

Yunan (Anny) Zhu

Fields: Regional Economics, Urban Economics, Applied Econometrics, Climate Change Economics

Department of Agricultural, Environmental and Development Economics
The Ohio State University
227 Agricultural Administration Building
2120 Fyffe Road, Columbus, OH 43210
970-402-5714 • zhu.2904@osu.edu • [website](#)

EDUCATION

- The Ohio State University** Columbus, Ohio
Ph.D. in Agricultural, Environmental, and Development Economics Aug. 2020 – May. 2025 (expected)
Committee: H. Allen Klaiber (Chair), Sathya Gopalakrishnan, Elena Irwin, Yao Wang
Dissertation title: Essays on Land Banks, Foreclosures, and Housing Redevelopment
- Colorado State University** Fort Collins, Colorado
BS in Ecosystem Science and Sustainability (*summa cum laude*) Sep. 2018 – May. 2020
BA in Economics (*magna cum laude*)
Honors Undergraduate Program Scholar
- East China Normal University** Shanghai, China
BS in Ecology Sep. 2015 – Jul. 2020
Awards: First Class Scholarship (2016-2017), University-level Outstanding Students (2016-2017), National Scholarship (2015-2016), University-level Outstanding Students (2015-2016)

WORKING PAPERS

“*The Impact of Land Bank Programs on Neighborhood Foreclosure Risks*” (Job Market Paper)

This study uses a discrete-time duration model to evaluate the impact of land bank acquisitions on foreclosure risk in Columbus, Ohio. Findings show that land bank interventions reduce foreclosure likelihood in the short term, particularly for nearby properties, though the effect diminishes over time and distance. Housing characteristics including price, property age, and loan-to-value ratios also influence foreclosure timing. The study underscores the importance of land banks in neighborhood stabilization and highlights the need for sustained interventions to support long-term recovery.

“*The Spatial Spillover Effect of Land Development Programs on Nearby Home Values*”

This study evaluates the impact of the Columbus, OH land bank program on neighboring housing prices since 2010 using a hedonic model. It investigates the effects of land bank acquisitions and redevelopment (garden vs. non-garden) on nearby property values at varying time scales and distances. The findings show a positive long-term spillover effect and a preference for open spaces, highlighting the land bank program's role in stabilizing neighborhoods and enhancing property values in urban areas.

“*The Impact of WWII Bombings on Urban Redevelopment: A Spatial and Temporal Analysis of Residential Properties in Vienna, Austria*,” with H. Allen Klaiber and Ulrich Morawetz.

This study examines the long-term effects of WWII bombings on urban redevelopment and property ownership in Vienna, Austria. Using parcel-level data and nearest neighbor matching, we assess the impact of bombing on building height, ownership patterns, and private ownership. The findings reveal significant post-war increases in building height, fragmented ownership, and private ownership in bombed areas. Additionally, I explore redevelopment trends using building permits, uncovering a relationship between bombing, property characteristics, and redevelopment dynamics.

“*Barriers to Adaptation: Satellite Evidence of Crop Progress Adjustments in China,*” with Luoye Chen, Yu Chen, Zhihong Ke, Shang Xu under review at *Journal of Development Economics*

This study explores the impact of climate change on agriculture in China, focusing on how crop progress adjusts to changing conditions. Using advanced machine learning to integrate satellite-derived NDVI data with ground observations, the researchers create a high-resolution dataset to estimate crop growth stages. The analysis reveals significant regional differences in adaptation to temperature changes and highlights how proximity to agro-meteorological stations affects farmers' ability to adjust. The study emphasizes that information access is critical for enhancing agricultural resilience, suggesting the need for targeted policies to support adaptation in China's diverse agricultural regions.

