

# Patrick W. Baylis

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## Education

**University of California, Berkeley**, Berkeley, CA

July 2011 - Present

- Fourth year **Ph.D candidate**, Agricultural and Resource Economics (Expected 2016)
- **Fields**: Environmental economics, development economics
- **Research focus**: I use modern techniques from computer science to develop new datasets aimed at answering foundational questions in environmental economics.

**Carleton College**, Northfield, MN

September 2004 – June 2008

- B.A. in Political Science/International Relations

## Teaching

**Graduate Student Instructor** for ARE212: Multiple Equation Estimation

January 2014 – May 2014

- Maximilian Auffhammer, instructor
- Second course in graduate applied econometric sequence, covers the linear model
- Section material covers application of econometric theory to actual data work in *R*

## Work Experience

**Research Assistant, Energy Institute @ Haas**

June 2012 - Present

- Research assistant to Maximilian Auffhammer on projects related to climate change and transportation
- Research assistant to Severin Borenstein on projects related to electricity use and solar adoption
- Extensive use of **STATA**, **Matlab**, **ArcGIS**, **R**, and **Python**

**Research Consultant**, Ackerstein Sustainability

October 2009 – July 2011

- Guided businesses, non-profits, and universities in their pursuit of LEED-EB certification for more than 20 buildings over two years.

## Job Market Paper

- **Temperature and Temperament: Measuring human affect using Twitter data**
  - Using a geographically and temporally dense corpus of Twitter status updates with nearly half a billion observations, I measure the effect of temperature on human mood, with implications for climate change.

## 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 are able to estimate the effect of the program on "complacent" customers, i.e. customers who only enroll in the program when placed in opt-out treatment group.
- **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.

## Works in progress

- **Projecting the Impact of Climate Change on US 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 simulate changes in future electricity demand.
- **Wildfire and Adaptation in a Changing Climate** (with Judson Boomhower)

- We exploit the exogenous shock of a wildfire to explore the efficiency of casualty insurance markets in the Wildland Urban Interface.

#### *Grants and Awards*

**Giannini Foundation** grant (joint with Judson Boomhower) Fall 2015 – Present  
 • Provides ongoing funding for **Wildfire and Adaptation in a Changing Climate**  
**Outstanding Graduate Student Instructor** (GSI) award Spring 2015

#### *Invited Presentations*

##### 2015

April 16: UC-Berkeley (Climate Change Economics Lunch speaker)  
 June 5: Associate of Environmental and Resource Economics Annual Conference (Sponsored presenter)  
 July 13: UC-Berkeley (Energy Institute Research in Progress Seminar speaker)  
 July 15: UC-Berkeley (Climate Workshop guest speaker)

##### 2014

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

#### *Committees*

Student representative, Fall 2015 admissions committee