RYAN KELLOGG Harris School of Public Policy, University of Chicago

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Appointments

Deputy Dean for Academic Programs, Harris Public Policy, 2018 – present Professor, Harris Public Policy, University of Chicago, 2016 – present Research Associate, National Bureau of Economic Research, 2012 – present Associate Professor, Department of Economics, University of Michigan, 2012 - 2016 Visiting Researcher, Energy Institute at Haas, 2011 – 2012 Faculty Research Fellow, National Bureau of Economic Research, 2009 – 2012 Assistant Professor, Department of Economics, University of Michigan, 2008 – 2012

Degrees

- Ph.D. University of California, Berkeley, Agricultural and Resource Economics, 2008
- M.Sc. University of California, Berkeley, Agricultural and Resource Economics, 2004
- B.A. Rice University, Economics, 1999
- B.Sc. Rice University, Chemical Engineering, 1999

Editorial positions

Editorial Board, *American Economic Journal: Economic Policy*, 2016 - present Associate Editor, *RAND Journal of Economics*, 2015 - present Associate Editor, *International Journal of Industrial Organization*, 2013 – 2016

Journal publications

- Kellogg, Ryan, "Output and Attribute-Based Carbon Regulation Under Uncertainty", *Journal of Public Economics* 190 (October, 2020), 104246.
- Anderson, Soren T., Ryan Kellogg, and Stephen W. Salant, "Hotelling Under Pressure", *Journal of Political Economy* 126 (June, 2018), 984-1026.
- Kellogg, Ryan, "Gasoline Price Uncertainty and the Design of Fuel Economy Standards", *Journal of Public Economics* 160 (April, 2018), 14-32.
- Albouy, David, Walter Graf, Ryan Kellogg, and Hendrik Wolff, "Climate Amenities, Climate Change, and American Quality of Life", *Journal of the Association of Environmental and Resource Economists* 3 (March, 2016), 205-246.
- Anderson, Soren T., Ryan Kellogg, Ashley Langer, and James M. Sallee, "The Intergenerational Transmission of Automobile Brand Preferences: Empirical Evidence and Implications for Firm Strategy", *Journal of Industrial Economics* 63 (Dec., 2015), 763-793.

- Hausman, Catherine and Ryan Kellogg, "Welfare and Distributional Implications of Shale Gas", *Brookings Papers on Economic Activity* (spring 2015), 71-125.
- Kellogg, Ryan, "The Effect of Uncertainty on Investment: Evidence from Texas Oil Drilling", *American Economic Review* 104 (June, 2014), 1698-1734.
- Borenstein, Severin and Ryan Kellogg, "The Incidence of an Oil Glut: Who Benefits from Cheap Crude Oil in the Midwest?" *Energy Journal* 35 (Jan., 2014), 15-33.
- Anderson, Soren T., Ryan Kellogg, and James M. Sallee, "What Do Consumers Believe About Future Gasoline Prices?" *Journal of Environmental Economics and Management* 66 (Nov., 2013), 383-403.
- Borenstein, Severin, Meghan Busse, and Ryan Kellogg, "Career Concerns, Inaction, and Market Inefficiency: Evidence from Utility Regulation", *Journal of Industrial Economics* 60 (June, 2012), 220-248.
- Kellogg, Ryan, "Learning by Drilling: Inter-Firm Learning and Relationship Persistence in the Texas Oilpatch", *Quarterly Journal of Economics* 126 (Nov., 2011), 1961-2004.
- Auffhammer, Maximilian and Ryan Kellogg, "Clearing the Air? The Effects of Gasoline Content Regulation on Air Quality", *American Economic Review* 101 (Oct., 2011), 2687-2722.
- Anderson, Soren T., Ryan Kellogg, James M. Sallee, and Richard T. Curtin, "Forecasting Gasoline Prices Using Consumer Surveys", *American Economic Review Papers & Proceedings* 101 (May, 2011), 110-114.
- Kellogg, Ryan and Hendrik Wolff, "Daylight Time and Energy: Evidence from an Australian Experiment", *Journal of Environmental Economics and Management* 56 (Nov., 2008), 207-220. Recipient of the 2009 *JEEM* best paper award.

