

SUNJAE WON

Auburn University
Dept. Agricultural Economics and Rural Sociology
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EDUCATION

Ph.D. in Economics *2017-2022*
North Carolina State University, Raleigh, NC
M.A. in Economics *2012-2013*
Boston University, Boston, MA
B.A. in Economics and Finance, *cum laude* *2005-2011*
Hanyang University, Seoul, South Korea

EMPLOYMENT

Assistant Professor of Production Econometrics *Aug 2022 -*
Department of Agricultural Economics and Rural Sociology
Auburn University, AL
Graduate Research Assistant *May 2021 - Aug 2021*
Department of Agriculture and Resource Economics
North Carolina State University, NC (Supervisor: Dr. Roderick Rejesus)
Graduate Research Assistant *Aug 2020 - Aug 2022*
Department of Agriculture and Resource Economics
North Carolina State University, NC (Supervisor: Dr. Barry Goodwin, Dr. Kathryn Boys)
Independent Instructor *Aug 2019 - May 2022*
Department of Agriculture and Resource Economics
North Carolina State University, NC
Graduate Teaching Assistant *Jan 2018 - May 2021*
Department of Agriculture and Resource Economics
North Carolina State University, NC
Research Associate *Jan 2016 - Aug 2017*
Department of Macroeconomic Policy
Korea Development Institute, South Korea
Research Assistant *May 2014 - Dec 2015*
Department of Macroeconomic Policy
Graduate School of Korea Development Institute, South Korea

REFEREED JOURNAL PUBLICATIONS

(* denote graduate students advised)

1. **Won, S.**, Cho, S. H., and Taylor, M. (2025). "Assessing Soil Carbon Sequestration Through Cover Crops: The Role of Implicit Costs in Alabama Cotton Fields." *Applied Economic Perspectives and Policy* (Early View)

2. Ling, K.*, **Won, S.**, and Li, W. (2025). Investigating Production Cycles in the US Softwood Lumber Industry: 1965–2017. *Journal of Forest Economics*, 40(4), 383-404.
3. **Won, S.**, Rejesus, R. M., Goodwin, B. K., and Aglasan, S. (2024). Understanding the effect of cover crop use on prevented planting losses. *American Journal of Agricultural Economics*, 106(2), 659-683.
 - **2025 Outstanding Research Award**, AAEA Agricultural Finance and Management
4. **Won, S.**, Rejesus, R. M., Poncet, A. M., Aglasan, S., Thapa, R., Tulley, K. L., ... and Mirsky, S. B. (2024). Understanding the yield impacts of alternative cover crop families and mixtures: Evidence from side-by-side plot-level panel data. *Agrosystems, Geosciences and Environment*, 7(4), e70012

SELECTED WORKING PAPERS

(* denote graduate students advised)

1. "Spatial Patterns of Systemic Crop Yield Risk: Evidence from Corn Yields in the Corn Belt, 1951-2023" with Barry Goodwin and Sujit Ghosh
2. "Understanding the Relationship Between Irrigation and Crop Insurance in the Southeastern U.S." (solo)
3. "Evaluating the Impact of Climate Change on the Expansion of Cropland: A Case Study of Corn and Soybean in North and South Dakota" with Seunghyun Lee and Seong-Hoon Cho
4. "Understanding the Role of Extreme Weather in Corn and Soybean Basis Formation Across Production and Transportation Pathways" (solo)
5. "Decomposing Moral Hazard in Prevented Planting" with Seungki Lee and Jisang Yu
6. "The Impact of Cover Cropping on Crop Yield Resilience to Extreme Weather Events: Evidence from High-Resolution Remote Sensing" with Ruiqing Miao and Emir Malikov
7. "Population Growth and Farmland Option Value in Alabama " with Mykel Taylor (Second round review, *Journal of the ASFMRA*)
8. "The Impacts of Non-Local Buyers on Farmland Market in Alabama" with Yingyun Lin*, Mykel Taylor (Second round review, *Journal of the ASFMRA*)

SELECTED WORK IN PROGRESS

(* denote graduate students advised)

1. The Effect of Crop Insurance Subsidy Intensity on Farmers' Net Indemnity: Evidence from Cotton and Peanuts in the U.S. Southeast with Daniel Bolorunduro*
2. "Property Tax, Land Use Transition and Carbon Sink Dynamics: Evidence from Parcel-Level Data in Alabama" with Md Sariful Islam*, Daowei Zhang, and Mykel Taylor
3. "When it rains, it pours? Effect of rainfall shocks on wages of male agricultural labor in India" with Roshan Saha* and Mykel Taylor
4. "Land Tenure and Cover Crop Adoption" with Roderick Rejesus and Serkan Aglasan
5. "How Does Climate Change Influence Mango Production? Empirical Evidence from Taiwan" with Yingyun Lin* and Mykel Taylor

6. "Investigating the Impact of Historical Weather Events on Climate-Smart Practice Adoption using Machine Learning" with Kai Ling*

