack Osborne (Sofos Harbert Renewable Energy (SHRE)), and Co-PIs Elio Orta (SHRE), John Peters (SHRE), Michael Sykes (SHRE), Michael Green (SHRE), Alvaro Sanz-Saez (Crop, Soil & Environmental Sciences, Auburn), Dennis Brothers (Agricultural Economics & Rural Sociology, Auburn), Chandana Mitra (Geosciences, Auburn), and Andre da Silva (Horticulture, Auburn). Foundational Agrivoltaic Research for Megawatt Scale (FARMS) grant program, Energy Efficiency and Renewable Energy (EERE) Solar Energy Technologies Office (SETO), DOE. $3,901,144. (submitted on 9/9/2022).

25. Co-PI, "A Systems Approach to Sustainable Use of Poultry Litter." with PI Ken Macklin (Poultry Science, Auburn) and Co-PIs Kristin Woods (Alabama Cooperative Extension System), Dianna Bourassa (Poultry Science, Auburn), Eve Brantley (Crop, Soil & Environmental Sciences, Auburn), Rishi Prasad (Crop, Soil & Environmental Sciences, Auburn), Christopher Clemons (Agriscience Education, Auburn), Leanne Dillard (Animal Science, Auburn), Yucheng Feng (Crop, Soil, & Environmental Sciences, Auburn), Jasmeet Lamba (Biosystems Engineering, Auburn), Ayanava Majumdar (Entomology & Plant Pathology, Auburn), Kim Mullenix (Animal Sciences, Auburn), Stuart Price (Pathobiology, Auburn), Camila Rodrigues (Horticulture, Auburn), Kent Stanford (Crop, Soil & Environmental Sciences, Auburn), Jessica Starkey (Poultry Science, Auburn), Di Tian (Crop, Soil & Environmental Sciences, Auburn), Juan Silva (Food Science, Nutrition & Health Promotion, Mississippi State), Chris Gunter (Horticultural Science, North Carolina State), Aaron S. Kiess (Poultry Science, North Carolina State), Claudia Dunkley (Poultry Science, University of Georgia), Laurel Dunn (Food Science and Technology, University of Georgia), Mike Daniels (Crop, Soil & Environmental Sciences, University of Arkansas), Kristen Gibson (Food Science, University of Arkansas), Catherine W. Shoulders (Agriculture Education Communications and Technology, University of Arkansas), Robert Strong (Agriculture Leadership, Education and Communications, Texas A&M University), Ardeshir Adeli (Genetics and Sustainable Agriculture Research, USDA-ARS). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (full proposal submitted on 7/28/2022).

24. PI, "Incentivizing Adoption of 2nd Generation Bioenergy Crops by Small/Medium-Sized Farms: Information Nudges, Crop Insurance, and Contracts," with Co-PIs Rodolfo Nayga Jr. (Texas A&M), Madhu Khanna (U. of Illinois), and Joel Cuffey (Auburn U.). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $649,969. (submitted on 6/24/2021)

23. Co-PI, "Utilizing Coal Ash Wastes in Resins and Filaments for Improved Additive Manufacturing Materials," with PI Bryan Beckingham (Chemical Engineering, Auburn) and Co-PI Lauren Beckingham (Civil and Environmental Engineering, Auburn). U.S. Department of Energy. $1,249,192. (submitted on 6/1/2021)

22. Co-PI, "BD INSPIRE: Biomass Derivatives technology to Improve Nationwide Sustainable Productivity in Rural Economies," with PI Alan Allgeier (Chemical and Petroleum Engineering, U. of Kansas (KU)); Co-PIs at KU: Thomas Binder (Center for Environmentally Beneficial Catalysis), Mark Shiflett (Chemical & Petroleum Engineering), Laurence R. Weatherley (Chemical & Petroleum Engineering), Bala Subramaniam (Chemical & Petroleum Engineering), Juan J. Bravo-Suarez (Chemical & Petroleum Engineering), Kevin C Leonard (Chemical & Petroleum Engineering), Aaron Scurto (Chemical & Petroleum Engineering), Gibum Kwon (Mechanical Engineering); Co-PIs at other institutions: Yonghui Li (Grain Science and Industry, Kansas State), Yi Wang (Biosystems Engineering, Auburn), David R. Nielsen (School for Engineering of Matter, Transport and Energy, Arizona State), Andrew Magenau (Material Science and Engineering, Drexel U.), Jeffrey McFarlane (Chemistry and Biochemistry, Fort Lewis College), Ron Hector (National Center for Agricultural Utilization Research, USDA), Chris Skory (ARS, USDA), Derek Butler

(Scientist III, ADM), and Ortwin Ertl (CEO, Annikki GmbH). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (full proposal submitted on 4/1/2021).

21. Co-PI, "A transdisciplinary approach to secure the safety of the food supply system while protecting the environment," with PI Ken Macklin (Poultry Science, Auburn) and Co-PIs Kristin Woods (Alabama Cooperative Extension System/ Produce Safety Alliance, Auburn University/ Cornell University), Christopher Clemons (Agriscience Education, Auburn), Rishi Prasad (Crop, Soil, and Environmental Sciences, Auburn), Yucheng Feng (Crop, Soil, & Environmental Sciences, Auburn), Stuart Price (Pathobiology, Auburn), Daniel Wells (Horticultural Science, Auburn), Tung-Shi Huang (Poultry Science, Auburn), Joe Kemble (Horticulture, Auburn), Soren Rodning (Animal Sciences, Auburn), Ayanava Majumdar (Entomology and Plant Pathology, Auburn), Dianna Bourassa (Poultry Science, Auburn), Jasmeet Lamba (Biosystems Engineering), Aaron S. Kiess (Poultry Science, Mississippi State), Juan Silva (Food Science, Nutrition, and Health Promotion, Mississippi State), Chris Gunter (Horticultural Science, North Carolina State), Brian Fairchild (Poultry Science, University of Georgia), and Kristen Gibson (Food Science, University of Arkansas). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (full proposal submitted on 4/1/2021)

20. Co-PI. "A New Measure of Information Value of U.S. Export Sales Reports and Examining the Existence of Crop Commodity Market Manipulations", with PI Wenying Li (Agricultural Economics and Rural Sociology, Auburn U.) and Co-PI Paul Patterson (Dean of College of Agriculture, Auburn U.). USDA Foreign Agricultural Service (FAS) Cooperative. $75,000. (submitted in June 2021).

19. Co-PI. "Development of food service paperboards with enhanced greaseproof property and recyclability," with PI Brian Via (Forestry & Wildlife Sciences, Auburn), and Co-PIs: Yucheng Peng (Forestry & Wildlife Sciences, Auburn), Soledad Peresin (Forestry & Wildlife Sciences, Auburn), Ronalds Gonzalez (Forest Biomaterials, NC State). 2020 Southeastern Sun Grant Regional Grants (2021-2024). 02/01/2021-01/31/2024. $337,397. (submitted on 10/1/2020)

18. Co-PI, "Managing the Climate-Land-Water Nexus towards a climate-resilient sustainable agricultural system in the Southeastern US: A systems approach to enhancing soil health and water resource," with PI Hanqin Tian (School of Forestry and Wildlife Sciences (SFWS), Auburn) and Co-PIs: Latif Kalin (SFWS, Auburn), Shufen Pan (SFWS, Auburn), Becky Barlow (SFWS, Auburn), Di Tian (Department of Crop, Soil and Environmental Sciences, Auburn), Karen McNeal (Department of Geosciences, Auburn), John King (Department of Forestry and Environmental Resources, NC State), Wei Ren (Department of Plant and Soil Sciences, U. of Kentucky), Jia Yang (Department of Forestry, Mississippi State), Clyde Fraisse (Dept. of Agricultural and Biological Engineering, U. of Florida), Pam Knox (Dept. of Crop and Soil Sciences, U. of Georgia), Dafeng Hui (Dept. of Biological Sciences, Tennessee State), Wenghong Li (Nicholas School of the Environment, Duke U.), Steven McNulty (USDA Southeastern Climate Hub), Ge Sun (Eastern Forest Environmental Threat Assessment Center, USDA Forest Service), and Stephen A. Prior (USDA ARS National Soil Dynamic Laboratory). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (LOI submitted on 1/7/2021).

17. Co-PI. "Development of food service paperboards with enhanced greaseproof property and recyclability," with PI Yucheng Peng (School of Forestry and Wildlife Sciences, Auburn) and Co-PIs: Zhihua Jiang (Department of Chemical Engineering, Auburn), Soledad Peresin (School of Forestry and Wildlife Sciences, Auburn), Yi Wang (Biosystems Engineering, Auburn), and Brian Via (School of Forestry and Wildlife Sciences, Auburn). FY2021 AAES Award for Interdisciplinary Research (AAES-AIR) program, Alabama Agricultural Experiment Station, Auburn University. 10/1/2020-9/30/2022. $149,480. (submitted in 05/2020)

16. SP, "Transforming Food and Solar Energy Production Using Agrivoltaics," with PI Madhu Khanna (Department of Agricultural and Consumer Economics, UIUC) and Co-PIs or SPs Carl Bernacchi (USDA), Evan DeLucia (Department of Plant Biology, UIUC), Greg Barron-Gafford (School of Geography and Development, U. of Arizona), Bruce Branham (Department of Crop Sciences, UIUC), Kaiyu Guan (Department of Natural Resources & Environmental Sciences, UIUC), Bin Peng (Department of Natural Resources & Environmental Sciences, UIUC), Alan Knapp (Department of Biology, Colorado State U.), Chad Lane (Department of Educational Psychology, UIUC), Nenad Miljkovic (Department of Mechanical Science and Engineering, UIUC), Nuria Gomez-Casanovas (Department of Plant Biology, UIUC), Steve John (Agricultural Watershed Institute, Decatur, Illinois). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (LOI submitted on 06/03/2019, full proposal submission invited on 06/27/2019, full proposal submitted on 09/26/2019).

15. Co-PI, "A transdisciplinary approach to secure the safety of the food supply system while protecting the environment," with PI Ken Macklin (Poultry Science, Auburn) and Co-PIs Kristin Woods (Alabama Cooperative Extension System/ Produce Safety Alliance, Auburn University/ Cornell University), Christopher Clemons (Agriscience Education, Auburn), Rishi Prasad (Crop, Soil, and Environmental Sciences, Auburn), Yucheng Feng (Crop, Soil, & Environmental Sciences, Auburn), Stuart Price (Pathobiology, Auburn), Daniel Wells (Horticultural Science, Auburn), Tung-Shi Huang (Poultry Science, Auburn), Joe Kemble (Horticulture, Auburn), Soren Rodning (Animal Sciences, Auburn), Ayanava Majumdar (Entomology and Plant Pathology, Auburn), Dianna Bourassa (Poultry Science, Auburn), Jasmeet Lamba (Biosystems Engineering), Aaron S. Kiess (Poultry Science, Mississippi State), Juan Silva (Food Science, Nutrition, and Health Promotion, Mississippi State), Chris Gunter (Horticultural Science, North Carolina State), Brian Fairchild (Poultry Science, University of Georgia), and Kristen Gibson (Food Science, University of Arkansas). Agriculture and Food Research Initiative - Sustainable Agricultural Systems, USDA. $10 million. (LOI submitted on 06/04/2019, full proposal submission invited on 06/27/2019, full proposal submitted on 09/26/2019, proposal declined for review on 10/02/2019 due to 3 minutes and 54 seconds later than deadline).