Book chapters

- Borenstein, Severin and Ryan Kellogg, "Challenges of a Clean Energy Transition and Implications for Energy Infrastructure Policy", in *Rebuilding the Post-Pandemic Economy*, Melissa S. Kearney and Amy Ganz, Eds. Washington, DC: Aspen Institute Press (2021), 234-271.
- Covert, Thomas R. and Ryan Kellogg, "Ensuring Americans Receive Fair Value for U.S. Oil and Gas Resources", in *U.S. Energy & Climate Roadmap: Evidence-based Policies for Effective Action*. Energy Policy Institute at the University of Chicago (2021), 148-159.
- Kellogg, Ryan and Mar Reguant, "Energy and Environmental Markets, Industrial Organization, and Regulation", in *Handbook of Industrial Organization*, *volume 5*, Ali Hortaçsu, Kate Ho, and Alessandro Lizzeri, Eds. Elsevier (2021), 615-742.

Working papers

- Herrnstadt, Evan, Ryan Kellogg, and Eric Lewis, "The Economics of Time-Limited Development Options: The Case of Oil and Gas Leases", NBER working paper #27165 (2020). Revise-and-resubmit at *Econometrica*.
- Borenstein, Severin and Ryan Kellogg, "Carbon Pricing, Clean Electricity Standards, and Clean Electricity Subsidies on the Path to Zero Emissions", working paper (2022).

Covert, Thomas R. and Ryan Kellogg, "Crude by Rail, Option Value, and Pipeline Investment", NBER working paper #23855 (2018).

Inactive working papers

Kellogg, Ryan, "The Pollution Haven Hypothesis: Significance and Insignificance" (2007).

Grants and awards

NSF Grant #1919499, "Productivity, Efficiency, and Distortions in the U.S. Shale Boom", 2019 (PI, \$536,738)

Eric Zitzewitz Award, 2019

American Economic Review Excellence in Refereeing Award, 2018

NSF Research Traineeship (NRT) Grant for "Computational Data Science to Advance Research at the Energy-Environment Nexus", 2017 (co-I, \$3,000,000)

Alfred P. Sloan Foundation Grant for NBER program to support pre-doctoral fellowships in energy economics, 2015 (co-PI, \$724,500; renewed in 2018 for \$750,375)

Alfred P. Sloan Foundation Grant for NBER research initiative on the Economics of Energy Infrastructure, 2015 (co-PI, \$588,800)

MITRE Faculty Research Award for "Asymmetric Information, Royalty Distortions, and Drilling Deadlines: Understanding Oil and Gas Lease Contracts," 2014 (\$8,000)

Ralph C. d'Arge and Allen V. Kneese Award for Outstanding Publication in the *Journal of Environmental Economics and Management*, 2009

Sloan Industry Studies Program Site Visit Grant, 2009 (co-PI, \$4,400)

Berkeley Competition Policy Center Dissertation Award, 2009

Sloan Industry Studies Dissertation Award, First Prize, 2008

Coleman Fung Risk Management Grant for "The Effect of Uncertainty on Investment: Evidence from Texas Oil Drilling," 2007

Coleman Fung Risk Management Grant for "Principal-Agent Incentives, Excess Caution, and Market Inefficiency: Evidence from Utility Regulation," 2007

Teaching

Harris Public Policy, University of Chicago

Undergraduate economics for public policy (intro course). Mean evaluation score: 4.4

Undergraduate industrial organization and regulation. Mean evaluation score: 4.7

Evening masters economics for public policy (intro course). Mean evaluation score: 4.4

Masters industrial organization and regulation. Mean evaluation score: 4.5

PhD energy and environmental economics. Mean evaluation score: 4.8

Economics Department, University of Michigan

Undergraduate industrial organization. Mean evaluation score: 4.6

PhD industrial organization. Mean evaluation score: 4.9

PhD resource and environmental economics. Mean evaluation score: 4.8

Teaching evaluations are on a 1 to 5 scale; scores shown are the mean over all years taught

