

# BRIAN C. PREST



## RESEARCH AREAS

Applied Econometrics · Energy Economics · Environmental Policy

## POSITIONS

2020– Fellow, RESOURCES FOR THE FUTURE  
2018–2020 Postdoctoral Fellow, RESOURCES FOR THE FUTURE  
2011–2013 Senior Analyst, NERA ECONOMIC CONSULTING  
2009–2011 Analyst, CONGRESSIONAL BUDGET OFFICE (CBO)  
2006 & 2007 Research Intern, THE BROOKINGS INSTITUTION

## EDUCATION

2013–2018 Duke University  
PH.D., ENVIRONMENTAL & RESOURCE ECONOMICS · 2018  
M.A., ECONOMICS · 2014  
2005–2009 Williams College  
B.A., ECONOMICS · 2009

## PEER-REVIEWED PUBLICATIONS

How Clean is “Refined Coal”? An Empirical Assessment of a Billion-Dollar Tax Credit

*Coal subsidies & air quality*

Assessing the effectiveness of, and legal compliance with, coal tax credits. Co-author: Alan Krupnick. Working paper available at [RFF](#). Forthcoming at *Energy Economics*.

Prices versus Quantities with Policy Updating

*Environmental policy design*

Dynamic modeling of the economics of inter-temporal environmental policy when policies are updated over time. Co-author: Billy Pizer. *Journal of the Association of Environmental and Resource Economists*, 7, no. 3 (May 2020): 483-518. Working version available at [NBER](#).

Peaking Interest: How awareness drives the effectiveness of time-of-use electricity pricing

*Machine learning & electricity demand*

Using machine learning to determine the key factors driving consumer responses to time-of-use electricity pricing. *Journal of the Association of Environmental and Resource Economists*, 7, no. 1 (January 2020): 103-143. Working version available [here](#).

## The Unconventional Oil Supply Boom: Aggregate Price Response from Micro-data

*Economics of shale/tight oil*

Econometrically estimating the effects of the shale revolution on the price elasticity of U.S. oil supply. Co-author: Richard Newell. *The Energy Journal*, 40, no. 3 (May 2019). Working version available [here](#).

## Trophy Hunting vs. Manufacturing Energy: The Price-Responsiveness of Shale Gas

*Economics of shale gas*

Econometric analysis of the effects of advanced drilling technology (hydraulic fracturing and horizontal drilling) on the price elasticity of U.S. natural gas supply. Co-authors: Richard Newell, Ashley Vissing. *Journal of the Association of Environmental and Resource Economists*, 6, no. 2 (March 2019): 391-431.

## Explanations for the 2014 Oil Price Decline: Supply or Demand?

*Oil markets and price formation*

Time series econometrics analyzing the relative contributions of supply and demand factors to the decline in global oil prices in 2014. *Energy Economics*, 74 (August 2018): 63-75.

### WORK IN PROGRESS

## The GDP-Temperature Relationship: Implications for Climate Change Damages

*Economic impacts of temperature*

Estimating the economic impacts of temperature, and the implication for damages of climate change—in context of model uncertainty by using cross-validation techniques. Co-authors: Richard Newell, Steven Sexton. Working paper available at [RFF](#). Conditionally accepted at the *Journal of Environmental Economics and Management*.

## A Discounting Rule for the Social Cost of Carbon

*Social cost of carbon & discounting*

Estimating an empirically-driven discounting rule for the Social Cost of Carbon in an integrated assessment framework with stochastic economic growth and discount rates. Co-authors: Richard Newell and Billy Pizer. *Revisions requested*.

## Supply side reforms to oil and gas production on federal lands: Modeling the implications for climate emissions, revenues, and production shifts

*Oil & gas drilling on federal lands*

Modeling the emissions and revenues impacts of reforming policies on oil and gas development on US federal lands, in context of the threat of production leakage to state and private lands. *Under review*.

