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

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.

Honors

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

Working papers

- **Temperature and Temperament**
  - 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.
- **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.

Work in progress

- **Projecting the Impact of Climate Change on US Electricity Load** (with Max Auffhammer)
  - 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.