Industry experience

BP (formerly British Petroleum): June 1999 – July 2003 (Houston, TX and Anchorage, AK) Well test engineer; economic analyst for the Alaska Gas Pipeline Project and Alaska oilfield developments

Conference and Workshop Presentations

Research presentations: AEA Annual Meeting (2009, 2010, 2018), AERE Summer Conference (2008, 2011, 2013, 2016, 2019), Aspen Economic Strategy Group (2021), Bank of Canada Workshop on Commodity Super Cycles (2015), Bern Energy Economics Workshop (2021), CEPR Conference on Applied IO (2019), Cowles Structural Microeconomics Conference (2011), Economics of Low Carbon Markets Workshop, Ribeirão Preto, Brazil (2014), EIA Workshop on Financial and Oil Market Linkages (2014), Energy Institute at Haas Energy Camp (most years 2007-2019), Heartland Environmental and Resource Economics Workshop (2016), Heinz-Tepper IO Conference (2019), International IO Conference (2006, 2009), Iowa State Bioenergy Camp (2010), Maryland Workshop on Environmental Taxation (2018), Midwest Energy Fest (2016), MSU / UM / Wayne State Summer Energy and Environmental Economics Workshop (2008, 2009, 2010, 2012), NBER Corporate Associates Research Symposium (2015), NBER EEE (summer 2009, winter 2010, summer 2017), NBER EEE-IO (winter 2014), NBER IO (summer 2007, summer 2010, summer 2013, summer 2018), NBER-ICRIER Neemrana Conference, India (2015), Northeast Workshop on Energy Policy and Environmental Economics (2012), Occasional California Workshop in Environmental and Resource Economics (2006, 2008), PERC Workshop on Innovation, Property Rights, and Structures of Energy (2017), POWER Conference on Energy Research and Policy (2007, 2009), SITE summer workshop (2011, 2019), UC IGCC Workshop on the Environment and Human Capital (2012), UM Conference on Transportation, Economics, Energy, and the Environment (2016), Utah Winter Business Economics Conference (2019), Winter Marketing-Economics Summit (2015-2018)

Discussant: AEA Annual Meeting (2009, 2010, 2011, 2013, 2015, 2016, 2017), Alliance for Research on Corporate Sustainability (2009), Harrington Fellows Conference on IO (UT Austin, 2014), International IO Conference (2006, 2009), NBER EEE (summer 2010, summer 2015, winter 2018, summer 2021), NBER IO (summer 2011), NBER Conference on Economics of Innovation in the Energy Sector (2020), Northeast Workshop on Energy Policy and Environmental Economics (2013), Occasional California Workshop in Environmental and Resource Economics (2008), University of Chicago and RFF Conference on Energy Policy (2011), University of Michigan Erb Institute (2009), Yale Marketing-IO Conference (2013)

Seminar presentations

Aalto (2016), Analysis Group (2016), Arizona State (2011, 2020), Australia National University (2015), Bank of Canada (2010, 2012), Case Western (2014), Columbia (Econ (2016,2019), GSB (2009)), Cornell (2012), Dallas Fed (2017), Duke (2009, 2015, 2016), EPA (2011), Federal Reserve Board (2016), FGV-Rio (2017), Harvard (KSG (2009)), Harvard/MIT (joint (2009)), Indiana (Kelley (2010, 2018)), Iowa State (2017), Kansas City Fed (2014), Mannheim (2016), Michigan State (2008, 2009), MIT (Econ (2014), Sloan (2008, 2012)), Monash (2015), Montana State (2017), Northwestern (Econ (2016), Kellogg (2011)), Norwegian School of Economics (2016), NYU Stern (2011, 2019), Oberlin (2018), Ohio State

