

BRIAN C. PREST

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Last updated August 18, 2020, click [here](#) for the latest version

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

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](#). *Revisions requested*.

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](#). *Under review*.

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. *Under review*.

Supply side reforms to oil and gas production on federal lands: 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. *In progress*.

Economic Growth Uncertainty Increases the Social Cost of Carbon

Social cost of carbon & uncertainty

Using analytical and simulation modeling to demonstrate the impacts of uncertainty in economic growth on the Social Cost of Carbon. *In progress*.

Informing SPR Policy Through Oil Futures and Inventory Dynamics

Oil reserve management

Econometric modeling of crude oil prices, futures spreads, and inventories, to analyze impacts of the Strategic Petroleum Reserve. Co-author: Richard Newell. Available at [NBER](#) and [RFF](#). *In progress*.

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)

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

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”](#)

RFF Blog, with Karen L. Palmer, June 7, 2018, [“A Strategic Electricity Generating Reserve: Not Enticing Enough to Add to the Menu”](#)

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[†] · Economic Modeling · Energy Economics[†] · Environmental Policy[†] · Machine Learning[†] · Scuba Instructor (PADI)[†]

Programming

Advanced: R[†] · Matlab · Stata · L^AT_EX

Familiar: Python · VBA

[†]Teaching Experience