PRESENTATIONS

- 2026** The Ohio State University AEDE Seminar; SCC-76 Annual Meeting (*scheduled*); Auburn University Seminar (*scheduled*)
- 2025** NC-1210 Annual Meetings; SCC-76 Annual Meetings; AI 2025 Forum; AAEA Annual Meeting
- 2024** Auburn University Department Seminar; Auburn University Auburn Global Program
- 2023** SAEA Annual Meeting; Auburn University Seminar
- 2022** AAEA Annual Meeting; SCC-76/NC-1177 2022 Annual Meeting
- 2021** International Conference on Food Economics and Agricultural Sustainability; AAEA GSS Webinar; NC State University EATD Seminar; Virginia Tech AAEC Seminar; AAEA & WAEA Joint Annual Meeting
- 2020** Northeastern Agricultural and Resource Economics Association Annual Meeting; AAEA Annual Meeting
- 2019** NC State University CEnREP Colloquium

GRANTS

- "Economic Tradeoffs of Biosolid and Biochar Application Across Multiple Spatiotemporal Scales" with Kotryna Klizentyte(PI), Sunjae Won, Daniel Solis, Joseph Bisesi, Paloma Carton de Grammont, Debolina Chakraborty, Katherine Deliz, Davie Kadyampakeni, Ryan Klein, Mary Lusk, Yaniv Olshansky, Rishi Prasad, AJ Reisinger, Ricky Telg, Andrew Zimmerman; AFRI Strengthening Agricultural Systems; \$10,000,000; In preparation
- "Strategic Risk Management in Southeastern Agriculture: Exploring the Interplay Between Irrigation, Crop Insurance, and Cover Crops" with Sunjae Won(PI), Ruiqing Miao, Joochul Lee; NIFA AFRI; \$650,000; Under review
- "Irrigation and Insurance in the Southeast: Advancing Risk Management for Alabama Agriculture" with Sunjae Won(PI); Auburn University; \$50,000; Funded (2025-2027)
- "Innovative Solutions for Improving Water Quality and Strengthening Local Economies in the Gulf of America Watershed" with Debolina Chakraborty(PI), Rishi Prasad, Sanjiv Kumar; EPA; \$865,160; Under review
- "The Impact of Cover Cropping on Crop Yield Resilience to Extreme Weather Events" with Marshall Burke(PI), Emir Malikov, Ruiqing Miao; Stanford; \$81,913; Unfunded
- "Does biochar improve soil health, profitability, climate resiliency, and water quality in southeastern US farms?" with Debolina Chakraborty(PI), Rishi Prasad; Southern Sustainable Agriculture Research and Education (SARE); \$399,617; Pre-proposal selected
- "Development of Sustainable Fortified Bio-pellet from Animal Waste for Enhanced Ecosystem Services" with Rishi Prasad(PI), Debolina Chakraborty, Wilmer Pacheco, Andre Luiz Biscaia Ribeiro da Silva, Camila Rodrigues, Wendiam Sawadgo; USDA NIFA; \$999,585; Unfunded
- "Systems approach for sustainable organic corn and soybean production in Alabama" with Debolina Chakraborty(PI), Rishi Prasad, Scott Graham, Audrey Gamble, Eros Francisco; USDA NIFA; \$1,000,000; Unfunded
- "A Systematic Investigation of Climate-Smart Practices for Improving Sustainability of Cotton Production in Southeastern Coastal Plain Soils" with Debolina Chakraborty(PI), Rishi Prasad; USDA NIFA; \$299,667; Unfunded

PROFESSIONAL SERVICE

Referee Service

- Grant Panel
 - NIFA AFRI Environmental and Natural Resource Economics
 - NIFA AFRI Foundational Knowledge of Agricultural Production Systems
 - Auburn University AAES Internal Grant
- Journal Reviewer

American Journal of Agricultural Economics; Applied Economic Perspectives and Policy; Agribusiness: An International Journal; Agricultural and Resource Economics Review; Agricultural Economics; Alabama Cooperative Extension System; Choices; Journal of Agricultural and Applied Economics; Journal of Agricultural and Resource Economics; Trees, Forests and People; Journal of Forest Economics
- Abstract Reviewer
 - AAEA Annual Meetings; SCC-76 Annual Meetings

Leadership

- President, SCC-76: Economics and Management of Risk in Agriculture and Natural Resources (Multistate Research Project) *2025-*
- Secretary/Treasurer, AAEA Econometrics Section *2025-*
- Forum Organizer, Harnessing Data Science and AI for Collaborative Advances in Production Agriculture (Auburn University-hosted Forum) *2025*

Committee

- Auburn University:
 - AERS Seminar Committee Member *2026-*
 - AERS Search Committee Member *2025-*
 - Graduate Program Committee Member *2025-*
 - AI Task Force Member *2025-*
 - Statistical Computing Coordinator *2024-*