14. Co-PI, "Developing Model, Multi-disciplinary Efforts to Combat Food Insecurity on College Campuses," with PI Amit Morey (Poultry Science) and Co-PIs Glenn Loughridge (Campus Dining), Shashank Rao (Department of Systems and Technology), Drew Fruge (Nutrition, Dietetics, & Hospitality Management), Alicia Powers (Nutrition, Dietetics, & Hospitality Management), Joel Cuffey (Agricultural Economics and Rural Sociology), all at Auburn. Foundation for Food and Agriculture Research (FFAR). $1,000,000 (FFAR funds and matching funds). (LOI submitted in 04/2019, full proposal submission invited on 06/13/2019, PI decided not to submit in 2019).

13. Co-PI, "A Pilot Unified Decision Support System for Cotton Target Spot Management," with Di Tian (PI, Crop, Soil, and Environmental Sciences, Auburn University), Co-PIs William Batchelor (Biosystems Engineering, Auburn University), Kira Bowen (Entomology and Plant Pathology, Auburn University), Austin Hagan (Entomology and Plant Pathology, Auburn University), Ian Small (Plant Pathology, University of Florida), and Clyde Fraisse (Agricultural and Biological Engineering, University of Florida). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $500,000. (submitted in 07/2018).

12. Co-PI, "CHESS Research Initiative for Sustainable Earth and Society (CHESS-RISES)," with PI Hanqin Tian (School of Forestry and Wildlife Sciences) and about 30 Co-PIs across ten colleges, all at Auburn. Presidential Awards for Interdisciplinary Research (PAIR), Tier III - High Impact Teams, Auburn University. $1.5 million for three years. (submitted in 03/2018)

11. Co-PI, "Integrating Big Data into Coupled Ecosystem and Economic Modelling to Assess Impact of Climate Variability on Crop Yield in Africa and Its Implications to U.S. Agricultural Econ-

omy," with PI Susan Pan (School of Forestry and Wildlife Sciences), Co-PIs Ryan Goodrich (Agricultural Economics and Rural Sociology), Bo Liu (Computer Science and Software Engineering), Yang Zhou (Computer Science and Software Engineering), Christopher Burton (Geosciences), all at Auburn University. Presidential Awards for Interdisciplinary Research (PAIR), Tier I - New Teams, Auburn University. $300,000 for three years. (submitted in 03/2018)

10. Co-I, "Sustainable Water Allocation for Food Production: Development of a Stakeholder Decision Support Process and Associated Models for Evaluation of Consequences of Water Management Alternatives," with PI William Batchelor (Biosystems Engineering, Auburn U.) and Co-PIs Elise Irwin (USGS and School of Fisheries, Aquaculture and Aquatic Sciences, Auburn University), Puneet Srivastava (Biosystems Engineering, Auburn U.), David Blersch (Biosystems Engineering, Auburn U.), Brenda Ortiz (Crop, Soil and Environmental Sciences, Auburn U.), Eve Brantley (Crop, Soil and Environmental Sciences, Auburn U.), Xing Fang (Civil Engineering, Auburn U), Ming-Kuo Lee (Geosciences, Auburn U.), Chris Anderson (Forestry and Wildlife Sciences, Auburn U), Stacey Blersch (Earth and Space Sciences, Columbus State U.), Mike Colvin (Wildlife, Fisheries and Aquaculture, Mississippi State U.), and Gregory Kiker (Agriculture and Biological Engineering, U. of Florida). USDA/AFRI: Water for Food Production Systems. Program Area Priority Code: A9101. $5,199,998. (submitted in 08/2017).

9. Collaborator/consultant, "Linking Physiology and Hydrology for Water-Resilient Landscapes that Enhance and Sustain Agricultural Production in the US Corn Belt," with PI Evan H. DeLucia (Department of Plant Biology and Institute for Sustainability, Energy, and Environment, U. of Illinois); Co-PIs Raymond Arritt (Agronomy, Iowa State), Carl Bernacchi (Plant Biology, U. of Illinois), Ximing Cai (Civil and Environmental Engineering, U. of Illinois), Adam Davis (USDA ARS and Crop Sciences, U. of Illinois), Nuria Gomez-Casanovas (Sustainability, Energy, and Environment, U. of Illinois), Kaiyu Guan (Natural Resources and Environmental Sciences, U. of Illinois), Carol Hays (Prairie Rivers Network), Nick Jordan (Agronomy and Plant Genetics, U. of Minnesota), Madhu Khanna (Agricultural and Consumer Economics, U. of Illinois), David Mulla (Soil, Water, and Climate, University of Minnesota), Tracy Twine (Soil, Water, and Climate, University of Minnesota), Andy VanLoocke (Agronomy, Iowa State). USDA/AFRI: Water for Food Production Systems. Program Area Priority Code: A9101. $5 million. (submitted in 08/2017).

8. Co-PI, "Understanding and quantifying the nexus of food-energy-water systems: optimizing resource use toward sustainable agriculture in the Mississippi River Basin and the Yellow River Basin," with PI Hanqin Tian (Auburn) and Co-PIs: Chaoqun Lu (Iowa State), Jia Yang (Auburn), Qiang Yu (Chinese Academy of Sciences), and Hao Feng, Jianqiang He (NWAFU); Changhe Lu, Huimin Yan (Institute of Geographical and Natural Resources Research (IGNRR),Chinese Academy of Sciences), and Xiaojun Wang and Anbang Peng (State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering, Nanjing Hydraulic Research Institute (NHRI)). NSF ENG/CBET Environmental Sustainability Program (7643) on NSF/NSFC Joint Research on Environmental Sustainability Challenges (INFEWS: U.S. - China). $499,817 for U.S.-based researchers and ¥3,000,000 for China-based researchers in the team. (submitted in 10/2017).

7. Co-PI, "Biogas Derived Single Cell Protein as an Aquaculture Feed," with PI Jin Wang (Chemical Engineering, Auburn University); Co-PIs Qinghua He (Chemical Engineering, Auburn University), and Brendan Higgins (Biosystems Engineering, Auburn University). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $500,000. (submitted in 06/2017).

6. Co-PI, "A Decision Support System for Target Spot Disease in the Southeastern Cotton Belt," with PI Di Tian (Crop, Soil, and Environmental Sciences, Auburn University), Co-PIs William Batchelor (Biosystems Engineering, Auburn University), Kira Bowen (Entomology and Plant Pathology, Auburn University), Austin Hagan (Entomology and Plant Pathology, Auburn University), Ian

Small (Plant Pathology, University of Florida), and Eric Wood (Civil and Environmental Engineering, Princeton University). Agriculture and Food Research Initiative: Foundational Program, National Institute of Food and Agriculture, USDA. $500,000. (submitted in 06/2017).

5. Co-PI, "INFEWS/T3: W2FEW: A Next-generation Scalable and Sustainable Waste Conversion Technology," with PI Jin Wang (Chemical Engineering, Auburn University); Co-PIs Qinghua He (Chemical Engineering, Auburn University), Brendan Higgins (Biosystems Engineering, Auburn University), Mary Lidstrom (Microbiology, University of Washington at Seattle); and Senior Investigators Gene Simpson (Agricultural Economics and Rural Sociology, Auburn University), Lee Schulz (Economics, Iowa State University). National Science Foundation, Innovations at the Nexus of Food, Energy and Water Systems. 2017-2021. $1,691,855 (among which $199,952 for social economic analysis led by Co-PI Miao) (submitted in 03/2017).

4. Co-PI, "Global Changes and Agriculture Sustainability in Monsoon Asia," with Hanqin Tian (PI, Auburn University); Co-PIs at Auburn University: Shufen Pan, Sanjiv Kumar, William Batchelor, Di Tian, Ming-Kuo Lee, Kelly Alley, Kai Chang, Bo Liu; and Co-PIs at other institutions: John Reilly (MIT), Jerry Melillo (MBL), Karen Seto (Yale), Z. Ouyang (Chinese Academy of Sciences), Z. Li (China Agri. Univ.), J. Huang (Zhejiang Univ.), VK Dadhwal, P.R. Roy (India), J. Liu (UNEP); H. Virji (START), Akihiko Ito (Japan). National Science Foundation, Partnerships for International Research and Education. 2017-2021. $4 million. (submitted in 09/2016)

3. Senior Investigator, "REEU Site: Preparing Future Research and Extension Leaders for Biofuels and Bioproducts Production from Lignocellulosic Biomass" with Sushil Adhikari (PI) and many others, USDA-NIFA. 10/01/2016-9/31/2019. $299,738. (submitted in 03/2016)

2. Co-PI, "Effects of Ethanol Refineries on Land Use Change and Greenhouse Gas Emissions in U.S. Prairie Pothole Region," with David A. Hennessy (PI) and Hongli Feng (Co-PI), Agriculture and Food Research Initiative Competitive Grants Program: Sustainable Bioenergy, National Institute of Food and Agriculture, USDA. (submitted in 10/2011)

1. Co-PI, "Effects of U.S. Ethanol Refineries on Local Land-use and on Greenhouse Gas Emissions" ($30,000), with David A. Hennessy (PI) and Hongli Feng (Co-PI), Biobased Industry Center Grants Program, Biobased Industry Center at Iowa State University. (submitted in 02/2011)

Grants Received by Students under My Mentorship

2. Bhandari, Nabin. "Spatio-temporal variation of crop loss causes and determinants of participation in Federal Crop Insurance." $5,000. Professional Enhancement for Emerging Researchers (PEER) Grant, Alabama Agriculture Experimental Station, Auburn University. FY 2026.

1. Zaman, Azaz. "Trade Policy Shocks: Quantifying Impacts and Strategic Navigation for US Agribusiness." $4,991.37. Professional Enhancement for Emerging Researchers (PEER) Grant, Alabama Agriculture Experimental Station, Auburn University. FY 2026.

CONSULTING WORK

11/2021 - 04/2023	U.S. Environmental Protection Agency (USEPA) via Research Triangle Institute (RTI International). Project: "Technical Support for the Triennial Report to Congress on Biofuels: Phase 3 (RtC3 and RtC4)."

MEDIA COVERAGE

24. "Miao to study agricultural innovations with first mid-career grant." Covered by Auburn Today, August 18, 2026.

23. "Food Waste, Date Labels, and Risk Preferences: An Experimental Exploration," Covered by World Food Policy Center, Duke University, March 2025.

22. "Agricultural economists' simulator to weigh in on U.S. Conservation Reserve Program," Covered by College of Agriculture Newsroom, Auburn News , July 23, 2024.

21. "NSF, NIST Grants Boost Auburn Engineering's Prominence In Polymer Sustainability" Covered by PlasticsNet, April 26, 2024.

20. "Neonic Nation: Is Widespread Pesticide Use Connected to Grassland Bird Declines?" Covered by Living Birds 41(3), June 24, 2022.

19. "Auburn University receives grant to research multilayer plastics." Covered by: Recycling Today, October 10, 2021.

