

SUNJAE WON

Auburn University
Dept. Agricultural Economics and Rural Sociology
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EMPLOYMENT

Assistant Professor of Production Econometrics
Department of Agricultural Economics and Rural Sociology
Auburn University, AL

Aug 2022 - present

EDUCATION

Ph.D. in Economics
North Carolina State University, Raleigh, NC

Aug 2022

M.A. in Economics
Boston University, Boston, MA
Department of Economics

May 2013

B.A. in Economics and Finance, *cum laude*
Hanyang University, Seoul, South Korea
Department of Economics and Finance

Aug 2011

REFEREED JOURNAL PUBLICATIONS

1. **Won, S.**, R.M. Rejesus, B.K. Goodwin, S. Aglasan. (2024). "Understanding the Effect of Cover Crop Use on Prevented Planting Losses." *American Journal of Agricultural Economics*
2. **Won, S.**, R.M. Rejesus, A. M. Poncet, S. Aglasan, ... and S. B. Mirsky. (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

WORKING PAPERS

(* denote graduate students advised)

1. "Assessing Soil Carbon Sequestration through Cover Crops: The Role of Implicit Costs in Alabama Cotton Fields" with Seong-Hoon Cho and Mykel Taylor (R&R at Applied Economic Perspectives and Policy)
2. "Spatial Patterns of Systemic Crop Yield Risk: Evidence from Corn Yields in the Corn Belt, 1951-2023" with Barry Goodwin and Sujit Ghosh
3. "Exploring a new dimension of agri-food sector safety: The role of livestock farming on food foodborne illness" with Barry Goodwin and Kathryn Boys
4. "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
5. "Land Tenure and Cover Crop Adoption" with Roderick Rejesus and Serkan Aglasan
6. "When it rains, it pours? Effect of rainfall shocks on wages of male agricultural labor in India" with Roshan Saha* and Mykel Taylor (under review)

7. "Uncover the Hidden Production Cycles behind the US Lumber Industry:1965-2017" with Kai Ling* and Wenying Li (under review)
8. "How Does Climate Change Influence Mango Production? Empirical Evidence from Taiwan Journal: Ecological Indicators" with Yingyun Lin* and Mykel Taylor (under review)

SELECTED WORK IN PROGRESS

(* denote students advised)

1. "Understanding the Role of Irrigation Systems in Production Risks and Crop Insurance Participation"
2. "Investigating the Impact of Historical Weather Events on Climate-Smart Practice Adoption using Machine Learning" with Kai Ling*
3. "Decomposing Moral Hazard in Prevented Planting" with Seungki Lee and Jisang Yu

PRESENTATIONS

- | | |
|-------------|--|
| 2025 | NC-1210 Annual Meetings, SCC-76 Annual Meetings, AI 2025 Forum, (<i>scheduled</i>) 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

- "Development of Sustainable Fortified Bio-pellet from Animal Waste for Enhanced Ecosystem Services" with Rishi Prasad(PI), Debolina Chakraborty, Wilmer Pacheco, Andre Luiz Bisciaia Ribeiro da Silva, Camila Rodrigues, Wendiam Sawadgo; USDA - NIFA-National Institute of Food and Agriculture; \$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-National Institute of Food and Agriculture; \$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-National Institute of Food and Agriculture; \$299,667; 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; \$399,617; Under review (pre-proposal selected)

TEACHING EXPERIENCE

Auburn University
Independent Instructor

Auburn, AL

- AGECS080-Production Economics II (PhD) *Spring 2024-Present*
- AGECS7100-Operations Research Methods (Master) *Spring 2024-Present*
- AGECS6250-Big Data for Agribusiness Management (Piggyback) *Spring 2023-Present*
- AGECS7590-Introduction to Agricultural Econometrics (Master) *Fall 2022-Present*

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)
- Emmanuel Oluwatobi Oyetunji (MS in Agricultural Economics, 2024)

Committee

- Roshan Saha (PhD in Agricultural Economics, On-going)
- Prokash Deb Palash (PhD in Agricultural Economics, On-going)
- Jisoo Son (PhD in Economics, On-going)
- Quinn La Fontaine (PhD in Fisheries, Aquaculture, and Aquatic Sciences, On-going)
- Nabin Bjamdari (PhD in Agricultural Economics, On-going)
- Sariful Islam (PhD in Applied Economics (Forestry), On-going)