TEACHING EXPERIENCE

Auburn University

- Independent Instructor *Auburn, AL*
- AGECE7590-Introduction to Agricultural Econometrics (Master) *Fall 2022-*
 - Student Evaluation (Average): 5.5/6
 - AGECE5250/AGECE6250-Big Data for Agribusiness Management (Piggyback) *Spring 2023-*
 - Student Evaluation (Average): 5.8/6
 - AGECE8080-Production Economics II (PhD) *Spring 2024-*

- Student Evaluation (Average): 5.5/6
 - AGE7100-Operations Research Methods in Agricultural Economics (Master) *Spring 2024-*
 - Student Evaluation (Average): 5.6/6
- Guest Lecture *Auburn, AL*
- AGE5030-Agricultural Prices (Undergraduate) *Spring 2024,2025,2026*
 - Overview of Federal Crop Insurance (Instructor: Joel Cuffey)
 - AGE7700-Research Methods in Agricultural Economics (Master) *Fall 2025*
 - Overview of Machine Learning and Economics (Instructor: Valentina Hartaska)
- North Carolina State University**
- Independent Instructor *Raleigh, NC*
- ARE336-Introduction to Resource and Environmental Economics (Senior) *Fall 2019-Spring 2022*
- North Carolina State University**
- Graduate Teaching Assistant *Raleigh, NC*
- ARE201A-Introduction to Agricultural and Resource Economics (Junior) *Spring 2021*
 - ARE121-Agribusiness Finance (Freshman) *Spring 2021*
 - ARE132-Management of Personnel (Freshman) *Spring 2021*
 - ARE495-Special Topics in Agricultural and Resource Economics (Senior) *Fall 2020*
 - ARE303-Farm Business Management (Senior) *Fall 2020*
 - ARE336-Introduction to Resource and Environmental Economics (Senior) *Fall 2019*
 - EC201-Microeconomics (Freshman) *Fall 2019*
 - EC201-Microeconomics (Freshman) two sessions, Lab instructor *Spring 2019*
 - EC201-Microeconomics (Freshman) two sessions *Fall 2018*
 - EC413-Industrial Organization (Senior) *Spring 2018*
- Hanyang University**
- Undergraduate Teaching Assistant *Seoul, South Korea*
- ECO2059-Financial Economics (Junior, Lecture in English) *Fall 2009*

ADVISING

Chaired or co-chaired

- Yingyun Liu (PhD in Agricultural Economics, On-going)
- Kai Ling (PhD in Agricultural Economics, On-going)
- Daniel Bolorunduro (MS in Agricultural Economics, On-going)
- Emmanuel Oluwatobi Oyetunji (MS in Agricultural Economics, 2024)

Committee

- Yunei Hua (PhD in Agricultural Economics, On-going)

- Emmanuel Kossy Okonkwo (PhD in Agricultural Economics, On-going)
- Roshan Saha (PhD in Agricultural Economics, On-going)
- Prokash Deb Palash (PhD in Agricultural Economics, On-going)
- Nabin Bhandari (PhD in Agricultural Economics, On-going)
- Sariful Islam (PhD in Applied Economics (Forestry), On-going)
- Devashish Bhandari (MS in Agricultural Economics, On-going)
- Justin Anderson (MS in Agricultural Economics, On-going)
- Sonia Afrin (MS in Agricultural Economics, On-going)
- Quinn La Fontaine (MS in Fisheries, Aquaculture, and Aquatic Sciences, On-going)
- Jisoo Son (PhD in Economics, 2025)
- Azaz Zaman (PhD in Agricultural Economics, 2025)
- Elizabeth Mooneyham (MS in Agricultural Economics, 2024)
- Elizabeth Byrne (MS in Agricultural Economics, 2024)
- Omolola Abisola Bankole (MS in Agricultural Economics, 2024)
- James Scarbrough (MS in Agricultural Economics, 2024)
- Hunter Whatley (MS in Agricultural Economics, 2022)

SCHOLARSHIP

NCSU Graduate Fellowship	<i>2018 - 2022</i>
NCSU Poole College of Management Scholarship	<i>2018 - 2020</i>
Global Human Resource Scholarship, Hanyang University	<i>2005</i>

MILITARY EXPERIENCE

Staff Sergeant at Republic of Korea Air Force, Suwon, South Korea	<i>Dec 2006 - Feb 2009</i>
Division of Budget at Suwon Air Base	

COMPUTING SKILLS

R, Stata, Google Earth Engine, JavaScript, Python, SAS, Matlab, L^AT_EX

NATIONALITY AND LANGUAGES

South Korea (Nationality); United States (Permanent resident); Korean (Native), English (Fluent)

REFERENCE

Barry K. Goodwin (Co-Chair): bkgoodwi@ncsu.edu, (919) 515-4620
Sujit K. Ghosh (Co-Chair): sghosh2@ncsu.edu, (919) 515-2570
Roderick M. Rejesus: rmrejesu@ncsu.edu, (919) 513-4605
Kathryn A. Boys: kaboy@ncsu.edu, (919) 515-2490