18. "'Agrivoltaic' research combines solar energy, food production." Covered by: The Season, October 6, 2021.

17. "Maladaptation of U.S. Corn and Soybeans to a Changing Climate." Scientific Reports. doi: https://doi.org/10.1038/s41598-021-91192-5. Covered by: Phys.org. Also featured in "Member in the News" sponsored by Agricultural and Applied Economics Association on August 16, 2021. Available at: http://blog.aaea.org/.

16. "Neonicotinoids and Decline in Bird Biodiversity in the United States." Nature Sustainability. doi: https://doi.org/10.1038/s41893-020-0582-x. Covered by: The Guardian, Scimex, Gizmodo, Trends Wide, BirdWatching, Audubon. A Podcast about the research can be found here. Also featured in "Member in the News" sponsored by Agricultural and Applied Economics Association on August 24, 2020. Available at: http://blog.aaea.org/.

15. "Tradeoff between Short-Term and Long-Term Risk Management Tools." Farms.com News, June 25, 2020. Also featured in "Member in the News" sponsored by Agricultural and Applied Economics Association on July 6, 2020. Available at: http://blog.aaea.org/.

14. "Survey Endorses Local Branding for Alabama Specialty Crops." Featured in "Member in the News" sponsored by Agricultural and Applied Economics Association on June 22, 2020. Available at: http://blog.aaea.org/.

13. "Faculty Achievement Highlights" in Auburn Research magazine, Spring 2020 Issue. Available at: http://ocm.auburn.edu/research-magazine/2020-spring/.

12. "Auburn's Department of Agricultural Economics and Rural Sociology conducts integrated research to look at the human side of science." Office of Communications & Marketing News Articles, Auburn University. December 6, 2019.

11. "AU faculty members receive major NSF grant." Opelika-Auburn News, Sunday, October 27, 2019.

10. "Auburn faculty members receive major NSF funding to study the sustainability of two mother river basins." Office of Communications & Marketing News Articles, Auburn University. October 24, 2019.

9. "Integrated research looks at human side of science." The Season, Auburn University College of Agriculture Magazine, October 8, 2019.

8. "Wind turbine design and placement can mitigate negative effect on birds." Ohio's Country Journal (July 26, 2019) and University of Illinois College of Agricultural, Consumer and Environmental Sciences News (July 18, 2019). Also featured in "Member in the News" sponsored by Agricultural and Applied Economics Association on August 5, 2019.

7. "Survey endorses local branding for Alabama specialty crops." GrowingAmerica, July 1, 2019; Opelika-Auburn News, Wednesday, July 10, 2019. Also covered by WLTZ NBC 38 and CW GABAMA on August 29, 2019.

6. "Survey endorses local branding for Alabama specialty crops." Office of Communications & Marketing News Articles, Auburn University. June 28, 2019.

5. "Incentivizing Feedstock Supply for the Bioeconomy." National Institute of Food and Agriculture (NIFA) of USDA, NIFA Impacts. April 12, 2019.

4. "Empirical Evidence Suggests Negligible Indirect Land Use Effect of Corn Ethanol in the U.S." Agricultural & Applied Economics Association Press Releases. January 28, 2019.

3. "Corn ethanol production has minimal effect on cropland use, study shows." Illinois College of Agricultural, Consumer and Environmental Sciences News. December 20, 2018.

2. "Auburn research to help expand bioenergy markets." Office of Communications & Marketing News Articles, Auburn University. February 9, 2018.

1. "Study shows how crop prices and climate variables affect yield and acreage." Phys.org and University of Illinois College of Agricultural, Consumer and Environmental Sciences News. November 17, 2015.

PRESENTATIONS

88. "The Double-Edged 'Operation National Sword': How Did China's Waste Import Ban Affect Recycling Innovation?" Allied Social Science Associations (ASSA) Annual Meeting, January 3-5, 2027, Washington, D.C. (poster presentation, scheduled)

87. "Biofuel and ILUC: Evidence from corn and soybean markets in the US." Biofuel Land Use Change (BLU-C) Webinar. Institute of Transportation Studies, University of California, Davis. Tuesday, December 15, 2026. 11:00 AM to 12:00 PM Central Time. Online. (invited, scheduled)

86. "Valuing Agrivoltaics: Evidence from Farmer and Solar Developer Surveys." NC1034 (Impact Analyses and Decision Strategies for Agricultural Research) 2026 Annual Meeting and Research Conference, March 27-28, 2026, Texas A&M-Fort Worth, Fort Worth, TX.

85. "Effects of Heat Stress across the U.S. Farm Profitability Distribution." Department of Economics, University of Oklahoma, March 9, 2026, Norman, OK.

84. "Three Early-Stage Projects: Recycling Innovation, a 'Three-Body Problem' in Ag Innovation, and the Effects of Cover Cropping on Yield Resilience." Department of Agricultural Economics and Rural Sociology, Auburn University, October 22, 2025, Auburn, AL.

83. "The Double-Edged 'Operation National Sword': How Did China's Waste Import Ban Affect Recycling Innovation?" Association of Environmental and Resource Economists (AERE) 2025 Summer Conference, May 28-30, 2025, Santa Ana Pueblo, NM.

82. "Mitigating Climate Change with the Conservation Reserve Program (CRP): The Role of Carbon Credits and CRP Re-Design." Workshop on NIFA's Agricultural Economics and Rural Communities Awarded Projects. July 31, 2024, New Orleans, LA.

81. "Mitigating Climate Change with the Conservation Reserve Program (CRP): The Role of Carbon Credits and CRP Redesign." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 28-30, 2024, New Orleans, LA.

80. "Socio-Economic Systems across Value Chains Workshop." co-organized by the American Society of Agricultural and Biological Engineers (ASABE) and the Council on Feed, Agriculture, and Resource Economics (C-FARE). April 4-6, 2024, Chicago, IL. (invited, group discussion on circular economy, served as scribe)

79. "Multi-dimensional Role of Agricultural Innovation: A Bibliometric Analysis." NC1034 (Impact Analyses and Decision Strategies for Agricultural Research) 2024 Annual Meeting and Research Conference, March 29-30, 2024, Colorado State University, Fort Collins, CO.

78. "Adapting to Change: Geography of Climate Change Adaptation in U.S. Agriculture." Department of Agriculture Economics, Purdue University. March 29, 2024. West Lafayette, IN. (invited)

77. "Adapting to Change: Geography of Climate Change Adaptation in U.S. Agriculture." Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign. January 18, 2024. Urbana-Champaign, IL. (invited)

76. "Meeting Editors of Applied Economic Perspectives and Policy (AEPP) and of Choices." Southern Agricultural Economics Association (SAEA) Annual Meetings, February 3-6, 2024, Atlanta, GA.

75. "How to Thrive in Your Graduate Program." The 2023 Department International Agriculture Convocation. Department of Agricultural Economics and Rural Sociology, Auburn University. August 23, 2023, Auburn, AL. (keynote)

74. "The Political Economy of Agricultural Innovation: A Review." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 23-25, 2023, Washington, D.C. (invited)

73. "The Impact of the Renewable Fuel Standard (RFS) Program on U.S. Soybean Acreage and Total Crop Acreage." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 23-25, 2023, Washington, D.C.

72. "Mitigating Climate Change with the Conservation Reserve Program (CRP): The Role of Carbon Credits and CRP Re-Design." Workshop on NIFA's Agricultural Economics and Rural Communities Awarded Projects. July 22, 2023, Washington, D.C.

71. "Geography of Climate Change Adaptation in U.S. Agriculture." Association of Environmental and Resource Economists (AERE) 2023 Summer Conference, May 31-June 2, 2023, Portland, ME.

70. "Geography of Climate Change Adaptation in U.S. Agriculture." Department of Agricultural Economics, Texas A&M University, April 24, 2023, College Station, TX. (invited)

69. "Geography of Climate Change Adaptation in U.S. Agriculture." NC1034 (Impact Analyses and Decision Strategies for Agricultural Research) 2023 Annual Meeting and Research Conference, March 30-31, 2023, Arlington, VA.

68. "The Impact of Federal Crop Insurance Program on Fertilizer Use in U.S. Agriculture." SCC-76 (Economics and Management of Risk in Agriculture and Natural Resources) 2023 Annual Meeting, March 16-18, 2023, Kansas City, MO.

67. "Mitigating Climate Change with the Conservation Reserve Program in the United States: The Role of Program Redesign." Allied Social Science Associations (ASSA) Annual Meeting, January 6-8, 2023, New Orleans, Louisiana. (invited)

66. "Local Adaptation to a Warming Climate in U.S. Agriculture." Department of Agricultural and Applied Economics (AAE), University of Wisconsin-Madison, December 9, 2022, Madison, WI. (invited)

65. "Adaptation to Climate Change of US Agriculture: Technology and Policy." Center on Food Security and the Environment, Stanford University. June 1, 2022, Stanford, CA. (invited)

64. "Local Adaptation and Maladaptation to Climate Change of US Agriculture." Leo K. Simon Agriculture & Natural Resources Thursday Seminar Series, Department of Agricultural and Resource Economics, University of California, Berkeley. March 17, 2022, Berkeley, CA. (invited)

63. "Grassland Easement Acquisition: Conversion Hazard Rate, Additionality, and Spatial Spillover." Allied Social Science Associations (ASSA) Annual Meeting, January 7-9, 2022, Boston, MA. (invited)

62. "Ambiguity, Date Labels, and Food Waste." Allied Social Science Associations (ASSA) Annual Meeting, January 7-9, 2022, Boston, MA. (poster presentation)

61. "The Impact of Crop Insurance on Fertilizer Use in the United States." Biosystems Engineering Graduate Seminar, Auburn University, December 2, 2021, Auburn, AL. (invited)

60. "Ambiguity, Date Labels, and Food Waste." Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 1-3, 2021, Austin, Texas.

59. "Impact of changes in Title II of the 2018 Farm Bill on the Acreage and Environmental Benefits of Conservation Reserve Program." Program in Environmental and Resource Economics (pERE) Weekly Seminar, Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign. May 3, 2021. (invited)

58. "Ambiguity, Date Labels, and Food Waste." Applied Microeconomics Workshop, Department of Economics, Auburn University, April 21, 2021, Auburn, AL.

57. "Ambiguity, Date Labels, and Food Waste." Department of Agricultural Economics and Rural Sociology, Auburn University, March 29, 2021, Auburn, AL.

56. "Maladaptation of U.S. Corn and Soybean Yields to a Changing Climate." Auburn Research Faculty Symposium, January 29, 2021, Auburn, AL. (poster presentation)

55. "Time-Varying Adaptation of U.S. Corn and Soybean Yields to a Changing Climate." Applied Microeconomics Seminar, Department of Economics, Auburn University, November 4, 2020, Auburn, AL.

54. "Time-Varying Adaptation of U.S. Corn and Soybean Yields to a Changing Climate." Department of Agricultural Economics and Rural Sociology, Auburn University, October 26, 2020, Auburn, AL.

53. "Grassland Easement Acquisition: Conversion Hazard Rate, Additionality, and Spatial Spillover." The 2020 Annual Association of Environmental and Resource Economists (AERE) Summer Conference. June 4-5. Virtual conference (originally planned location: Hyatt Regency Miami, FL).

