

Esther M. Shears

Ph.D. Candidate, Energy & Resources Group, University of California, Berkeley
+1 (530) 391-0621 ♦ esther_shears@berkeley.edu ♦ @esther_shears

Esther studies the intersection of climate change, environmental governance, and decarbonization policy.

EDUCATION

University of California, Berkeley Ph.D. Candidate, Energy & Resources Group, Expected 2023
Dissertation: *De-Risking the Financial System & the Role of the State in the Decarbonization Transition*
Committee: Dr. Jonas Meckling, Dr. David Anthoff, and Dr. Daniel Kammen

University of California, Berkeley Master of Public Policy, Goldman School of Public Policy, 2019
Master of Science, Energy & Resources Group, 2019

Occidental College Bachelor of Arts, Economics with Honors, 2014
Minors: Philosophy, Art History & Visual Arts
Distinctions: Phi Beta Kappa (Junior Bete Inductee), Magna cum Laude, Dean's List

PUBLICATIONS

- Guy, J., **Shears, E.**, & Meckling, J. (2023). [National Models of Climate Governance Among Major Emitters](#). *Nature Climate Change* 13, 189-195.
- Meckling, J., Galeazzi, C.*, **Shears, E.***, Xu, T., & Anadon, L. (2022). [Energy innovation funding and institutions in major economies](#). *Nature Energy* 7 (9), 876-885.
- Nagaraj, A.*, **Shears, E.***, & de Vaan, M*. (2020). [Improving data access democratizes and diversifies science](#). *Proceedings of the National Academy of Sciences* 117 (38), 23490-23498.

*Equal contribution

AWARDS & FELLOWSHIPS

- European Union's Horizon 2020 research and innovation programme (Grant Agreement No 853050), European Research Council, 2022
- Alex Farrell Memorial Graduate Fellowship Fund, UC Berkeley, 2017, 2018, 2020
- Fellow for Innovation at the Nexus of Food, Energy and Water Systems (InFEWS), National Science Foundation, 2019
- Pre-Dissertation Research Grant, UC Berkeley Institute of International Studies, 2019
- Outstanding Graduate Student Instructor, UC Berkeley Graduate Division, 2018
- Swift Family Fellowship, UC Berkeley, 2016
- Assistant Attorney General Honorary Award for the Comcast/TWC Team, U.S. DOJ-ATR, 2015

PROFESSIONAL WORK & RESEARCH EXPERIENCE

Department of Economics, University of Bologna Bologna, Italy
Research Fellow Jan 2022 - present

Serving as a senior researcher of the SMOOTH project (Sustainable Finance for a Smooth Low-Carbon Transition), in collaboration with RFF-CMCC European Institute on Economics & the Environment (EIEE) under advisement of Dr. Emanuele Campiglio. Investigating the distributional effects of unilateral carbon pricing policies (with or without carbon border adjustment mechanisms) on production and trade networks

in the global economy. The goal of this work is to design climate policies that will minimize harm to low-income countries and shift the cost-burden to the economies most historically responsible for greenhouse gas emissions.

e-axes Forum (remote)
Short-Term Researcher Apr – Dec 2021
Developed a taxonomy of existing research on climate change, macroeconomics, and finance. This work involved devising classification rules based on current literature and areas for future research, and creating an interactive visualization tool for academics, policymakers, and central bankers.

College of Natural Resources, University of California, Berkeley Berkeley, CA
Graduate Student Researcher Jun – Aug 2019 & Jun – Sep 2020
Worked with Dr. Jonas Meckling for a multi-paper project: *The Politics of Innovation: The Durability and Growth of Low-Carbon RD&D Policy*. Data collection, writing country-specific case study reports, conducting qualitative analysis on government agencies that administer, support, and conduct clean energy research, development, and deployment.

Terra.do – Online School for Climate Change (remote)
Climate Finance Contributing Expert Jun – Jul 2020
Assisted Dr. Kamal Kapadia with the development of a course on climate finance, providing key resources and content. Served as a subject expert and advised students in office hours on climate finance topics.

The World Bank Group (remote)
Short-Term Consultant Sep 2019 – Feb 2020
Produced a white paper on the economics of geospatial data with Dr. Abhishek Nagaraj. This work discusses the various approaches to valuing geospatial data, the methodologies used to estimate this value, and how governments can shape this value through public provision of geospatial data infrastructure.

For a Human Future, a working project by Richard Hayes San Francisco, CA
Consultant May 2019
Reviewed and commented on the *Working Paper of the Human Future's "Expanded Outline" and "Scenarios Using the Nordhaus DICE and RICE Models."* Provided feedback on the analysis, checked for accuracy, and suggested directions for future inquiry. Project details: <https://www.forahumanfuture.org>

Sustainable Agriculture Education (SAGE) Berkeley, CA
Climate Finance Consultant Jan – May 2019
Contributed to the Bay Area Food Futures project by developing a preliminary report: *Charting a Path to a Resilient Regional Food System*. Assessed options to bolster agricultural production in the Bay Area and strategized how to make a vital food system a priority for regional climate resilience.