- 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)

PROFESSIONAL SERVICE

Referee Service

- Journal Reviewer
 - Journal of Agricultural and Resource Economics; Agricultural and Resource Economics Review; Agribusiness: An International Journal; Trees, Forests and People; Applied Economic Perspectives and Policy; Journal of Agricultural and Applied Economics; Agricultural Economics; Choices
- Abstract Reviewer
 - AAEA Annual Meetings, 2021-2024

Leadership

- Forum Organizer, *Harnessing Data Science and AI for Collaborative Advances in Production Agriculture*, 2025
- President (elected), SCC76: Economics and Management of Risk in Agriculture and Natural Resources, 2025-

OTHER PUBLICATIONS

Korea Development Institute. (2016). Impact from Changing Internal and External Conditions on Korea's Consumer Prices. *KDI, Feature Article. 2016 2nd. Seoul, South Korea*

- Principal Investigator: Dr. Sora Chon
- Organized inflation-relevant databases and accomplished decomposition of the inflation by Generalized Method of Moments (GMM)
- Forecast inflation based on estimation of decomposed factors by Vector Error Correction Model (VECM)
- Programs utilized: R, Stata

Korea Development Institute. (2016 January/2017 August). Monthly Economic Trends and Economic Outlook *KDI. Seoul, South Korea* (Periodical, Monthly)

- Maintained and updated inflation-relevant databases including the consumer price index (including agricultural price) and producer price index
- Modeled to predict short-term price indexes for policy recommendations and guidance
- Wrote and presented a monthly report based on in-depth analyses of inflation-relevant conditions
- Programs utilized: Stata

RESEARCH EXPERIENCE

North Carolina State University

Aug 2020-Aug 2022

Research Assistant, Department of Agriculture and Resource Economics

Raleigh, NC

- USDA Agriculture and Food Research Initiative Program (ARFI), (10hrs/wk)
- Principal Investigator: Dr. Barry K. Goodwin
- Investigated the potential for post-harvest risks coverage in the crop insurance
- Identified determinants of foodborne illness outbreaks
- Presented results at 2021 AAEA & WAEA Joint Annual Meeting

North Carolina State University

May 2021 - Aug 2021

Research Assistant, Department of Agriculture and Resource Economics

Raleigh, NC

- NCSU/Hub Partnership Project, (20hrs/wk)
- Principal Investigator: Dr. Roderick M. Rejesus
- Investigated economic benefits of soil health management systems in the Northeast US
- Designed econometric models to study the impact of soil health practices
- Presented results at multiple seminars and expected to submit the paper to the American Journal of Agricultural Economics

Korea Development Institute

Jan 2016 - Aug 2017

Research Associate, Department of Macroeconomic Policy

Sejong, South Korea

- Korean government agency to conduct policy-oriented research, (Full time)
- Principal Investigator: Dr. Sora Chon
- Estimated inflation and its decomposed main descriptive factors by Vector Error Correction Model
- Published results in the Journal of Korean Development Institute

Graduate School of Korea Development Institute

May 2014 - Dec 2015

Research Assistant, Department of Macroeconomic Policy

Seoul, South Korea

- Government-run graduate school to study macroeconomic policy, (Full time)
- Principal Investigator: Prof. Kyung-wook Hur
- Reviewed papers for Regional Financial Arrangement (RFA), Multilateral development banks, and related regulations by Bank for International Settlements around (Basel III)
- Analyzed Global Financial Safety Net data (i.e., Swap lines, International Monetary Fund, RFA)
- Investigated the impact of financial economic policies relevant to Trans-Pacific Partnership
- Published findings as a G20 internal report

SCHOLARSHIP

NCSU Graduate Fellowship

2018 - 2022

NCSU Poole College of Management Scholarship

2018 - 2020

Global Human Resource Scholarship, Hanyang University

2005

MILITARY EXPERIENCE

Staff Sergeant at Republic of Korea Air Force, Suwon, South Korea
Division of Budget at Suwon Air Base

Dec 2006 - Feb 2009

COMPUTING SKILLS

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

NATIONALITY AND LANGUAGES

Nationality: Republic of Korea; Language: English(fluent), Korean(native)

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

2025 February