52. "Climate Change Effects on U.S. Agriculture: Distributional Heterogeneity, Technological Adaptability, and Spatial Spillovers." Department of Economics, Iowa State University, December 2, 2019, Ames, IA. (invited)

51. "Climate Change Effects on U.S. Agriculture: Distributional Heterogeneity, Technological Adaptability, and Spatial Spillovers." Department of Agricultural Economics and Rural Sociology, Auburn University, November 18, 2019, Auburn, AL.

50. "Climate Change Effects on U.S. Agriculture: Distributional Heterogeneity, Technological Adaptability, and Spatial Spillovers." Department of Agricultural, Environmental, and Development Economics, Ohio State University, October 17, 2019, Columbus, OH. (invited)

49. "Economics of Switchgrass as Feedstock for Livestock and Bioenergy." Alabama Grazing Academy, Perdido River Farms, September 20, 2019, Atmore, Alabama. (extension presentation)

48. "Climate, Insurance, and Innovation: the Case of U.S. Agriculture." Department of Agricultural and Applied Economics, University of Georgia, March 1, 2019, Athens, GA.

47. "Climate, Insurance, and Innovation: the Case of U.S. Agriculture." Emerging Scholar Invited Symposium, Southern Agricultural Economics Association (SAEA) Annual Meetings, February 2-5, 2019, Birmingham, AL.

46. "The Determinants of Conservation Reserve Program Acreage Supply in the United States." Applied Microeconomics Lunch Seminar, Department of Economics, Auburn University, November 28, 2018, Auburn, AL.

45. "Climate Change Effects on U.S. Agriculture: Distributional Heterogeneity, Technological Adaptability, and Spatial Spillovers." Auburn Research Faculty Symposium, October 23, 2018, Auburn, AL. (poster presentation)

44. "Nonparametric Estimates of the Climate Change Effects on U.S. Agriculture: Heterogeneity, Nonlinearities, Nonseparabilities and Spatial Spillovers." Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 5-7, 2018, Washington, D.C.

43. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." Department of Agricultural and Resource Economics, Colorado State University, January 22, 2018, Fort Collins, CO.

42. "Incentivizing Feedstock Supply for the Bioeconomy: Implications for Ecosystem Services and Policy Design." USDA-NIFA Bioeconomy Agroecosystem and Natural Resources Project Directors Meeting, October 20-23, 2017, Tampa, FL.

41. "Adopting Bio-Energy Crops: Does Farmers' Attitude toward Loss Matter?" (Poster Presentation). USDA-NIFA Bioeconomy Agroecosystem and Natural Resources Project Directors Meeting, October 20-23, 2017, Tampa, FL.

40. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." Department of Economics, Auburn University, September 15, 2017, Auburn, AL.

39. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." The 1st CHESS Workshop on Coupled Human-Earth System Solutions for Global Sustainability. Auburn University, August 14, 2017, Auburn, AL.

38. "Grassland Easement Evaluation and Acquisition: A Stochastic Dynamic Perspective." The 6th Annual Association of Environmental and Resource Economists (AERE) Summer Conference, May 31 - June 2, 2017, Pittsburgh, PA.

37. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." 2017 Annual Meeting of SCC-76 (Economics and Management of Risk in Agriculture and Natural Resources), March 30 - April 1, 2017, Pensacola Beach, FL.

36. "Incentivizing Feedstock Supply for the Bioeconomy: Implications for Ecosystem Services and Policy Design." International Center for Climate and Global Change Research, Auburn University, February 10, 2017, Auburn, AL.

35. "Grassland Easement Evaluation and Acquisition: an Integrated Framework." Southern Agricultural Economics Association (SAEA) Annual Meetings, February 4-7, 2017, Mobile, AL.

34. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." The 74th Professional Agricultural Workers Conference, Tuskegee University, December 6, 2016, Tuskegee, Alabama.

33. "Grassland Easement Evaluation and Acquisition: A Stochastic Dynamic Perspective." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 31- August 2, 2016, Boston, MA.

32. "Crop Yield, Land Use, and Land Conservation." International Center for Climate and Global Change Research, Auburn University, June 15, 2016, Auburn, AL.

31. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." The 5th Annual Association of Environmental and Resource Economists (AERE) Summer Conference, Sponsored Session, June 9-11, 2016, Breckenridge, CO.

30. "Climate, Insurance, and Innovation: The Case of the U.S. Agriculture." The 15th Occasional Workshop in Environmental and Resource Economics. University of California, Santa Barbara, October 2-3, 2015, Santa Barbara, CA.

29. "The Biomass Crop Assistance Program: Critical, Notional, or Distortional Support for Cellulosic Biofuels?" Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 26-28, 2015, San Francisco, CA.

28. "Investments in New Technologies — Markets, Risk, and Policy." Department of Agricultural Economics and Rural Sociology, Auburn University, March 5, 2015, Auburn, AL.

27. "Sodbusting, Crop Insurance and Sunk Conversion Costs." Department of Agricultural Economics and Agribusiness, Louisiana State University, January 28, 2015, Baton Rouge, LA.

26. "Assessing Cost-effectiveness of the Conservation Reserve Program and Its Interaction with Crop Insurance Subsidies." Departmental Workshop of the Program in Environmental and Resource Economics, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, Urbana, IL. December 1, 2014.

25. "Effectiveness of Alternative Policy Instruments to Induce Energy Crop Production with Establishment Cost and Yield Risk." Departmental Workshop of the Program in Environmental and Resource Economics, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, Urbana IL. October 6, 2014.

24. "Effectiveness of Alternative Policy Instruments to Induce Energy Crop Production with Establishment Cost and Yield Risk." Energy Biosciences Institute Internal Seminar, September 25, 2014, University of Illinois at Urbana-Champaign, Urbana, IL.

23. "Effectiveness of Alternative Policy Instruments to Induce Energy Crop Production with Establishment Cost and Yield Risk." Department of Agricultural and Applied Economics, University of Georgia, September 22, 2014, Athens, GA.

22. "Why Price Subsidies May Not be Enough to Induce Production of Energy Crops for Cellulosic Biofuels." In the Invited Paper session "What Will It Take to Get Energy Crops Off the Ground: Land Use Subsidies, Price Subsidies, and Crop Insurance?" at Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 27-29, 2014, Minneapolis, MN.

21. "Sodbusting, Crop Insurance and Sunk Conversion Costs." Department of Agricultural Economics, Kansas State University, July 22, 2014, Manhattan, KS.

20. "Crop Insurance for Energy Grasses." 2013 Crop Insurance and the Farm Bill Symposium, October 8-9, 2013, Louisville, KY.

19. "Responsiveness of Crop Yield and Acreage to Price and Climate." In the organized symposium "Measuring the Impacts of Weather on Crop Yields: Different Approaches for Different Purposes" at Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 4-6, 2013, Washington D.C.

18. "Riskiness of Bioenergy Crop Production in the United States." (Poster Presentation) Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 4-6, 2013, Washington D.C.

17. "Responsiveness of Crop Yield and Acreage to Price and Climate." Departmental Workshop of the Program in Environmental and Resource Economics, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign. April 30, 2013.

16. "To Learn or To Change: Optimal R&D Investments under Uncertainties in the Case of Climate Change." Allied Social Science Associations (ASSA) Annual Meeting. January 4-6, 2013. San Diego, CA.

15. "To Learn or To Change: Optimal R&D Investments under Uncertainties in the Case of Climate Change." Association of Environmental and Resource Economists Summer Conference. June 3-5, 2012. Asheville, NC.

14. "Land Use Consequences of Crop Insurance Subsidies and Sodsaver." Environmental and Resource Economics Workshop, Iowa State University, May 9, 2012. Ames, IA.

13. "Investment in Cellulosic Biofuel Refineries: Do Waivable Biofuel Mandates Matter?" New Mexico State University, May 18, 2012. Las Cruces, NM.

12. "Crop Insurance Subsidies, Supplemental Revenue Assistance Payments, and Land Use Change." University of Arkansas, May 15, 2012. Fayetteville, AR.

11. "To Learn or To Change: Optimal R&D Investments under Uncertainties in the Case of Climate Change." East Carolina University, April 13, 2012. Greenville, NC.

10. "Investment in Cellulosic Biofuel Refineries: Do Waivable Biofuel Mandates Matter?" Energy Biosciences Institute, University of Illinois at Urbana-Champaign, March 2, 2012. Urbana-Champaign, IL.

9. "Land Use Consequences of Crop Insurance Subsidies." Heartland Environmental and Resource Economics Workshop. October 22, 2011. Urbana-Champaign, IL.

8. "Land Retirement Program Design and Empirical Assessments in the Presence of Crop Insurance Subsidies." America & s Grasslands Conference — America & s Grasslands: Status, Threats and Opportunities, August 15-17, 2011, Sioux Falls, SD.

7. "Economic Value of Information: Wheat Protein Measurement." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 24-26, 2011, Pittsburgh, PA.

6. "Investment in Cellulosic Biofuel Refineries: Do Biofuel Mandates Matter?" Agricultural Economics Workshop, Iowa State University, April 20, 2011, Ames, IA.

5. "The Land-Use Change Effect of Ethanol Plants in Iowa: 1997-2009." American Economic Association (AEA) Annual Meeting, January 7-9, 2011, Denver, CO.

4. "The Land-Use Change Effect of Ethanol Plants in Iowa: 1997-2009." Global Land Project Open Science Meeting, October 17-19, 2010, Arizona State University, Tempe, AZ.

3. "Does Waivability in Renewable Fuel Standard Matter for Investment in Cellulosic Biofuel Refineries?" (Poster Presentation) Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 25-27, 2010, Denver, CO.

2. "To Learn or To Change: Optimal R&D Investments under Uncertainties and Purchased Learning in the Case of Climate Change." Tenth Annual Missouri Economics Conference, March 26-27, 2010, University of Missouri-Columbia and Research Division of Fed. Reserve Bank of St. Louis, Columbia, MO.

1. "Double Irreversibilities and the Development of Advanced Biofuels." Southern Economic Association 79th Annual Meetings, November 21-23, 2009, San Antonio, TX.

PRESENTATIONS BY STUDENT CO-AUTHORS

25. Bhandari, Nabin. "Climate, Insurance, and Crop Yield: Evidence from U.S. Agriculture." Agricultural and Applied Economics Association (AAEA) and Western Agricultural Economics Association (WAEA) Joint Annual Meeting, July 27-29, 2025. Denver, Colorado.

24. Bhandari, Nabin. "The ecosystem service values of birds to U.S. corn and soybeans: A national scale analysis." Agricultural and Applied Economics Association (AAEA) and Western Agricultural Economics Association (WAEA) Joint Annual Meeting, July 27-29, 2025. Denver, Colorado.

23. Bhandari, Nabin. "Reducing plastic pollution in food packaging: should we tax virgin plastic consumers or producers?" Agricultural and Applied Economics Association (AAEA) and Western Agricultural Economics Association (WAEA) Joint Annual Meeting, July 27-29, 2025. Denver, Colorado.

22. Mitra, Pritam. "From Labels to Land: The Risks and Realities of Pesticide Use in India." Agriculture, Food, and Human Values Society (AFHVS) Annual Conference, June 18-21, 2025. Corvallis, Oregon.

