

Joel Ferguson

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Nelson Institute for Environmental Studies
University of Wisconsin, Madison
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Compiled: 2025-08-19

CURRENT APPOINTMENT

Assistant Professor of Sustainable Land Systems

August 2025 –

Nelson Institute for Environmental Studies
University of Wisconsin, Madison

PREVIOUS APPOINTMENTS

Postdoctoral Fellow

July 2024 - July 2025

Global Policy Lab
Environmental Social Sciences Department
Stanford University

Postdoctoral Fellow

August 2023 – June 2024

Global Policy Lab
Goldman School of Public Policy
University of California, Berkeley

EDUCATION

PhD in Agricultural and Resource Economics

August 2018 – August 2023

University of California, Berkeley
Designated Emphasis (PhD minor): Development Engineering
Dissertation Committee: Marco Gonzalez-Navarro (Chair), Edward Miguel, Maximilian Auffhammer

BS in Economics

August 2012 – May 2016

Tulane University

JOURNAL ARTICLES AND CONFERENCE PROCEEDINGS

"Irrigation Infrastructure and Satellite-Measured Land Cultivation Impacts: Evidence from the Senegal River Valley" *Accepted at Journal of Development Economics*. Abdoulaye Cisse, Alain De Janvry, Joel Ferguson, Marco Gonzalez-Navarro, Samba Mbaye, Elisabeth Sadoulet, and Mame Mor Anta Syll

"Will Wealth Weaken Weather Wars?" (2024) *AEA Papers and Proceedings*, 114. Marshall Burke, Joel Ferguson, Solomon Hsiang, and Edward Miguel

"Survey of open science practices and attitudes in the social sciences." (2023) *Nature Communications* 14, 5401. Joel Ferguson, Rebecca Littman, Garret Christensen, Elizabeth Levy Paluck, Nicholas Swanson, Zenan Wang, Edward Miguel, David Birke, and John-Henry Pezzuto.

"Incorporating High-Frequency Weather Data into Consumption Expenditure Predictions." (2021) *NeurIPS Machine Learning for Development 2021 Proceedings*. Anders Christensen, Joel Ferguson, and Simón Ramírez Amaya.

"Marketing and Technology Adoption and Diffusion." (2020) *Applied Economics: Perspectives & Policy* 42 (1). Amir Heiman, Joel Ferguson, and David Zilberman.

WORKING PAPERS

"Climate Change, Conflict, and the Risk of Economic Collapse in Africa" *Revise and Resubmit at PNAS* (with Marshall Burke, Edward Miguel, and Solomon Hsiang)

"Unexpected air quality and human health benefits of conservation agriculture diffusion" (with Bram Govaerts)

"Reassessing China's Rural Reforms: The View from Outer Space" (with Oliver Kim)

WORKS IN PROGRESS

"A High-Resolution Look at Long-Run Development: Evidence from 1.3 Million Historical Aerial Photographs" (with the Aerial History Project Team)

"Markets and Climate Change Adaptation: Evidence From Minnesota and Wisconsin Farmland Transactions"

"Downscaling Aggregate Maize Yields Using Satellite Imagery and Machine Learning" (with James Sayre and Kangogo Sogomo)

OTHER PUBLICATIONS

"New Evidence on the Economics of Climate and Conflict." (2024) *Handbook on the Economics of Conflict*. Marshall Burke, Joel Ferguson, Solomon Hsiang, and Edward Miguel

"How Much Will Air Quality Improve Thanks to the San Joaquin Valley Agricultural Burning Ban?" (2023) *ARE Update* 26(4). Joel Ferguson

"Energy Prices, the Financial Crisis, and their Implications for Land Policies in California." (2019) *ARE Update* 22(6). JunJie Wu, Steven Sexton, Joel Ferguson, and David Zilberman

GRANTS AND FELLOWSHIPS

STEG PhD Research Grant (w/ Oliver Kim, 14,989 GBP)	2022
Fisher Center PhD Research Grant (w/ Oliver Kim, \$15,000)	2022
Clausen Center PhD Research Grant (w/ Oliver Kim, \$5,000)	2022
CEGA Development Challenge Grant (w/ Oliver Kim, \$14,000)	2021
InFEWS NSF Fellowship Funding (\$34,000 + 1 year tuition & fees)	2020
Federal Language and Area Studies Fellowship (Brazil; \$10,000)	2014

WORK EXPERIENCE

Causal Inference Economist Intern at Amazon	June 2022 – September 2022
Stanford Law Empirical Research Fellowship	October 2016 – July 2018

AWARDS AND HONORS

InFEWS Fellowship	2019
Summa Cum Laude Graduation Honors	2016
Tulane Undergraduate Mathematical Economics Award	2016
Phi Beta Kappa Honor Society	2016

PRESENTATIONS AND WORKSHOPS

2025

IFPRI Applied Microeconomics and Development Seminar; The Workshop for Environmental Economics and Data Science; Big Sky Workshop on the Economics of Agriculture and the Environment; Agricultural and Applied Economics Annual Meeting

2024

Ohio State University Agricultural, Environmental, and Development Economics Seminar; Population Association of America Annual Meeting; Agricultural and Applied Economics Association Annual Meeting; SPIA Fest; International Conference of Agricultural Economists; Urban Economics Association North American Meeting; Online Summer Workshop in Environmental, Energy, and Transportation Economics; Southern Economics Association Annual Meeting; North East Universities Development Consortium

2023

Heartland Environmental and Resource Economics Workshop; The Workshop on Environmental Economics and Data Science; Measuring Development; American Geophysical Union Annual Meeting; North East Universities Development Consortium

2022

The Workshop on Environmental Economics and Data Science; Machine Learning in Economics Summer Institute; CEQA Global Workshop

2021

NeurIPS Machine Learning for Development; Association of Environmental and Resource Economists Summer Conference; CGIAR SPIA Webinar Series; Pacific Conference for Development Economics; Online Summer Workshop in Environmental, Energy, and Transportation Economics

2020

Young Economist Symposium; Giannini Foundation of Agricultural and Resource Economics Student Conference

SERVICE

Global Policy Lab Social Chair	2024
Environmental Economics and Policy Honors Thesis Co-Advisor for Yuli (Shirly) Xue	2022-2023
Giannini Agricultural and Resource Economics Student Conference Co-Organizer	2022
Berkeley Environmental Economics and Policy Students Mentor	2021-2022
Economists for Equity at Berkeley High School Outreach Committee	2021-2022
UC Berkeley ARE Faculty Search Committee Student Representative	2021-2022
UC Berkeley ARE PhD Admissions Committee	2020-2021
UC Berkeley ARE Diversity, Equity, and Inclusion Undergraduate Outreach Subcommittee	2020-2022
InFEWS Student Council	2020-2022

REFEREEING

PNAS, American Journal of Agricultural Economics, Journal of Development Economics, Journal of Health Economics, Climate Change Economics, Environment and Development Economics

SKILLS

Python, R, Google Earth Engine, QGIS, Stata, SQL/POSTGRES, \LaTeX

PROFESSIONAL AFFILIATIONS

Association of Environmental and Resource Economists, Agricultural and Applied Economics Association, American Economics Association, American Geophysical Union, International Association of Agricultural Economists