Zhiyun Li

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Education

Ph.D.	Applied Economics and Management	**Cornell University**	2023
	Dissertation Committee: Ariel Ortiz-Bobea, Shanjun Li, and Jawad Addoum		
M.A.	Statistics	Columbia University	2016
B.A.	Economics	Huazhong University of Science and Technology	2014
B.S.	Computer Science	Huazhong University of Science and Technology	2014

Published Papers

On the Timing of Relevant Weather Conditions in Agriculture

Zhiyun Li, Ariel Ortiz-Bobea

Journal of Agricultural and Applied Economics Association, 2022

A GNN-RNN Approach for Harnessing the Geospatial and Temporal Information: Application to Crop Yield Prediction

Joahusa Fan, Junwen Bai, **Zhiyun Li**, Ariel Ortiz-Bobea, and Carla P.Gomes

Thrity-Sixth AAAI Conference on Artificial Intelligence, 2022

Best paper award at the NeurlPS Climate Change and AI Workshop

Working Papers

Adaptation to Climate Risks: Evidence from Wildfires and US Manufacturing Firms (job market paper)

Zhiyun Li

Abstract: I assess the impact of wildfires on US manufacturing firms to shed light on the potential for adaptation to increased climate risks. I first study the short-run impacts of more than 10,000 large wildfires on the financial performance of publicly and privately held manufacturing firms (the intensive margin) between 1997 and 2018. I find robust evidence that wildfire exposure reduces sales and productivity of establishments. Wildfires appear 75 percent less damaging to establishments in wildfire-prone municipalities compared to their counterparts in low-risk areas, reflecting the role of adaptation in mitigating wildfire damages. I further explore firms' relocation decisions to privately mitigate against wildfire risk (the extensive margin). I employ a distance-based difference in differences (DID) approach, using changes in addresses of publicly traded firms from 1990 to 2014. I find that establishments in the vicinity of large wildfires (within 20km) exhibit a higher level of relocation than their counterparts located further away (outside of the 20km radius) after wildfire events. Moreover, among the establishments that have changed addresses, those located closer to wildfires are more likely to shift operations towards safer areas after wildfire events, suggesting private adaptive responses to increased climate risks.

The Potential of Going Solar and Local Farmland Value

Zhiyun Li, Ariel Ortiz-Bobea

Abstract: To mitigate the impact of climate change, New York state has set ambitious renewable energy goals. In this context, there is a growing need for land to be used as community-scale or utility-scale solar farms. A large portion of the land is likely to be transitioned from current farmland that satisfies ideal conditions for solar farms (e.g., close to roads, flat, and clear of trees). For farmland owners, the transition seems logical since their income may be significantly higher from solar farms compared to agricultural rental income. Thus, the potential of the farmers' land to be used for solar production may represent more profitable economic returns in the future. To the extent the cost of the transition from farmland to solar production (e.g., the distance between farmland and substations) as well as some other factors (e.g., local electricity demand), the potential of going solar is likely to increase local agricultural land value, which is largely unexplored. In this study, we investigate the causal relationship to provide policy implications for renewable energy policies.

Impact of Market Power in the Supply Chain on the Incidence of Climate Risk: Evidence from US Meat-processing firms

Zhiyun Li

Description: In this project, I seek to understand if market power in the meat processing industry changes how drought impacts farmers, food processing firms, and consumers. The idea for this paper came from a report published on the White House Website. According to economists at the White House, during the pandemic, large intermediary meatpacking companies generated record profit, while consumers were hit with high prices. This event highlights the influence of these intermediary companies on the food market. It raises the question of whether these companies exert influence in extracting economic rents during other supply disruptions, such as those driven by climate-related shocks.

Conference Presentations

Wildfire and Establishment Sales
AERE Virtual Summer Conference, June 2021
WEAI's session on "Climate Change Impact", June 2021

On the Timing of Relevant Weather Conditions in Agriculture
ASSA Annual Meeting, Boston, Massachusetts, January 2022

Climate Change Adaptation: Evidence from Wildfires and US Manufacturing Firms
AAEA Annual Meeting, Anaheim, California, July 2022

Professional Experience

Dyson School of Applied Economics and Management, Cornell University
Research Assistant, 2021-2022

Food Policy, 2021
Journal Reviewer

Services

Brown Bag Seminar on Climate Impacts, Dyson School of Applied Economics, Cornell, Summer 2022
Coordinator

AASA's session on "Climate Change and Agricultural Production", 2022

Session Organizer

WEAI's session on "Climate Change Impact", 2021
Session Organizer

Applied Microeconomics Workshop, Dyson School of Applied Economics, Cornell, Fall 2020
Coordinator

Skills

Causal inference
Extensive experience in applying panel data model, difference in differences, machine learning, and other approaches

Excellent skills in processing and analyzing large data sets (including large spatial data) using R

Proficient in programming with R, GIS, and Stata

Awards

Ph.D. Fellowship
Dyson School of Applied Economics and Management, **Cornell University**, 2016

National Scholarship
Department of Economics, **Huazhong University of Science and Technology**, 2016

Teaching

AEM 2500, Environmental and Resource Economics (75 students), Cornell University
Teaching Assistant, Fall 2021

AEM 2601, Strategy (105 students), Cornell University
Teaching Assistant, Spring 2020

AEM 5550, Advertising Strategy (46 students), Cornell University
Teaching Assistant, Fall 2019

AEM 2500, Environmental and Resource Economics (80 students), Cornell University
Teaching Assistant, Spring 2019

AEM 6061, Risk Simulation and Monte Carlo Methods (56 students), Cornell University
Teaching Assistant, Spring 2018

AEM 2350, Introduction to the Economics of Development (72 students), Cornell University
Teaching Assistant, Fall 2017

Languages

Chinese (native)
English (fluent)

September 2022