21. Zaman, Azaz. "U.S. Utility-scale Solar: Role of Policy Uncertainty, Political Polarization, and Market Deregulation." Agricultural and Applied Economics Association (AAEA) and Western Agricultural Economics Association (WAEA) Joint Annual Meeting, July 27-29, 2025. Denver, Colorado.

20. Bhandari, Nabin. "The ecosystem service values of birds to U.S. corn and soybeans: A national scale analysis." Interdisciplinary PhD Workshop in Sustainable Development, Columbia University, April 4-5, 2025. New York City, NY.

19. Bhandari, Nabin. "Climate, Insurance, and Crop Yield: Evidence from U.S. Agriculture. " Southern Agricultural Economics Association (SAEA) Annual Meetings, February 1-4, 2025, Irving, Texas.

18. Zaman, Azaz. "Distributional Effects of Increasing Heat on Regional Farm Operational Efficiency: Implications for the U.S. Agricultural Lending Industry." 2024 NC-1177 (Agricultural and Rural Finance Markets in Transition) Annual Meeting. St. Louis, Missouri, October 15-16, 2024.

17. Zaman, Azaz. "Stability and resilience in farm income: the role of federal farm programs." Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 28-30, 2024, New Orleans, LA.

16. Bhandari, Nabin. "Impact of birds on corn and soybean yield: A national scale analysis based on fixed effect models." Co-authors: Ruiqing Miao and Chaoqun Lu. Southern Agricultural Economics Association (SAEA) Annual Meetings, February 3-6, 2024, Atlanta, GA.

15. Mitra, Pritam. "Ambiguity, Date Labels and Food Waste." Co-authors: Ruiqing Miao and Norbert Wilson. Southern Agricultural Economics Association (SAEA) Annual Meetings, February 3-6, 2024, Atlanta, GA.

14. Cornish, Brian. "Impact of changes in Title II of the 2018 Farm Bill on the Acreage and Environmental Benefits of Conservation Reserve Program." Co-authors: Ruiqing Miao and Madhu Khanna. Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 1-3, 2021, Austin, Texas.

13. Cornish, Brian. "The Impact of Small Refinery Exemption Waivers on Renewable Fuel Market Factors." (Poster Presentation) Co-authors: Ruiqing Miao and Joel Cuffey. Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 1-3, 2021, Austin, Texas.

12. Cornish, Brian. "Impacts of Small Refinery Exemption Waivers on Renewable Fuel Demand." Co-authors: Ruiqing Miao and Joel Cuffey. Applied Microeconomics Seminar, Department of Economics, Auburn University, November 4, 2020, Auburn, AL.

11. Cornish, Brian. "Impact of changes in Title II of the 2018 Farm Bill on the Acreage and Environmental Benefits of Conservation Reserve Program." Co-authors: Ruiqing Miao and Madhu Khanna. Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 10-11, 2020. Online virtual meeting.

10. Ghosh, Prasenjit. "The Effects of Federal Crop Insurance Program on Irrigation Water Use in the United States." (Poster Presentation) Co-authors: Ruiqing Miao and Emir Malikov. Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 21-23, 2019, Atlanta, GA.

9. Cornish, Brian. "Determinants of Conservation Reserve Program Acreage Supply and Potential Effects of the 2018 Farm Bill." Co-author: Ruiqing Miao. The 34th Annual Career Fair and Training Conference, Minorities in Agriculture Natural Resources and Related Sciences (MANRRS), April 5th, 2019, Overland Park, KS.

8. Ghosh, Prasenjit. "The Effects of Federal Crop Insurance Program on Irrigation Water Use in the United States." Co-authors: Ruiqing Miao and Emir Malikov. Southern Agricultural Economics Association (SAEA) Annual Meetings, February 2-5, 2019, Birmingham, AL.

7. Anand, Mohit. "Contracting in the Presence of Insurance: The Case of Bioenergy Crop Production." Southern Agricultural Economics Association (SAEA) Annual Meetings, February 2-5, 2019, Birmingham, AL.

6. Brian Cornish. "Potential Effects of the 2018 Farm Bill on the Conservation Reserve Program." Southern Agricultural Economics Association (SAEA) Annual Meetings, February 2-5, 2019, Birmingham, AL.

5. Ghosh, Prasenjit. "The Effects of Federal Crop Insurance Program on Irrigation Water Use in the United States." Allied Social Science Associations (ASSA) Annual Meeting, January 4-6, 2019, Atlanta, GA.

4. Ghosh, Prasenjit. "Agricultural Irrigation's Responses to Federal Crop Insurance in the United States." Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 5-7, 2018, Washington, D.C.

3. Anand, Mohit. "Adopting Energy Crops: Does Farmers' Attitude toward Loss Matter?" Co-authors: Ruiqing Miao and Madhu Khanna. Southern Agricultural Economics Association (SAEA) Annual Meetings, February 2-6, 2018, Jacksonville, Florida.

2. Anand, Mohit. "Adopting Energy Crops: Does Farmers' Attitude toward Loss Matter?" Co-authors: Ruiqing Miao and Madhu Khanna. Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 30 - August 1, 2017, Chicago, IL.

1. Ghosh, Prasenjit. "Have They Gone with the Wind? Indirect Effects of Wind Turbines on Bird Abundance." Co-authors: Jian Rong, Ruiqing Miao, Madhu Khanna, and Weiwei Wang. Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 30 - August 1, 2017, Chicago, IL.

CONFERENCE SESSIONS ORGANIZED OR CO-ORGANIZED

6. The 2026 Multi-state Project NC1034 Annual Meeting, March 27-28, 2026, Fort Worth, TX.

5. The 2025 Multi-state Project NC1034 Annual Meeting, March 28-29, 2025, Berkeley, CA.

4. Meeting Editors of Applied Economic Perspectives and Policy (AEPP) and of Choices. Organized Symposium at the Southern Agricultural Economics Association (SAEA) Annual Meetings, February 3-6, 2024, Atlanta, GA.

3. The Political Economy of Farm Labor, Natural Resources, and Agricultural Innovation. Invited Paper Session. Agricultural & Applied Economics Association (AAEA) Annual Meeting, July 23-25, 2023, Washington, D.C.

2. Data and modeling advances toward sustainable Food-Energy-Water development on a manageable scale (GC031). Co-organized with Chaoqun Lu, Hanqin Tian, and Shufen Pan. American Geophysical Union (AGU) Fall Meeting, New Orleans and Online, December 13-17, 2021.

1. Early Career Success: Award Winning Advice. Co-organized with Jerrod Penn. Agricultural & Applied Economics Association (AAEA) Annual Meeting, August 1-3, 2021, Austin, Texas.

CONFERENCES/WORKSHOPS ATTENDED WITHOUT MAKING PRESENTATIONS

52. Association of Environmental and Resource Economists (AERE) 2024 Summer Conference, May 29-31, 2024, Washington DC.

51. NBER Distributional Impacts of Climate Change in the Agricultural Sector Conference. November 17, 2023. University of Chicago, Chicago, IL. (invited)

50. Agricultural Productivity Growth: Measurement, Drivers, and Climatic Effects. Organized by Farm Foundation, Virginia Tech, and Economic Research Service (ERS) of USDA. March 29-30, 2023. Arlington, VA.

49. C-FARE's Webinar: The Implications of Natural Disasters on US Agriculture. 11:30am - 12:30pm (CST), February 13, 2023, online.

48. C-FARE's Brandt Forum 2023. Agricultural and Environmental Science-Based Policy: Opportunities and Challenges for U.S. Agriculture and the Environment. 11:30am - 2:30pm (CST), January 5, 2023, New Orleans, LA.

47. Agricultural & Applied Economics Association (AAEA) Annual Meeting. July 31-August 2, 2022. Virtual meeting.

46. Giannini Foundation Annual Meeting and Dinner, University of California, Berkeley, May 3, 2022, 5-8pm (PT).

45. C-FARE's Brandt Forum 2022: Agricultural and Environmental Science-Based Policy. April 6, 2022, 11:20am-1:10pm (EST). Virtual meeting.

44. C-FARE Webinar: Carbon Sequestration: The Geological and Biological Potential. December 8, 2021, 12pm-1:30pm (EST).

43. iSEE Congress Fall 2021: Circular Food Systems. Webinar by C-FARE and the Institute for Sustainability, Energy, and Environment at the University of Illinois Urbana-Champaign. October 27, 2021. Virtual meeting.

42. Online Summer Workshop in Envrionment, Energy, and Transportation (Economics) (OSWEET). Twice a month on a Friday, 1pm Pacific Time. Organized by Sarah Jacobson, Williams; Ed Rubin, U of Oregon; Catie Hausman, Michigan; Ariel Ortiz-Bobea, Cornell; Antonio Bento, USC; and Max Auffhammer, UC Berkeley. August 13, 2021. Online virtual meeting.

41. NBER conference on Risks in Agricultural Supply Chains, May 20-21, 2021. Virtual conference. (invited)

40. Center for the Economics of Sustainability Mini-talks, University of Illinois at Urbana-Champaign, April 27th, 2021. Virtual meeting.

39. The Center for Business and Public Policy Seminar Series, University of Illinois at Urbana-Champaign, April 27th, 2021. Virtual meeting.

38. Agricultural Economics Workshop, Department of Agricultural and Resource Economics, University of California, Davis. Virtual meetings. Spring 2021.

37. C-FARE's Annual Brandt Forum. Impacts of a Digitally Driven Global Economy: Opportunities and Challenges for U.S. Agriculture. April 2 and April 5, 2021, 10:00am - 1:30pm (EST). Virtual meeting.

36. Reducing the Health Impacts of the Nitrogen Problem. Virtual workshop hosted by the Environmental Health Matters Initiative (EHMI), the National Academies of Sciences, Engineering, and Medicine. January 28 - February 25, 2021, every Thursday from 2:30-5:30 PM (ET).

35. The 2021 American Economic Association (AEA) Continuing Education Online Classes: Markets for Innovation: Market Failures and Public Policies. Lecturers: Kevin Bryan (U. of Toronto) and Heidi Williams (Stanford). January 6-7, 2021.

34. American Economic Association (AEA) 2021 Virtual Annual Meeting, January 3-5, 2021.

33. The 15^{th} James S. Palmer Lecture in the School of Public Policy, University of Calgary. Speaker: Esther Duflo, MIT. Wednesday, December 16, 2020, 10:00 AM - 12:00 PM (MST). Online virtual lecture.

32. Hearing the Diverse Voices of AAEA webinar. Organized by the AAEA Mentoring Committee. Friday, December 11, 11:30 am - 1:00 pm (Central Time).

31. Beahrs ELP 20th Anniversary Webinar Series: The Biden-Harris Administration and the Future of the Global Environment. Organized by the Beahrs Environmental Leadership Program. Speaker: Max Auffhammer, UC Berkeley. Tuesday, December 1st 12:00 PM - 1:00 PM PST.

30. Federal Reserve Bank of Richmond Climate Change Workshop. Organized by Federal Reserve Bank of Richmond. November 19-20, 2020. Online virtual meeting.

29. Climate Adaptation Research Symposium: Measuring and Reducing Social Impacts. Organized by UCLA Luskin Center for Innovation. September 21, 2020. Online virtual meeting.