### REPORTS AND OTHER WRITING

2020 · Richard Newell, Daniel Raimi, Seth Villanueva, and Brian Prest, [The Global Energy Outlook 2020: Energy Transition or Energy Addition?](#), RFF Report

2020 · Brian Prest, [Discounting 101](#), RFF Explainer Series

2019 · Contributing author, [IPBES Global Assessment of Biodiversity and Ecosystem Services](#)

2017 · Richard Newell and Brian Prest, [How the Shale Boom Has Transformed the US Oil and Gas Industry](#), RFF Issue Brief

2011 · Terry Dinan and Brian Prest, [The Effects of Renewable or Clean Electricity Standards](#), CBO Report

2010 · Paige Piper-Bach and Brian Prest, [Immigration Policy in the United States: An Update](#)

## AWARDS, GRANTS & HONORS

- 2020 · *Federal Oil and Gas Leasing Reform* research grant, The Wilderness Society, PI, \$50,000.
- 2018-20 · *Postdoctoral Fellowship*, Alfred P. Sloan Foundation/Resources for the Future.
- 2017-8 · *Fisher Dissertation Fellow-in-Residence*, Resources for the Future.
- 2017-8 · *Joseph L. Fisher Doctoral Dissertation Fellowship*, Resources for the Future. \$18,000.
- 2017 · Student Paper Award, United States Association for Energy Economics (USAEE)
- 2016 · *The Economics of Energy Markets* Grant (with Richard Newell), National Bureau of Economic Research (NBER), Department of Energy, and National Science Foundation (NSF). \$23,000.
- 2016 · *Duke University Summer Research Fellowship*, Stuart Irwin Harris Fellowship.
- 2016-8 · *Energy Doctoral Student Fellow*, Duke University Energy Initiative.
- 2015 · *Pathfinder Fellow*, Data Expedition Grant, Information Initiative at Duke (*iiD*).
- 2014 · *Duke Environmental Economics Doctoral Scholars Fellowship* (DEEDS), Nicholas Institute for Environmental Policy Solutions.
- 2011 · *CBO Director's Award*, the agency's highest honor, granted annually to a select few individuals for exceptional achievement.
- 2009 · *Highest Honors* for a senior thesis in Economics, Williams College.
- 2009 · *Jack Larned 1942 International Management Prize*, for best undergraduate paper "dealing with the management of development in governments and private or public enterprises in African, Asian, or Latin American countries".
- 2008 · *Class of 1960 Scholar*, Economics, Williams College.
- 2007 · *Mead Internship Program*, policy internship sponsorship, Williams College.

## INVITED PRESENTATIONS

- 2020 · AEA Annual Conference (San Diego, CA), National Council for Science and the Environment (Washington, DC), AERE Virtual Summer Conference (My Home Office, Falls Church, VA), Duke University (*ibid.*).
- 2019 · Environmental Protection Agency (Clean Air Markets Division), Congressional Budget Office, AERE Summer Conference (Lake Tahoe, NV), Southern Economic Association (Fort Lauderdale, FL)
- 2018 · London School of Economics, Virginia Tech, University of Georgia, Environmental Protection Agency (NCEE), Resources for the Future, Federal Reserve Bank of Dallas
- 2017 · United States Association of Energy Economics (USAEE) Conference (Houston, TX), Colorado University Environmental and Resource Economics Workshop (Vail, CO), Camp Resources XXIV Conference (Wrightsville Beach, NC), AERE Summer Conference (Pittsburgh, PA), AEA Annual Conference (Chicago, IL)
- 2016 · Camp Resources XXIII Conference (Wrightsville Beach, NC), AERE Summer Conference (Breckenridge, CO), NBER Environmental and Energy Economics Conference (Cambridge, MA), Rice University (Houston, TX)

## REFEREE SERVICE

*American Economic Journal: Economic Policy (AEJ:EP)*, *Journal of the Association of Environmental and Resource Economists (JAERE)*, *Journal of Environmental Economics and*

*Management (JEEM), The Energy Journal, Energy Economics, Energy Policy, Economic Inquiry, Climate Policy, Journal of Environmental Economics and Policy, Resource and Energy Economics*

#### IN THE NEWS

LA Times, *Boiling Point*, Sammy Roth, January 28, 2021, “Oil and gas companies say they support climate action. Are they serious?”

