



## **Lucy Hackett**

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Doctoral Studies University of California, Berkeley

PhD, Agricultural and Resource Economics, Expected completion May 2026

DISSERTATION: "Essays in Environmental and Urban Economics"

PRIMARY FIELDS: Environment

SECONDARY FIELDS: Development, Urban/Spatial Economics

Associate Professor Marco Gonzalez-Navarro

marcog@berkeley.edu +1 (510) 390-4720

Department of Agricultural & Resource Economics

Assistant Professor Kirill Borusyak

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Department of Agricultural
& Resource Economics

Professor Lucas Davis lwdavis@berkeley.edu Haas School of Business Professor Joseph Shapiro
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Department of Agricultural
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Placement Officers Professor Sofia Villas-Boas sberto@berkeley.edu +1 (510) 409-4341 Professor Marco Gonzalez-Navarro marcog@berkeley.edu +1 (510) 390-4720 Diana Lazo lazo@berkeley.edu +1 (510) 642-3345

Prior Education **University of Oregon** 

**CIDE** 

B.Sc. in Economics and Spanish Literature

Master's Degree in Economics

2015

2018

2020

2019

2022, 2023

2021, 2022, 2023

2021, 2022, 2023

Teaching

UC Berkeley Instructor, Microeconomics

Master's in Development Practice

UC Berkeley Teaching Assistant, Graduate Econometrics

PhD Agricultural and Resource Economics

UC Berkeley Instructor, Training for New Graduate Student Instructors

UC Berkeley

CIDE Instructor, Graduate Macroeconomics

Master's in Economics

CIDE Instructor, Macroeconomics

Economics (undergraduate)

CIDE Teaching Assistant, Macroeconomics 2017, 2018, 2019

Economics (Graduate and undergraduate)

Languages

English (native), Spanish (fluent)

Grants,	2025	UC Dissertation Fellowship (\$37,000)		
Fellowships,	2025	CEGA Development Economics Challenge Grant (\$5,000)		
and Awards	Clausen Center for International Trade Research Grant (\$5,00			
	2024	Fisher Center for Real Estate Research Grant (\$15,000)		
	2023	Fisher Center for Real Estate Research Grant (\$15,000)		
	2023	Giannini Foundation Minigrant (\$35,000)		
	2022	2 ARE travel grant (\$2,000)		
	2021	Tinker Field Research Grant (\$2,000)		
	2021	Outstanding Graduate Student Instructor Award		
	2018	Best applied thesis, Class of 2018, CIDE		
	2015	Phi Beta Kappa		
	2015	Oregon 6		

## Research Papers

## "Land Subsidence: Environmental risk in housing markets in Mexico City" (JOB MARKET PAPER)

with Carolina Rodriguez-Zamora

We study the costs of and the housing market response to subsidence, the sinking of land areas due to groundwater over-extraction, in Mexico City. We propose an equilibrium model of the housing market that features housing re-development in the face of an evolving environmental hazard that has both realized and expected future impacts to home quality. Guided by model-derived estimating equations for key parameters of the model, we exploit quasi-random variation in sinking intensity to estimate the impact of both realized and future subsidence on home values. We find that realized subsidence imposes substantial costs, which are driven by physical degradation to the structure, increased maintenance investment, and impacts to public infrastructure. However, prices are unresponsive to measures of expected future sinking, and novel survey evidence on residents' beliefs and information about sinking suggest that information frictions affect the ability of homebuyers to capitalize predictable future risk. Units that have experienced more sinking are more likely to be redeveloped, as these have lower opportunity cost of being re-built. Evaluating welfare using our parameter estimates implies that subsidence costs Mexico City \$34.2 billion USD in economic costs, 12 % of which are due to information frictions that inefficiently increase the housing stock in risky areas. Our findings show that groundwater depletion imposes a costly externality on the built environment, and that frictions affecting the capitalization of environmental hazards in the housing market exacerbate these costs by putting more value in harm's way.

## Research in Progress

**Talks** 

2025

NEUDC (upcoming)

**"Estimating the Gains from Water Trade: A Systematic Evaluation of Modeling Considerations"** with Nell Green Nylen, Ellen Bruno, Andrew Ayers, Michael Kiparsky, Josué Medellín-Azuara, and Sarah Null *Draft available upon request.* 

The gains from water trading can vary significantly depending on local conditions as well as the specifics of market design and implementation. However, models of water trading necessarily rely on assumptions that simplify the social, institutional, and environmental landscape within which a water market operates. We systematically evaluate peer-reviewed papers that estimate the gains from water trading to assess how models of water markets take this local context into account. Our results demonstrate that whether and how models incorporate key considerations varies widely, with implications for the accuracy of results. We find that estimates of the economic impacts of water trading in the published literature are more likely to consider distributional effects and incorporate features of the legal and regulatory environment than to account for third-party impacts, transaction costs, the consequences of trading for the economy at large, or the administrative costs associated with setting up and operating a market. Understanding what features a model takes into account is important for interpreting its policy implications. Researchers modeling the gains from trade could better support local decision makers by explicitly articulating their models' capabilities and limitations.

"Differential subsidence, damages and fragility: Evidence from a systematic analysis in Mexico City" with Enrique Fernández-Torres

Understanding the structural vulnerability of buildings and public infrastructure to differential subsidence is crucial to evaluating the risks and costs that subsidence poses in urban areas. We combine novel estimates of plot-specific differential subsidence in Mexico City with a representative resident survey of structural issues in private residents and public infrastructure to estimate structural fragility curves and damage thresholds. We then extrapolate these findings from micro-data to a city-wide analysis, calculating damages and vulnerability at a city block level.

laiks	2023	NEODE (upcoming)	
	2025	The Occasional Workshop of Environmental and Resource Economics (upco	oming)
	2025	North American Meeting of the Urban Economics Association (upcoming)	
	2025	Environment Week at the London School of Economics	
	2025	AERE Summer meeting	
	2024	LACEA Urban Workshop	
	2024	SobreMéxico Conference, Universidad Iberoamericana	
	2024	UC Berkeley Development workshop	
	2023, 2024	UC Berkeley Trade workshop	
Activities	2024	Berkeley Economists for Equity (BEE) Mentor	
	2023	Department of Agricultural and Resource Economics Graduate Admissions	Committee
	2022	Department of Agricultural and Resource Economics Search Committee	
	2020 - 2022	Department of Agricultural and Resource Economics DEI committee	
Prior	UC Berkeley	y, Graduate Student Researcher (Marco Gonzalez-Navarro)	2023-2025
Employment	UC Berkeley	y, Graduate Student Researcher (Ethan Ligon)	2022
	UC Berkeley	y, Graduate Student Researcher (Ellen Bruno)	2023
	UC Berkeley	y, Graduate Student Researcher (Joseph Shapiro, Andrés Rodríguez-Clare)	2021
		boratory for Public Policy (LNPP), Analyst	2018-2020
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