28. Online Summer Workshop in Envrionment, Energy, and Transportation (Economics) (OSWEET). Twice a month on a Friday, 1pm Pacific Time. Organized by Sarah Jacobson, Williams; Ed Rubin, U of Oregon; Catie Hausman, Michigan; Ariel Ortiz-Bobea, Cornell; Antonio Bento, USC; and Max Auffhammer, UC Berkeley. Online virtual meeting.

27. Integrated modeling of sustainable food, energy, and water systems from regional to global scales (AAEA Environmental mini-conference). August 19, 2020 12:30-3:45pm Central Time. Online virtual meeting.

26. Economic and Environmental Implications of Biofuels (2020 AAEA Organized Symposium). Aug 17, 2020 02:00 PM Central Time. Online virtual meeting.

25. The Econometric Society and Bocconi University Virtual World Congress. August 17-21, 2020. Online virtual meeting.

24. Agricultural & Applied Economics Association (AAEA) Annual Meeting. August 10-11, 2020. Online virtual meeting.

23. The 25th Annual Conference of the European Association of Environmental and Resource Economists. Online via Zoom. June 23 - July 3, 2020.

22. Advancing Digital Agriculture and Conservation: A Virtual, Multi-Day Policy Workshop. Organized by Farm Foundation, the Cornell University Initiative for Digital Agriculture (CIDA), the Center for the Economics of Sustainability at the University of Illinois, and the University of Illinois Center for Digital Agriculture (CDA). Online via Zoom. May 20, May 27, May 29 and June 3, 2020.

21. Online Agricultural and Resource Economics Seminar. Organized by Dr. Marc Bellemare and Dr. Jeffrey Bloem (link: https://sites.google.com/view/oares/home). Online via Zoom. May-December, 2020.

20. Rapid Response Webinar for COVID-19: Integrated Economic Analysis Needed to Advance Short Term Decision-Making in the Novel Coronavirus Pandemic. Organized by Eli Fenichel, Cathy Kling, and J Shogren. Online via Zoom. April 7, 2020, 1-2:30 EST.

19. American Economic Association (AEA) 2020 Annual Meeting, January 3-5, 2020, San Diego, CA.

18. Farmdoc webinar "Is farmdoc the Future of Agricultural Extension?" conducted by College of Agricultural, Consumer, and Environmental Sciences, University of Illinois at Urbana-Champaign, Tuesday, Sep 10, 2019 12:00 PM - 1:00 PM CDT.

17. Alabama Agribusiness Council 2019 Annual Meeting, June 23-25, 2019, Perdido Beach Resort, Orange Beach, AL.

16. American Economic Association (AEA) 2019 Annual Meeting, January 4-6, 2019, Atlanta, GA.

15. 2018 Commodity Producers Conference and Expo, August 2-5, Montgomery, AL.

14. Alabama Agribusiness Council 2018 Annual Meeting, June 24-26, 2018, Perdido Beach Resort, Orange Beach, AL.

13. 2018 Global Change and Food-Energy-Water Symposium, February 9, 2018, Auburn University, Auburn, AL.

12. Alabama Agribusiness Council 2017 Annual Meeting, June 25-27, 2017, Perdido Beach Resort, Orange Beach, AL.

11. 2017 Alabama Stormwater Forum, May 11-12, 2017, Auburn University, Auburn, AL.
10. Alabama Agribusiness Council 2016 Annual Meeting, June 26-28, 2016, Orange Beach, AL.
9. American Economic Association (AEA) 2015 Annual Meeting, January 3-5, 2015, Boston, MA.
8. Heartland Environmental and Resource Economics Conference, November 1-2, 2014, Urbana, IL.
7. iSEE Congress 2014 - Feeding 9 Billion, September 30 - October 2, 2014, University of Illinois at Urbana-Champaign, Urbana, IL.
6. American Economic Association (AEA) 2014 Annual Meeting, January 3-5, 2014, Philadelphia, PA.
5. Heartland Environmental and Resource Economics Conference, November 2-3, 2013, Urbana, IL.
4. Heartland Environmental and Resource Economics Conference, November 10, 2012, Urbana, IL.
3. American Economic Association (AEA) 2012 Annual Meeting, January 6-8, 2012, Chicago, IL.
2. American Economic Association (AEA) 2008 Annual Meeting, January 4-6, 2008, New Orleans, LA.
1. American Economic Association (AEA) 2007 Annual Meeting, January 5-7, 2007, Chicago, IL.

MENTORING

Faculty Members at Auburn University

Joel Cuffey (Associate Professor): 2018 - present.

Wendiam Sawadgo (Assistant Professor): 2020 - present.

Sunjae Won (Assistant Professor): 2022-2026.

Post-doctoral Research Associate

Bijesh Mishra (October 2022 - August 2024)
placement: Post-doctoral Research Associate, Georgia Institute of Technology

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Visiting Scholar

Recep Ulucak (March - August, 2023). Current position: Rector, Kayseri University, Turkey.

PhD students on whose committees I served as a chair or co-chair

Nabin Bhandari, Auburn, 2026, Chair.
first placement: Postdoctoral Fellow, Department of Agricultural and Applied Economics, Texas Tech University.

Pritam Mitra, Auburn, 2025, Chair.
first placement: Assistant Professor, Alcorn State University.

Azaz Zaman, Auburn, 2025, Chair
first placement: Postdoctoral Fellow, Division of Applied Social Sciences, University of Missouri.

Brian Cornish, Auburn, 2024, Chair.
Presidential Graduate Opportunity Program Fellow,
first placement: Economist of the U.S. Geological Survey (USGS), Fort Collins Science Center, Fort Collins, CO.

Prasenjit Ghosh, Auburn, 2021, Co-Chaired with Henry Kinnucan
first placement: Assistant professor of Agricultural Business, University of Southern Indiana, IN, USA.

Mohit Anand, Auburn, 2018, Co-Chaired with Patricia Duffy
first placement: Division chair and assistant professor, Division of Business and Accounting, Miles College, AL, USA.

PhD students on whose committees I served as a committee member

Yunei Hua, current, Department of Agricultural Economics and Rural Sociology, Auburn

Yingyun Lin, current, Department of Agricultural Economics and Rural Sociology, Auburn

Yanlin Zhu, current, Department of Agricultural Economics and Rural Sociology, Auburn

Emmanuel Kossy Okonkwo, current, Department of Agricultural Economics and Rural Sociology, Auburn

Roshan Saha, current, Department of Agricultural Economics and Rural Sociology, Auburn

Siqi Gao, 2025, Department of Agricultural Economics and Rural Sociology, Auburn
placement: Senior Data Engineer, Applied Optoelectronics, Inc. (AOI)

Dibyajyoti Sinha, 2024, Department of Economics, Auburn
placement: Assistant Professor, Department of Economics, College of Business, University of Akron

Yijia Li, 2024, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign

Derick Adu, 2024, Department of Agricultural Economics and Rural Sociology, Auburn
placement: Assistant Professor, Alcorn State University.

Fahd Majeed, 2023, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign
placement: Assistant Professor, University of Hawai'i at Mānoa

Yousef Alkilany, 2022, Auburn
placement: Postdoctoral research associate, University of Missouri.

Jingfang Zhang, 2021, Auburn
placement: Assistant Professor, Alcorn State University.

Nisha Sehrawat, 2021, Auburn

Charles Karau Machatha, 2021, Auburn

Matthew Muntifering, 2020, Auburn
placement: Senior Analyst, Product & Engagement Analytics - Data Integrity position, Realtor.com

Suzan Odabasi, 2019, Auburn
placement: Assistant Professor in Economics, Usak University, Turkey

Ping Wang, 2018, Auburn
placement: Assistant Professor, Zhongnan University of Economics and Law, Wuhan, China

Meijuan Wang, 2018, Auburn
placement: Research Management Office, Hebei Normal University of Science and Technology, Qinhuangdao, Hebei, China

Yuxi Luo, 2016, Auburn
placement: Assistant Professor, Guangxi Normal University, Guilin, China; and Institute for Southwestern City and Regional Development, China

Togo Traore, 2016, Auburn, placement: Model Validation Analyst, Freddie Mac in Fairfax, VA, USA

PhD students on whose committees I served as a university reader

Raziyeh Jokar, current, Biosystems Engineering, Auburn

Yongfa You, 2023, School of Forestry and Wildlife Sciences, Auburn
dissertation: Dynamics of Crop Production and Greenhouse Gas Balance in a Changing Environment: Data-Driven Systems Approach for Sustainable Agriculture in the United States
placement: Postdoctoral Research Associate, Schiller Institute for Integrated Science and Society, Boston College

Jie Zhang, 2020, Department of Economics, Auburn
dissertation: Three Essays on Economics of the Parliaments
placement: Assistant Professor (tenure-track), Center for Economics, Finance and Management Studies (CEFMS) at Hunan University, China

Yecheng Xu, 2019, School of Forestry and Wildlife Sciences, Auburn
dissertation: The Population, Livestock, and Cropland in Changing Society and Climate in Mongolia
placement: Assistant Professor, Department of Economics, Zhejiang University of Finance and Economics, Hangzhou, China

Jagdish Poudel, 2017, School of Forestry and Wildlife Sciences, Auburn
placement: Forest Economist Specialist, Michigan Department of Natural Resources-Forest Resource Division, Lansing, MI, USA

PhD students for whom I served as an intake advisor

Derick Adu, Spring 2020, Auburn

Master's students on whose committees I served as a Chair

Daniel Bolorunduro, current, Auburn

Musa Ngbede, 2024, Auburn
placement: PhD student, Department of Agricultural Leadership, Education & Communications, Texas A&M University

George Richburg, 2023, Auburn
placement: Market Reporter. Livestock, Poultry, and Grain Market News Division, USDA Agricultural Marketing Service

Hayes Grogan, 2020, Auburn
placement: High School Math Instructor, Southern Preparatory Academy, Camp Hill, AL

Brian Cornish, 2019, Auburn
placement: PhD program in agricultural economics at Auburn University

Master's students on whose committees I served as a committee member

Tayler Schillerberg, 2019, Crop, Soil, and Environmental Sciences, Auburn
placement: PhD program in Crop, Soil, and Environmental Sciences, Auburn University

Taylor Johnson, 2018, Auburn
placement: Associate Bank Examiner, Farm Credit Administration (FCA), McLean, VA, USA

Master's students for whom I served as an intake advisor

Puru Dhungana, Fall 2024, Auburn

Undergraduate student research advising

Gracen Bridges. Summer 2022 - Spring 2023. Project "The impact of climate change on major Alabama crops." Undergraduate Research Fellow, Auburn University.

Lindsey Wessel. Fall 2021. Project "A Study of Crop Insurance Fraud in Alabama." Undergraduate Research Fellow, Auburn University.
placement: Juris Doctor Program, Mercer Law School, Georgia.

Roshell Rosales Aguilar. Summer 2020 - Spring 2021. Project "Food Waste and Food Loss: Causes and Remedies." Undergraduate Research Fellow, Auburn University.
placement: Master of Science Program, Charles H. Dyson School of Applied Economics and Management, Cornell University.