Colorado Public Radio, Sam Brasch and Miguel Otrola, January 27, 2021, “What Bidens Pause On Oil And Gas Leases On Federal Lands Means For Colorado”

S&P Global Market Intelligence (SNL), Ellier Potter and Mark Passwaters, January 27, 2021, “Biden pauses new oil, gas leases on federal lands pending Interior review”

S&P Global Market Intelligence (SNL), Taylor Kuykendall, January 13, 2021, “Audit of US coal tax credit set to expire in 2021 underway by federal watchdog”

LA Times, Sammy Roth, December 17, 2020, Paper cited in “Boiling Point: Obama wouldnt keep fossil fuels in the ground. But Biden says he will”

S&P Global Market Intelligence (SNL), Bill Holland, September 17, 2020, “Carbon charge on federal leases could balance CO<sub>2</sub> cuts, revenue needs study”

Yale Climate Connections podcast, September 2, 2020, “A costly subsidy for ‘refined coal’ is failing to achieve air pollution goals, researcher finds”

E&E News, Dylan Brown, Dylan Brown, March 2, 2020, “Report: ‘Clean coal’ credit fails emissions, cost tests”

S&P Global Market Intelligence (SNL), Taylor Kuykendall, March 2, 2020, “Study says US refined coal tax credit boosts CO<sub>2</sub> emissions by propping up plants”

Forbes, Ken Silverstein, January 6, 2020, “The Giving Season May Be Over But Not For Coal And Fossil Fuels”

E&E News, Dylan Brown, December 27, 2019, “Dems demand audit of ‘clean coal’ tax credit”

S&P Global Market Intelligence (SNL), Taylor Kuykendall, December 24, 2019, “US senators call for probe into tax credit for refined coal”

Reuters, Tim McLaughlin, December 23, 2019, “U.S. senators ask for government investigation of coal tax credit program”

E&E News, Dylan Brown, June 11, 2019, “Dems attack tax credit that may not cut pollution”

S&P Global Market Intelligence (SNL), Taylor Kuykendall, June 10, 2019, “3 Senate Democrats call on IRS to review refined coal credit program”

New York Times, U.S. News and World Report, Reuters, Tim McLaughlin, June 10, 2019, “U.S. Senators Target \$1 Billion a Year Coal Subsidy, Ask IRS for Test Results”

Utility Dive, Gavin Bade, August 22, 2018, “EPA’s new ACE rule is a coal lifeline ‘disguised as a GHG regulation,’ critics say”

RTO Insider, Rich Heidorn Jr., June 11, 2018, “Five Questions on Trumps Coal, Nuke Bailout”

Forbes, Ryan Kellogg, June 7, 2018, “If Oil Prices Climb, The U.S. Is Less Able To Play The Role Of Swing Producer Than Some Think”

Forbes, Ryan Kellogg, March 5, 2018, “U.S. Shale Boom Has Led To Big Payoffs, But Energy Independence Isn’t One – Nor Should It Be”

Wall Street Journal, Grep Ip, February 21, 2018, “America’s Emerging Petro Economy Flips the Impact of Oil”

S&P Global Platts, November 10, 2017, “Interview: US oil reacts quicker to price, but remains far from swing producer”

## TEACHING

Instructor, Calculus Review, Duke Nicholas School Master of Environmental Management  
Teaching Assistant for Billy Pizer, Climate Change Economics and Policy  
Teaching Assistant for Matthew Harding, Applied Big Data Science  
Teaching Assistant for Steven Sexton, Energy Economics and Policy  
Teaching Assistant for Steven Sexton, Resource and Environmental Economics

## SKILLS

### *Subjects*

Econometrics<sup>†</sup> · Economic Modeling · Energy Economics<sup>†</sup> · Environmental Policy<sup>†</sup> · Machine Learning<sup>†</sup> · Scuba Instructor (PADI)<sup>†</sup>

### *Programming*

*Advanced:* R<sup>†</sup> · Matlab · Stata · L<sup>A</sup>T<sub>E</sub>X

*Familiar:* Python · VBA

<sup>†</sup>Teaching Experience