Haas School of Business, University of California, Berkeley Berkeley, CA
Graduate Student Researcher Jan 2018 – Aug 2018
Researched the Land Remote-Sensing Commercialization Act of 1984 and the impact of Landsat privatization on academic research. Used Landsat metadata and Elsevier publications data in a differences-in-differences model to find that privatization of Landsat led to a decrease in earth and environmental science-related academic research. Work conducted under guidance of Dr. Abhishek Nagaraj.

World Resources Institute Berkeley, CA
Climate Policy Consultant Jan – May 2017

Synthesized research and conducted interviews with industry experts to develop a process guide for state legislators looking to expand renewable energy policy. Drafted *Best Practices for Promoting Renewable Energy Development in the United States: A Guidebook for States* for WRI Senior Fellow Karl Hausker.

U.S. Department of Justice, Antitrust Division

Washington, D.C.

Statistician & Research Analyst

Jun 2014 – Apr 2016

Worked in the Economics Analysis Group with PhD economists and attorneys on merger, acquisition, and anti-competitive practice investigations. Analyzed large company datasets to assess pricing and sales trends, product margins, and key competitors. Created data visualizations, industry timelines, and maps of geographic markets. Compiled industry research, project memos, and assisted Dr. Robert Arons and Dr. Alex Raskovich on their 2016 working paper *Do Bigger Firms Get Better Terms? Evidence from Pay TV*.

TEACHING EXPERIENCE

Certificate of Teaching and Learning in Higher Education, University of California, Berkeley

2021

Graduate Student Instructor (GSI), University of California, Berkeley

Jan 2017 – May 2021

Courses taught:

- International Monetary Economics, with Dr. Maurice Obstfeld
Spring 2021 student evaluation: 6.34/7.00
- Climate Change Economics, with Dr. David Anthoff
Fall 2020 – Head GSI student evaluation: 6.90/7.00
Summer 2020 (with Dr. Sam Evans) student evaluation: 6.97/7.00
Fall 2019 – Head GSI student evaluation: 6.88/7.00
Fall 2018 – Head GSI student evaluation: 6.72/7.00
Fall 2017 student evaluation: 6.88/7.00
- Business Innovation for Sustainability, Social Responsibility, & Positive Impact, with Dave Rochlin
Summer 2019
- Industrial Organization & Public Policy, with Dr. Aaron Edlin
Spring 2019 student evaluation: 6.38/7.00
- Macroeconomic Analysis, with Dr. Martha Olney
Spring 2017 – Head GSI student evaluation: 6.00/7.00

Led discussion sections and labs of 15-35 students, held office hours, planned lessons and in-class group activities, designed midterms, graded assignments and exams. Head GSI responsibilities included leading weekly coordination among other graduate student instructors on lessons, grade standardization, and administrative duties for the professor on record.

PRESENTATIONS

- Expert presentation to IEA and OECD staff (*pending May 2023*)
 - “Energy Innovation Funding and Institutions in Major Economies”
- Berkeley Initiative for Transparency in the Social Sciences 9th Annual Meeting, UC Berkeley (2021)
 - “Improving Data Access Democratizes and Diversifies Science”
- *Guest lecturer*. Invited to speak by professor of record:
 - “Fundamentals for Building an Integrated Assessment Model in Excel” for Climate Change Economics (David Anthoff) (2019, 2020, 2021)
 - “Price Discrimination” for Industrial Organization & Public Policy (Aaron Edlin) (2019)
- YSI Finance, Law, and Economics Working Group’s Finance & Social Justice Workshop on EU’s Action Plan to Financing Sustainable Growth, University of Glasgow (2019)

ACADEMIC MEMBERSHIPS & AFFILIATIONS

- Association for Public Policy Analysis and Management, member
- American Association of Environmental and Resource Economists, member
- European Association of Environmental and Resource Economists, member
- Italian Association of Environmental and Resource Economists, member
- Society, Environment and Economics Lab, UC Berkeley (PI: David Anthoff), member
- Energy & Environment Policy Lab, UC Berkeley (PI: Jonas Meckling), member
- RFF-CMCC European Institute on Economics and the Environment (EIEE), Affiliated Scientist

SERVICE

- Local Organizing Committee for EAERE 2022 27th Annual Conference, Mar - Jun 2022
- ERG Student Advocacy Committee for Equity and Inclusion (Energy & Resources Group student organization), active member Jan 2019 - Jan 2022
My main contribution as part of this group was leading a years-long effort to develop the now-active ERG Social Climate Box (an internal resource that ERG community members can use to suggest climate and ethics improvements for our community, as well as report concerns, or give kudos), in coordination with the department's Diversity Committee.
- UAW Local 2865 (union for University of California graduate student instructors), Department Steward May 2019 - Aug 2020
- Graduate Student Inclusivity Training, UC Berkeley Restorative Justice Center, selected participant for a 3-day training workshop Feb 2020
- ERG Space Committee (department group for organizing and creating cohesive working spaces), Committee Chair Aug 2017 - May 2020
- ERG Mentorship Program, mentored new graduate students Fall 2017 - Spring 2019
- ERG Visit Day Committee, member Mar 2017 - Aug 2019

SKILLS

- Proficient in: R, Python, STATA, LaTeX, GitHub, Azure, QGIS, ArcGIS, Tableau, MS Office Suite (Excel)
 - Working knowledge of: MATLAB, Julia, SAS, PostgreSQL, MS SQL, Adobe Photoshop
-