

MATTHEW RIDGE BUTNER
Ph.D. Candidate, University of Colorado, Boulder

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RESEARCH INTEREST

Environmental and energy economics, industrial organization, applied microeconometrics

EDUCATION

- Ph.D. University of Colorado, Boulder, Economics, 2019 (expected)
- M.A. University of Colorado, Boulder, Economics, 2015

- B.A. University of South Florida, Economics 2013
- B.S. University of South Florida, Environmental Science and Policy, 2013
summa cum laude, Minor Mathematics

RESEARCH

Working papers

- “Pass-through of increased renewable generation in wholesale electricity markets”
- “Concentration effects of heterogeneous standards: refinery response to the Clean Air Act”

Works in progress

- “Incentives for private public bundling as a provision for public goods”
- “Real time electricity pricing as an imperfect emissions policy, what is second best?”

CONFERENCES AND PRESENTATIONS

- Heartland Environmental and Resource Economics Workshop, 2017 (poster)
- CU Workshop on Environmental and Resource Economics, 2017
- Western Economic Association Annual Meeting, AERE session, 2017
- Southern Economic Association Annual Meeting, AERE session, 2016, 2017
- Economic History Association Annual Conference, 2016 (poster)
- Front Range Energy Camp, 2016, 2017
- University of Colorado Boulder Environmental Brown Bag, x4

AWARDS & HONORS

- Graduate Award for Public Policy Research, University of Colorado Boulder, 2017
- Domestic Travel Grant, University of Colorado Boulder, 2016, 2017
- Partial Academic Fellowship, University of Colorado Boulder, 2013-2014, Fall 2016
- Alumni Scholarship, University of South Florida, Fall 2012
- Sustainability Scholar, University of South Florida, Spring 2012
- Burton Memorial Scholarship in Economics, University of South Florida, Fall 2011
- Presidential Scholarship, University of South Florida, 2009-2013

REFERENCES

- Primary Academic Advisor: Jonathan Hughes, jonathan.e.hughes@colorado.edu
- Additional references can be made available upon request

INTERESTS: Outdoors, running, biking, hiking, camping.

ABSTRACTS

Pass-through of increased renewable generation in wholesale electricity markets

Renewable generation has become a significant portion of the American electrical grid as the associated costs have declined, the technological efficiency has improved, and public policies have supported investment and production. The extent to which increased renewable generation is realized as a reduction in fuel costs by the generators of electricity, or is translated into a reduction in the market price paid by consumers, has implications for investment decision and effective policy design. In this paper, I use rich micro-data on generator strategies in wholesale electricity markets within the US Midcontinent Independent System Operator, from 2014 to 2016, to quantify the pass-through rate of increased renewable generation onto market price. Results indicate the pass-through rate of increased wind generation depends on the slope of the residual demand curve as well as the ownership of the generation assets, as legacy fossil fuel generators can curtail their generation offer to keep the market price high.

Concentration effects of heterogeneous standards: refinery response to the clean air act amendments

Sometimes environmental regulations will alter the geographic and product markets in which firms compete. This can impact the firm's ability to exercise market power, and profits subsequently. The boutique fuel standards related to the 1990 Clean Air Act Amendments did exactly this to the petroleum refining industry by mandating unconventional, cleaner burning, fuels to be used in certain counties of the United States. While the production of the cleaner fuel increased the fixed and variable cost of refineries, it also allowed them to recuperate lost profits by selling their product in a more concentrated market with a higher markup. Using a latent profit approach, I show evidence the change in profitability offset investment cost in contrast to industry claims. I then construct and simulate a model of spatial Cournot competition, where the refineries behave as multiproduct firms with capacity constraints. This supports the observed pattern of investment and exit.

TEACHING EXPERIENCE

Graduate Instructor, University of Colorado Boulder
Intermediate Microeconomic Theory, Fall 2017
Statistics with Computer Applications, Spring 2017
Intermediate Microeconomic Theory, Spring 2016
Departmental Tutor, University of Colorado Boulder
Economics Department, Fall 2014 - Spring 2015
Teaching Assistant & Recitation Leader, University of Colorado Boulder
Environmental Economics (Fall 2016), Intermediate Microeconomics (Fall 2015),
Statistics with Computer Applications (Summer 2015), Principles of Macroeconomics
(Spring 2014), Principles of Microeconomics (Fall 2013)
University Tutor, University of South Florida
Mathematics, Statistics, and Economics, Summer 2010 – Summer 2013

OTHER EXPERIENCE

Sloan Technology Primer in Electricity for Social Scientists, Summer 2017
Sloan Summer School in Environmental and Energy Economics, Summer 2016
Research Assistant for Professor Wolfgang Keller & Carol Shiue, AY 2015
NSF Research Experience for Undergraduates in Microeconomics at Tulane, Summer 2012
Environmental Education Intern at Learning Gate Community School, Spring 2013
Legislative Intern for County Commissioner Al Higginbotham, Fall 2012
Environmental Conservation Campaign Leader, Gulf Restoration Network, Summer 2009