Patrick W. Baylis

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Education

University of California, Berkeley, Berkeley, CA July 2011 - Present

- Fifth year **Ph.D candidate**, Agricultural and Resource Economics (Expected 2016)
- **Fields**: Environmental economics, development economics
- **Research focus**: I specialize in developing new datasets to answer questions of importance to environmental economics, specifically those related to climate and energy. My research supplements traditional techniques in applied econometrics with modern approaches from computer science, psychology, and computational linguistics.

Carleton College, Northfield, MN September 2004 – June 2008

- B.A. in Political Science/International Relations

Job Market Paper

- **Temperature and Temperament**
  - I combine observations from a geographically and temporally dense corpus of Twitter status updates with more than a billion observations with sentiment analysis algorithms from computational linguistics in order to measure the effect of temperature on hedonic state, with implications for climate change.

Teaching

Graduate Student Instructor for ARE212: Multiple Equation Estimation January 2014 – May 2014

- Maximilian Auffhammer, instructor
- Application of econometric theory to emprical data work in *R*
- Received Outstanding GSI Award

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
- **STATA**, **R**, **Python, Julia, Matlab**, **ArcGIS**

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.

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.
- **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.