

Patrick Baylis

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Education

- 2016 PH.D. in Agricultural and Resource Economics, University of California, Berkeley (expected May 2016)
 - Areas of specialization: Applied microeconomics, applied econometrics, environmental economics, climate change economics, energy economics
 - Dissertation Committee: [Max Auffhammer](#) (chair), [Severin Borenstein](#), [Meredith Fowlie](#), [Solomon Hsiang](#)
- 2012 M.S. in Agricultural and Resource Economics, University of California, Berkeley
- 2008 B.A. in Political Science/International Relations, Carleton College

Job Market Paper

[TEMPERATURE AND TEMPERAMENT: EVIDENCE FROM A BILLION TWEETS](#)

I combine observations from a geographically and temporally dense corpus of more than a billion Twitter status updates with sentiment analysis and machine learning algorithms in order to understand preferences for temperature, with implications for climate change.

Work Experience

- 2011-2015 GRADUATE STUDENT RESEARCHER, Energy Institute at Haas
- 2009-2011 SUSTAINABILITY CONSULTANT, Ackerstein Sustainability
- 2008-2009 MANAGEMENT CONSULTANT, Arcadia Solutions

Grants, Honors & Awards

- 2015 Giannini Foundation grant (joint with Judson Boomhower)
- 2013 Outstanding Graduate Student Instructor award
- 2008 Phi Beta Kappa, Carleton College
- 2006, 2007 Dean's list, Carleton College

Research

WORKING PAPERS

DEFAULT EFFECTS, FOLLOW-ON BEHAVIOR AND WELFARE IN RESIDENTIAL ELECTRICITY PRICING PROGRAMS (with [Peter Cappers](#), [Meredith Fowlie](#), [Anna Spurlock](#), [Annika Todd](#), and [Catherine Wolfram](#))

- We study default effects in the context of a large randomized controlled trial of electricity pricing strategies. By comparing results from both opt-in and opt-out treatment groups, we estimate the effect of the program on customers who only enroll in the program when placed in an opt-out treatment group.

WORKS IN PROGRESS

PROJECTING THE IMPACT OF CLIMATE CHANGE ON U.S. ELECTRICITY LOAD (with [Max Auffhammer](#) and [Catherine Hausman](#))

- Using a panel of disaggregated electricity demand consumption data that covers the entire United States, we link a statistically estimated relationship between temperature and load to a set of 20 climate models to predict changes in electricity demand.

WILDFIRE AND INSURANCE IN A CHANGING CLIMATE (with [Judson Boomhower](#))

- We model and empirically investigate the interaction between spatial spillovers of wildfire prevention and the competitive structure of the fire insurance industry.

THE PSYCHOLOGICAL IMPACTS OF CLIMATE CHANGE (with [Nick Obradovich](#))

- Using large datasets on human expressions, we identify psychological channels through which climate change will impact economic outcomes.

THE IMPACT OF AIR POLLUTION ON COGNITIVE EXPRESSION (with [Nick Obradovich](#), [Josh Graff Zivin](#), and [Matt Neidell](#))

- We investigate the effect of air pollution on cognitive impairment using multiple novel measures of cognitive capacity from the social media platform Twitter.

CRITICAL GAS: MEASURING THE BICYCLE USAGE RESPONSE TO GAS PRICES

- I construct estimates of the bike usage elasticity to changes in the price of gas, employing a novel panel dataset constructed from Google searches over time.

Teaching

2013

GRADUATE STUDENT INSTRUCTOR, ARE212: Multiple Equation Estimation

- Graduate econometrics; [Max Auffhammer](#), instructor
- Section [material](#) applies economic theory to empirical data work using R
- Received Outstanding Graduate Student Instructor award

Languages

HUMAN

English (fluent), French (semi-fluent), Spanish (beginner)

PROGRAMMING

R, Stata, Python, SQL, Julia, MATLAB, ArcGIS

Presentations

2015

October 23: UC-Berkeley (Energy Institute Seminar)
October 17: University of Illinois (Heartland Workshop)
September 25: UC-Berkeley (ARE Seminar)
September 4: University of Colorado (Vail Workshop)
July 15: UC-Berkeley (Climate Workshop)
July 13: UC-Berkeley (Energy Institute Research in Progress Seminar)
June 5: Associate of Environmental and Resource Economics Annual Conference (Sponsored presenter)
April 16: UC-Berkeley (Climate Change Economics Lunch)

2014

October 27: UC-Berkeley (Energy Institute Research in Progress Seminar)
April 25: UC-Berkeley (Energy Institute Research in Progress Seminar)

Service

ADMISSIONS COMMITTEE, Student representative, University of California Berkeley
MEMBER, American Economic Association
MEMBER, Association of Environmental and Resource Economists