TEACHING EXPERIENCE

The Ohio State University

Sole Instructor

Environmental and Natural Resource Economics (AEDECON 4310) Summer 2023

Lab Instructor

Sustainable Economy: Concepts and Methods (AEDECON 4330) Spring 2023, 2024

Teaching Assistant

Food Security and Globalization (AEDE 4532) Fall 2021

Introduction to Sustainability (AEDE 2500) Spring 2022

International Economic Development (AEDECON 4535) Fall 2022, 2023

Food, Population, and the Environment (AEDECON 4597) Fall 2024

WORK EXPERIENCE

Intern, USDA UV-B Monitoring and Research Program (UVMRP), Natural Resource Ecology Laboratory in Fort Collins, Colorado Aug. 2019 – Sep. 2019

- Retrieved high-resolution land surface temperature (LST) maps from Landsat 8 observations in Colorado; reviewed and implemented existing evapotranspiration (ET) retrieval algorithms to retrieve high-resolution ET maps from LST maps in Colorado; adopted deep neural networks to fuse MODIS and Landsat 8 products, producing LST maps in Colorado with both high temporal and spatial resolutions;
- Generated time series of high-resolution ET maps for the Colorado grassland between 2014 and 2018 using the new USGS ARD land surface temperature data;
- Executed the experiment in Google Earth Engine environment, analyzed the spatial and temporal patterns of the generated ET maps, correlated the maps with other environmental and ecological variables to better understand the water stress impact on grassland production in Colorado;
- Read and analyzed tens of literature, practiced application of remote sensing methods.

Participant, Academic Project: The Mediterranean: Past, Present and Future in Haifa, Israel Aug. 2017

- Participated in the full-English instructed summer school project in Israel on geology, biology and resource management; visited Dor Beach, the Golan Heights, Jordan, Sea of Galilee, Caesarea Ruins, etc.;
- Studied about geologic processes that shaped the landform of Mediterranean; joined in fieldwork, observed varied spatial structures and geomorphologies created by different morphogens, adopted quadrat and sampling to evaluate the size of animals in east Mediterranean region; drew geomorphic composite profiles for archives;
- Actively joined in discussions, shared creative ideas with other international participants; tried out courses taught in the Hebrew language.

Intern, Shanghai Weather Bureau in Shanghai, China Aug. 2016 – Dec. 2016

- Studied about how weather report was investigated, planned and delivered; helped practitioners to collect weather data, assisted with data analysis and recording;
- Assisted in verifying statistic data; collated documents and updated and maintained database.

CONFERENCE PARTICIPATION

Presenter. “How Does Public Acquisition of Abandoned Housing Impact the Neighbors?” The 88th Annual Meetings of the Midwest Economics Association, Chicago, IL, March 22-24th, 2024

Presenter. “Building back better? The effect of post disaster assistance on housing development” The 2024 Agricultural & Applied Economics Association Annual Meeting in New Orleans, LA, July 27-30th, 2024

Presenter. “How Does Public Acquisition of Abandoned Housing Impact the Neighbors?” The 1st Graduate Women in Economics Research & Networking Forum, Columbus, OH, April 25th, 2024

SKILLS & QUALIFICATIONS

Software Packages: Stata, Python, MATLAB, R, ArcGIS, LaTeX

Languages: Chinese (native), English (fluent)

SERVICE

Moderator, Session #3837, *Session Title: Environmental Shocks and Housing Market Dynamics*, The 2024 Agricultural & Applied Economics Association (AAEA) Annual Meeting, New Orleans, LA, July 27-30, 2024

REFERENCES

Professor H. Allen Klaiber

Department of Agricultural,
Environmental and Development Economics
The Ohio State University
Phone: 614-247-4914
Email: klaiber.16@osu.edu

Professor Sathya Gopalakrishnan

Department of Agricultural,
Environmental and Development Economics
The Ohio State University
Phone: 614-292-2853
Email: gopalakrishnan.27@osu.edu

Professor Elena Irwin

Dept. of Agricultural,
Environmental and Development Economics
The Ohio State University
Phone: 614-292-6449
Email: irwin.78@osu.edu

Professor Yao Wang

Dept. of Agricultural,
Environmental and Development Economics
The Ohio State University
Phone: 614-247-8992
Email: wang.16488@osu.edu