## Jesse Fleischer Buchsbaum


**Contact Information**

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**Academic Appointments**

Postdoctoral Scholar, University of Chicago Energy & Environment Lab, July 2022 - Present

**Doctoral Education**

University of California, Berkeley
PhD, Agricultural and Resource Economics, May 2022
Primary Field: Environmental and Resource Economics
Secondary Field: Industrial Organization

Graduate Student Researcher, The Energy Institute at Haas

| Professor Meredith Fowlie | ProfessorJames Sallee | Professor Catherine Hausman |
|---|---|---|
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| Department of Agricultural & Resource Economics | Department of Agricultural & Resource Economics | Ford School of Public Policy |

**Research Interests**

Energy and Environmental Economics; Applied Microeconomics

**Prior Education**

**UC Berkeley**, Berkeley, CA USA

M.S. Agricultural and Resource Economics, May, 2018

**University of Michigan**, Ann Arbor, MI USA

B.S. Economics and Mathematics, May, 2015

**Grants and Awards**

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| 2022 | Outstanding Graduate Student Instructor Award |
| 2021 | Energy Institute at Haas and The Opportunity Lab Initiative on Equity in Energy and Environmental Economics ($5,250) |
| 2021 | J-PAL North America's COVID-19 Recovery and Resilience Initiative ($50,000) |
| 2017 | NSF Graduate Research Fellowship Program honorable mention |
| 2015 | Osterweil Prize (Awarded by University of Michigan Department of Economics for "an outstanding record in economics and the greatest degree of social awareness") |
| 2015 | Graduated with High Honors (Awarded by the University of Michigan Department of Economics) |

**Research Papers**

**Long-run price elasticities and mechanisms: Empirical evidence from residential electricity consumers** (Job Market Paper)

Long-run elasticities are difficult to empirically estimate, and credible quasi-experimental estimates of long-run elasticities are rare, especially in the energy economics literature. However, long-run elasticities are crucial for calculating welfare, forecasting demand, and evaluating policy. In this paper, I leverage a novel source of plausibly exogenous long-lasting price variation for one of the first quasi-experimental estimates of the long-run price elasticity of demand for residential electricity consumers. I find that consumers are much more responsive to prices in the long run than the short run, with a long-run elasticity estimate of -2.4, in contrast with a short-run elasticity estimate of -0.36. Furthermore, I explore some of the mechanisms driving this price response, and find that

residential adoption of rooftop solar alone can explain 26% of the observed response in consumption. My findings highlight the impact of price-based policies, and suggest that these types of policies may be more effective than previously thought in inducing energy transitions to cleaner technologies.

**Spillovers from Ancillary Services to Wholesale Power Markets** with Catherine Hausman, Johanna L. Mathieu, and Jing Peng. Accepted at The RAND Journal of Economics and NBER Working Paper. Past version available here.

In electricity markets, generators are rewarded both for providing energy and for enabling grid reliability. The two functions are compensated with two separate payments: energy market payments and ancillary services market payments. We provide evidence of changes in the generation mix in the *energy* market that are driven by exogenous changes in an *ancillary services* market. We provide a theoretical framework and quasi-experimental evidence for understanding the mechanism, showing that it results from the multi-product nature of power plants combined with discontinuities in costs. Although research in economics typically focuses solely on the energy market, our results suggest that spillovers between markets are important as well. Furthermore, policy changes relating to grid operations, grid reliability, or climate change could have unintended effects.

## Research in Progress

**Exploring bill affordability for low income electricity customers in California**
with Meredith Fowlie

The COVID-19 pandemic and resulting economic recession made it challenging for many customers to pay their bills on time. Utilities across the country have adopted a number of short-term solutions to assist customers with bill payment, often allowing customers to temporarily accumulate debts without immediate consequences. While these interventions offered much-needed short-term assistance, they are unsustainable in the long term. As we come out of the crisis, it remains an open question which policy levers should be pushed to effectively help utility customers recover from the debts that have accumulated. In this project, in collaboration with East Bay Community Energy (EBCE), we run randomized experiments that allow us to estimate how low-income customers respond to policies that reduce electricity prices and/or provide temporary debt relief. We use standard economic methods to evaluate how each intervention changes customers' behaviors in electricity bill payment, electricity consumption, and payment of other bills, and explore what drives behavioral changes by considering treatment effect heterogeneity. The results of this study will provide insight into the mechanisms that drive utility customer behaviors in payment and consumption, as well as the policy instruments that will be most effective in recovering from the current crisis.

## Presentations

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| 2023 | Western Economics Association International (WEAI) Annual Conference |
| 2023 | Association of Environmental and Resource Economists (AERE) Summer Conference |
| 2023 | Midwest Economics Association (MEA) Annual Conference |
| 2021 | AERE Summer Conference |
| 2020-21 | UC Berkeley Electricity Markets Seminar |
| 2020-21 | UC Berkeley Environmental and Resource Economics Seminar (ERE) |
| 2020 | Giannini Foundation of Agricultural and Resource Economics Student Conference (GARESC) |

## Teaching

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| 2021 | Graduate Student Instructor, *Regulation of Energy and the Environment*, Meredith Fowlie, UC Berkeley |
| 2018 | Reader, *Introductory Applied Econometrics*, Sofia Villas-Boas, UC Berkeley |
| 2017 | Reader, *Introductory Applied Econometrics*, Sofia Villas-Boas, UC Berkeley |

## Prior Employment

**Environmental Law & Policy Center**, Chicago, IL USA
*Economic Policy Associate* June 2015 - June 2017

## Professional and Service Activities

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| 2021 | Mentor, Energy Institute and Opportunity Lab Undergraduate Initiative on Equity in Energy and Environmental Economics |
| 2020-22 | Founder and organizer, Economics of Race and Equity Reading Group, UC Berkeley |
| 2020-22 | Member, Diversity, Equity, and Inclusion Subcommittee on Research and Pedagogy, UC Berkeley |
| 2020 | Conference organizer, Giannini Foundation of Agricultural and Resource Economics Student Conference (GARESC) |