Seth Ingram. Fall 2020. Project "Impact of the China-US Trade War on the Alabama Soybean Industry." Undergraduate Research Fellow, Auburn University.
placement: Master of Science in Agricultural Economics, University of Tennessee.

Nathan Scarff. Summer 2017 to December 2017. Project "Production Risk of Alabama Agriculture: Its Determinants and the Effects of Risk Management Tools on Farmers' Production Efficiency and Welfare."
placement: Investment Specialist, Merrill Edge, Bank of America, Baltimore, MD, USA.

Carter Weis. Spring 2016 to Summer 2017, with Norbert Wilson. Project "Food Waste: Consumer Response to Information, Technology, and Risk."
placement: Master of Science Program, Charles H. Dyson School of Applied Economics and Management, Cornell University.

Undergraduate student academic advising

Fall 2015 - Spring 2016	Advise on average 8 undergraduate students on courses and provide general guidance.

High school student research advising

Ethan Zhong (Herricks High School, New York). Summer 2026-Present. Project: "Understanding Crop Insurance Demand from the Perspective of Ambiguity Aversion."

Richard Chen (Loveless Academic Magnet Program (LAMP) High School, AL). Summer 2025. Project: "A Study on Economic Development and Alabama Biodiversity."

Cynthia Kim (Loveless Academic Magnet Program (LAMP) High School, AL). Summer and fall 2024. Research Experience and Mentoring (REM) Program, NSF.
Placement: Undergraduate Program, University of Michigan, Ann Arbor

Jenny Kim (Loveless Academic Magnet Program (LAMP) High School, AL). Summer and fall 2024. Research Experience and Mentoring (REM) Program, NSF.
Placement: Undergraduate Program, University of Michigan, Ann Arbor

Gabrielle Geringer (Columbus High School, GA). Academic Year 2023-2024. Project: "Correlational analysis on Climate Change and Crop Production in Georgia."

Aurora Liang (Loveless Academic Magnet Program (LAMP) High School, AL). Summer and fall 2022. Research Experience and Mentoring (REM) Program, NSF. In the Greater East Alabama Regional Science and Engineering Fair (GEARSEF) on February 24, 2023, Liang won the 1st place in the category "Physics, Astronomy & Mathematics" with her project on "Tax vs. Subsidy: The Impact of Policies on Landfill Plastic."
Placement: Undergraduate Program, Heersink School of Medicine, University of Alabama at Birmingham.

TEACHING

Auburn University (student evaluation score in the brackets)

Fall 2026	Food and Agricultural Policy (AGEC 8090, PhD level)
Fall 2026	Computer Applications in Agricultural Economics (AGEC 3100, two sessions)
Fall 2025	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.6/6]
Fall 2025	Production Economics (I) (AGEC 7080, PhD level) [5.7/6]
Fall 2025	Polymer Recycling (MATL 5970/6970), co-taught with 3 faculty members across campus
Fall 2024	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [4.8/6]
Fall 2024	Food and Agricultural Policy (AGEC 8090, PhD level) [5.8/6]
Fall 2024	Polymer Recycling (MATL 5970/6970), co-taught with 3 faculty members across campus
Fall 2023	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.3/6]
Fall 2023	Production Economics (I) (AGEC 7080, PhD level) [6/6]
Fall 2022	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.7/6]
Fall 2022	Food and Agricultural Policy (AGEC 8090, PhD level) [5.9/6]
Spring 2022	Guest lecture for Quantitative Policy Analysis (ARE 242), Department of Agricultural and Resource Economics, University of California, Berkeley, 4/13/2022.
Fall 2021	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.3/6]
Fall 2021	Production Economics (I) (AGEC 7080, PhD level) [5.5/6]
Spring 2021	Independent Study with Directed Readings (AGEC 4960)
Fall 2020	Food and Agricultural Policy (AGEC 8090, PhD level), online [5.6/6]
Fall 2020	Computer Applications in Agricultural Economics (AGEC 3100, two sessions), online [5.2/6]
Spring 2020	Guest lecture for Mineral Resources: Processing and Availability (MATL 2230), 2/13/2020
Fall 2019	Production Economics (I) (AGEC 7080, PhD level) [5.3/6]
Fall 2019	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.2/6]
Spring 2019	Food and Agricultural Policy (AGEC 8090, PhD level) [6/6]
Fall 2018	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.3/6]
Fall 2018	Guest lecture for Mineral Resources: Processing and Availability (MATL 2230), 9/27/2018
Fall 2018	Guest lecture for Food, Agriculture, and Society (RSOC 3190), 10/8/2018

Fall 2017	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [4.9/6]
Fall 2017	Independent Study with Directed Readings (AGEC 4960)
Fall 2017	Food and Agricultural Policy (AGEC 8090, PhD level) [5.7/6]
Fall 2016	Computer Applications in Agricultural Economics (AGEC 3100, two sessions) [5.1/6]
Spring 2016	Computer Applications in Agricultural Economics (AGEC 3100) [4.8/6]

Iowa State University (student evaluation score in the brackets)

Summer, 2010	Instructor, Environment, Humans, and Economics, Precollegiate Programs for Talented and Gifted
Summer, 2009	Instructor, Principles of Microeconomics, Department of Economics, [4.1/5]
Summer, 2009	Instructor, Game Theory, Precollegiate Programs for Talented and Gifted
08/2006 - 12/2010	Teaching Assistant, Principles of Microeconomics, Principles of Macroeconomics, Intermediate Microeconomics, Introduction to Agricultural Markets, Applied Economics Optimizations, Macroeconomic Theory (graduate level)

Fudan University

02/2006 - 06/2006	Instructor, International Economic Law
09/2005 - 01/2006	Instructor, Economic Law
02/2005 - 06/2005	Instructor, International Economic Law
11/2005 - 01/2006	Head Teaching Assistant, Microeconomics (PhD level)
09/2005 - 10/2005	Teaching Assistant, Contract Theory (Master's level)

University of Shanghai for Science and Technology

09/2004 - 01/2005	Instructor, Introduction to World Economy
02/2003 - 06/2003	Instructor, Principles of Insurance Science

Other Institutions

09/2004 - 01/2005	Instructor, WTO: An Overview, Putuo TV University of Shanghai, China

RESEARCH ASSISTANT EXPERIENCE

Iowa State University

01/2011 - 05/2011	Research Assistant for Professor David A. Hennessy, Project: "Land Use Consequences of Crop Insurance Subsidies."
05/2010 - 12/2010	Research Assistant for Professor David A. Hennessy, Project: "Economic Value of Information: Wheat and Barley Protein Measurement."
07/2008 - 08/2009	Research Assistant for Professor Bruce A. Babcock, Project: "Reducing the Greenhouse Gas Emissions Associated with Indirect Land Use Changes through Higher Crop Yields, Policy Changes and On-Farm Greenhouse Gas Reduction Strategies."

Fudan University

09/2005 - 01/2006	Research Assistant for Professor Zhigang Yuan, Project: "The Economic Growth of China: Institution, Structure and Welfare"
06/2005 - 09/2005	Research Assistant for Employment and Social Security Research Center (ESSRC), Fudan University. Project: "Urbanization, Land Exchange, and Social Security"
12/2004 - 01/2005	Research Assistant for Employment and Social Security Research Center (ESSRC), Fudan University. Project: "the Study of Immigrant Worker Policy of Shanghai During Its 11th Five-Year Plan"

CERTIFICATES

Fall 2010	Graduate Student Teaching Certificate
Spring 2010	Preparing Future Faculty Scholar
Spring 2010	Preparing Future Faculty Fellow
Spring 2009	Preparing Future Faculty Associate

AWARDS, HONORS, FELLOWSHIPS, AND MINI-GRANTS

2023 - 2025	Co-Editor, *Choices* Magazine, a publication of the AAEA
2025	Outgoing Editor Award, the AAEA
2023 - 2026	Associate Editor, *Natural Resource Modeling*
2020-2023	Associate Editor, *American Journal of Agricultural Economics*
2021-2024	Associate Editor, *Agricultural Economics*
2022	Dean's Research Award, College of Agriculture, Auburn University
2021	Outstanding Journal Article 2020 of the European Review of Agricultural Economics, The European Agricultural and Applied Economics Publications (EAAEP) Foundation.
Fall 2021	Undergraduate Research Fellowship Program, Student: Lindsey Wessel, $1,700.
2020	Outstanding Publication Award (High Scientific Impact), College of Agriculture, Auburn University.
Fall 2020	Undergraduate Research Fellowship Program, Student: Seth Ingram, $1,400.
2020 - 2021	Undergraduate Research Fellowship Program, Student: Roshell Rosales Aguilar, $4,800.
2019	Emerging Scholar Award, Southern Agricultural Economics Association.
2017	Dean's Grantsmanship Award, Auburn University College of Agriculture.
2017	Multistate Travel Grant Program at Auburn University, $750 for SCC-76 2017 Annual Meeting in Pensacola Beach, FL.
2016	Biggio Center for the Enhancement of Learning and Teaching, $5,000 for redesigning course AGEC 3100 (Computer Applications in Agricultural Economics), Auburn University.
2016	Association of Environmental and Resource Economists (AERE) 5th Annual Summer Conference, Sponsored session travel stipend, $1,300.83.
2015	The 15th Occasional Workshop in Environmental and Resource Economics Travel Stipend Award, $982.2, U. of California, Santa Barbara.
2014	Energy Biosciences Institute Travel Award, $1,000, U. of Illinois.
2007 - 2011	Professional Advancement Grant, six times, Iowa State University
2010	Graduate and Professional Student Senate Peer Research Award, Iowa State University

2010	Travel Grant, The Global Land Project of the International Geosphere Biosphere Programme
2010	Graduate Teaching Excellence Award, Iowa State University
2010	Graduate and Professional Student Senate Peer Teaching Award, Iowa State University
2004 - 2006	Graduate Fellowship, Fudan University, China
1997 - 2006	Zhang Wang Zhuang Scholarship, four times, ¥29,000 in total, Linyi, China
2001 - 2004	Graduate Fellowship, University of Shanghai for Science and Technology, China

HUMAN RESOURCE SERVICE TRAINING HISTORY

May 6-12, 2026	Summer Course (Re)Design (CRD) Seminar (offered by the Biggio Center for the Enhancement of Learning and Teaching at Auburn U), Auburn, AL.
10/9/2025	Machines & Methods: AI for Research. The Biggio Center, Auburn University.
8/19/2025	Completed the course "Copilot in Excel: Supercharge Your Productivity."
8/19/2025	Completed the course "Copilot in Teams: AI-Powered Collaboration."
8/19/2025	Completed the course "IT500E An Introduction to AI and Microsoft Copilot at Auburn University."
8/2/2025	Responsible Conduct of Research (CITI Program). Auburn University.
12/06/2021	How to Evaluate a Diversity Statement in Faculty Searches, Auburn University.
03/01/2021	QPR Suicide Prevention Training, Mental Health Training Day, Auburn University.
07/2020	Deep Dives into the Four Instructional Modalities. Biggio Center for the Enhancement of Teaching & Learning, Auburn University, Auburn, AL.
07/2020	Virtual Workshop on Best Practices for Grant and Contract Processing. College of Agriculture, Auburn University, Auburn, AL.
09/2019	Search Committee Online Training, Auburn University, Auburn, AL.
04/2019	Farming Basics. Online course offered by Alabama Cooperative Extension System, Auburn University, Auburn, AL.
02/2019	Human Resource Development Training Course: Emotional Intelligence. February 6, 2019. Auburn University.
06/2017	NSF Grantsmanship Workshop. June 9, 2017, Auburn, AL.
12/2016	The 2016 Alabama Corn and Wheat Short Course (offered by the Alabama Cooperative Extension System). December 12-13, 2016, Auburn, AL.
5-6/2016	Summer Course (Re)Design Seminar (offered by the Biggio Center for the Enhancement of Learning and Teaching at Auburn U), Auburn, AL.
07/14/2015	Active Shooter Response, University of Illinois Police, University of Illinois at Urbana-Champaign, Urbana, IL.
10/2007	Graduate Student Teaching and Learning Circle: McKeachie's Teaching Tips
9-10/2008	Graduate Student Teaching and Learning Circle: A Whack on the Side of the Head
1-2/2009	Graduate Student Teaching and Learning Circle: Generation Me
02/18/2009	Engaging Students in the Classroom Panel
03/08/2010	Morrison Grant Writing workshop: Write Winning Grants
03/09/2010	Morrison Grant Writing workshop: Write Winning Revisions

REFEREE SERVICE

Agricultural Economics
Agricultural and Resource Economics Review
Agricultural Finance Review
Agronomy
American Journal of Agricultural Economics
Annals of the New York Academy of Sciences
Applied Economics Letters
Applied Economic Perspectives and Policy
Canadian Journal of Agricultural Economics
Climate Change Economics
Climatic Change
China Agricultural Economic Review
Choices
Ecological Economics
Economic Research Service (ERS) Reports
Empirical Economics
Energy Policy
Energy, Sustainability and Society
Environmental Research Letters
European Review of Agricultural Economics
Food Policy
Frontiers in Environmental Science
Global Environmental Change
J. of Agricultural Economics
J. of Agricultural and Applied Economics
J. of Agricultural and Resource Economics
J. of the Agricultural and Applied Economics Association
J. of the Association of Environmental and Resource Economists
J. of the Royal Statistical Society
Joule
Land Economics
Land Use Policy
Natural Resource Modeling
Nature Communication
Nature Sustainability
PLOS One
Q Open
Remote Sensing
Resource and Energy Economics
Review of Economics and Statistics
Science
The Energy Journal
World Development
AAEA annual meeting 2014-2019, 2021-2025 (*selected papers*)
AERE Summer Conference, 2025
World Congress of Environmental and Resource Economists, 2026

REVIEW PANELS

13. Internal Peer Review Panel for the 2026 Alabama Agricultural Experiment Station (AAES) Grants, College of Agriculture, Auburn University. September, 2025.

12. Ad hoc reviewer for proposals, Economics program, National Science Foundation. March 2026.

11. Internal Peer Review Panel for the 2025 Alabama Agricultural Experiment Station (AAES) Grants, College of Agriculture, Auburn University. September, 2025.

10. Peer review panel for proposals submitted to NOAA RESTORE Science Program's 2025 Federal Funding Opportunity: Long Term Trends. November 2024.

9. Internal Reviewer for proposals submitted to Auburn University Research and Innovation Center, October 2024.

8. Ad hoc reviewer for proposals, Environmental Sustainability program, National Science Foundation. Summer 2022.

7. Peer review panel for proposals submitted to the 2020 Agricultural and Food Research Initiative (AFRI) Competitive Grants Program — Agriculture Economics and Rural Communities (AERC): Environmental and Natural Resource Economics Program. USDA National Institute of Food and Agriculture (NIFA). July 7-8, 2020.

6. Expert Reviewer for the Second Order Draft (SOD) of the Working Group I (WGI) contribution to the Sixth Assessment Report (AR6) of Intergovernmental Panel on Climate Change (IPCC). March-April, 2020.

5. Peer Review Panel for the 2019-2020 Intramural Grants Program (IGP) at Auburn University. Spring semester, 2020.

4. Expert Reviewer for the First Order Draft (FOD) of the Working Group I (WGI) contribution to the Sixth Assessment Report (AR6) of Intergovernmental Panel on Climate Change (IPCC). May-June, 2019.

3. Peer Review Panel for proposals submitted to the 2018 USDA National Institute of Food and Agriculture (NIFA) programs: Environment and Natural Resource Economics (A1651), Center for Behavioral and Experimental Economics for Agri-Environmental and Risk Management Policy Research (A1655), and Valuing Environmental Benefits from Natural Resource Conservation Programs (A1654). November 13-15, 2018.

2. Peer Review Panel for the 2018 Alabama Agricultural Experiment Station (AAES) Production Agriculture Research Funding Program, College of Agriculture, Auburn University. April 18, 2018.

1. Peer Review Panel for the FY 2016 National Needs Graduate and Postgraduate Fellowship Grants Program (NNF), the National Institute of Food and Agriculture (NIFA), USDA. 2017. February 14-16, 2017.

TEACHING ADVISING

Samir Huseynov. Spring 2021. Computer Applications in Agricultural Economics (AGEC 3100). Auburn University.

Igbekele Amos Ajibefun. Spring 2020. Computer Applications in Agricultural Economics (AGEC 3100). Auburn University.

Brian Cornish. Spring 2019. Computer Applications in Agricultural Economics (AGEC 3100). Auburn University.

Ly Nguyen. Spring 2018. Computer Applications in Agricultural Economics (AGEC 3100). Auburn University.

DEPARTMENTAL SERVICE

Auburn University

Fall 2022-Present	Faculty mentor for Dr. Sunjae Won
Fall 2020-Present	Faculty mentor for Dr. Joel Cuffey
Fall 2020-Present	Faculty mentor for Dr. Wendiam Sawadgo
Spring 2025-Present	Award Committee
Fall 2024-Spring 2025	Member, Search committee for the department head position of the Department of Agricultural Economics and Rural Sociology
Spring 2021-Fall 2022	Chair, Graduate Program Committee
Spring 2021-Fall 2022	Graduate Program Officer, PhD program
Fall 2021	Member, Faculty search committee (Production Econometrics position)
Spring 2021	Peer Teaching Evaluation for Wenying Li (AGEC 3200 Quantitative Methods in Agricultural Economics)
Fall 2020- Fall 2021	Associate professor member, Promotion and Tenure Committee
Fall 2020- Fall 2021	Member, PhD Research Paper Committee
Spring 2020-Present	Member, Assessment Team
Spring 2020	Peer Teaching Evaluation for John Ng'ombe (AGEC8080 Production Economics II)
Spring 2020	Proposal reviewer for Dr. Joel Cuffey's Hatch Project "Food marketing in Alabama and the Southeast"
Spring 2020	Department Faculty Meeting Secretary
Fall 2019	Department Faculty Meeting Secretary Substitute
2020	MS Program Graduate Program Officer
Fall 2019 - Spring 2020	Member, Faculty search committee (ALFA Eminent Scholar position)
Fall 2019	Chair, Faculty search committee (agribusiness/experimental economics position)
Fall 2018 - Spring 2019	Member, Faculty search committee (ALFA Eminent Scholar position)
Spring and Fall 2017	Member, Faculty search committee (ALFA Eminent Scholar position)
Fall 2015 - Spring 2021	Member, Undergraduate curriculum/teaching committee
Fall 2015 - Spring 2021	Member, Scholarship committee
Spring and Fall 2016	Member, Faculty search committee (Assistant professor/Extension Risk Management position)
Spring and Fall 2016	Member, Fire escape project review committee
Spring 2016	Graduate student brown bag seminar coordinator (with Henry Kinnucan)
Fall 2015 - Fall 2016	Co-advisor, AgriBusiness Club

Iowa State University

08/2009 - 08/2012	Economics Graduate Student Association Mentor Program
Spring 2010	Senator of Graduate and Professional Student Senate

COLLEGE-LEVEL SERVICE

2026-present	Member of Search Advisory Committee for the national search for the Dean, College of Agriculture and Director, Alabama Agricultural Experiment Station (AAES)
2026-present	Member, College of Agriculture P&T Committee
2025-present	Member, College of Agriculture Research Committee
2017-2019	Faculty representative, E.T. York Distinguished Lecture Series Committee, College of Agriculture

UNIVERSITY-LEVEL SERVICE

2023	Search committee member for the department head position of the Department of Economics
2020-2022	Committee member, Auburn University (AU) - HuaZhong Agricultural University (HZAU) Research and Scholarship Committee, AU-HZAU Partnership for International Research and Education.

SERVICE IN PROFESSION

2024-present	Co-Chair, NC1034 Multistate research group on "Impact Analysis and Decision Strategies for Agricultural Research"
2025	Founding member, Agricultural Innovation and Productivity (AIP) Section, AAEA
2023-2025	Co-Editor, *Choices* Magazine, a publication of the AAEA
2023-2026	Associate Editor, *Natural Resource Modeling*
2021-2024	Associate Editor, *Agricultural Economics*
2020-2023	Associate Editor, *American Journal of Agricultural Economics*
2025	Chair, AAEA Outstanding Doctoral Dissertation Award Sub-committee
2023-2024	Member, AAEA Outstanding Doctoral Dissertation Award Sub-committee
2022-2023	Chair, AAEA Selected Presentations Committee
2020-2023	PhD student job market paper evaluation committee member, Southern Agricultural Economics Association
2021-2022	Member, AAEA Selected Presentations Committee
2018-2019	Topic leader for topic area "Resource and Environmental Policy Analysis" of AAEA annual meetings
2019	Judge for student oral and poster competition at the 77th Professional Agricultural Workers Conference (PAWC), Tuskegee University's Chapter of Gamma Sigma Delta (GSD). December 9
2017	Moderator, the session of "Resource and Ecosystem Studies: Renewable Resources" at Association of Environmental and Resource Economists sixth Annual Summer Conference, May 31 - June 2, 2017, Pittsburgh, PA

OUTREACH ACTIVITIES

04/18/2025	Interviewed by 5 undergraduate students from University of Chicago on agrivoltaics
10/19/2023	Interviewed by researchers of the U.S. Government Accountability Office on the Conservation Reserve Program
05/09/2023	Interviewed by researchers of the U.S. Government Accountability Office on the Conservation Reserve Program
02/07/2022	Provided support letter for a small business in Huntsville, Alabama for their DOE grant application
01/11/2022	Interviewed by a sixth-grade student in Maryland on effects of neonicotinoid insecticides on bird diversity

PROMOTION AND TENURE EVALUATION

2026 (1); 2024(1); 2022(1); 2021(2)

MEMBERSHIPS

American Association for the Advancement of Science (AAAS)
Agricultural & Applied Economics Association (AAEA)
American Economic Association (AEA)
American Risk and Insurance Association (ARIA)
Association of Environmental and Resource Economists (AERE)
Econometric Society (ES)
Impact Analyses and Decision Strategies for Agricultural Research (NC1034)
AI in Agroecosystems: Big Data and Smart Technology-Driven Sustainable Production (S-1090)
Southern Agricultural Economics Association (SAEA)
Economics and Management of Risks in Agriculture and Natural Resources (SCC-76)