(2009, 2013), Oxford (OxCarre (2015)), Penn State (2016), Pitt/CMU (joint (2018)), Princeton (Econ (2014), Wilson (2013)), Property and Environment Research Center (2017), PUC-Chile (2017), PUC-Rio (2017), Resources for the Future (2011), Rice (2011, 2017), Simon Fraser (2018), Stanford (Econ (2018), GSB (2008, 2012)), SUNY Albany (2022), Texas A&M (2011), Tinbergen Institute (2015), Toulouse (2016), Tulane (Energy Institute (2009)), University of Arizona (2017), UBC (2018), University of Calgary (2010), UC Berkeley (ARE (2008, 2012, 2017), Haas (2010)), UC Davis (2008, 2012), UC San Diego (2012, 2019), UC Santa Barbara (2008, 2016), University of Chicago (Booth (2008, 2011, 2012, 2015, 2019), EPIC (2012, 2015), Harris (2016)), University of Colorado (2016), University of Illinois (2012), University of Maryland (ARE (2008), Econ (2011)), University of Melbourne (2015), University of Michigan (Econ (2008, 2013), Erb (2009), Ross (2013)), University of Minnesota (Applied Econ (2012), Econ (2010)), University of New South Wales (2015), University of Oregon (2012), University of Pennsylvania (IO (2019), Wharton (2015)), University of Tennessee (2019), University of Texas (2012, 2019), University of Utah (Finance (2016)), University of Washington (2010), University of Wisconsin (AAE (2011)), University of Wyoming (2008), Washington University (2016), Wayne State (2012), Yale (joint Econ, FES (2012), SOM (2008))

Popular press columns

- "Federal Government Should Take a Lesson from States in Oil and Gas Leasing Policies", *Denver Post* (joint with Thomas R. Covert, 3 April, 2021).
- "We Should Be Celebrating OPEC's Price War, Not Trying to End It", Forbes (2 April, 2020).
- "Methane Rule Rollback: A One-Two Punch Against Climate and Big Industry", *Forbes* (6 September, 2019).
- "California Is Threatening to Go Its Own Way On Fuel Economy. It Might Have Zero Impact On Emissions", *Forbes* (25 June, 2018).
- "If Oil Prices Climb, the U.S. Is Less Able to Play the Role of Swing Producer Than Some Think", *Forbes* (7 June, 2018).
- "The U.S. Shale Oil Boom Has Led to Big Payoffs, But Energy Independence Isn't One -- Nor Should It Be", *Forbes* (5 March, 2018).

Media coverage (selected)

- Commentary on energy markets and policy featured in/on AP, Axios, Chicago Tribune, CNBC World, CNN, Detroit Free Press, Energy & Environment News, Financial Times, Forbes, Grand Forks Herald, Houston Chronicle, KNX, KTOO, Newsy, NPR Marketplace, Minneapolis Star Tribune, Platts S&P Global, Public Source, Talking Points Memo, Wall Street Journal, Washington Post, and WBEZ
- "Crude by Rail, Option Value, and Pipeline Investment" featured in *Detroit Free Press*, Houston Chronicle, Midwest Energy Report, and The Record
- "Welfare and Distributional Implications of Shale Gas" featured in New Republic and VoxEU
- "The Intergenerational Transmission of Automobile Brand Preferences: Empirical Evidence and Implications for Firm Strategy" featured in *Wall Street Journal* and *Washington Post*

"The Incidence of an Oil Glut: Who Benefits from Cheap Crude Oil in the Midwest?" featured in *Wall Street Journal*

"Daylight Time and Energy: Evidence from an Australian Experiment" featured on ABC National News, CBC Newsworld, CBC Radio One, Australia ABC Radio National, Public Radio International, *National Geographic*, *USNews, Wall Street Journal*, and local television, radio, and newspapers

Service (selected)

Provostial Education Planning Group, 2020 – present

Director, Harris Certificate in Energy and Environmental Policy, 2018 – present

University of Chicago Board of the Library, 2017 - 2020

University of Chicago University-Wide Disciplinary Committee, 2017 – 2020

Sloan Foundation Energy & Environment External Advisory Committee, 2016 - 2020

Harris Aims of Public Policy Address, 2019

Co-organizer: NBER EEE meeting, winter 2019

Oberlin College External Honors Examiner, 2018

Co-organizer, NBER initiative on the Economics of Energy Infrastructure, 2014 – 2018

Director, Michigan Institute for Teaching and Research in Economics (MITRE), 2013 – 2016

Faculty Council, University of Michigan Energy Institute, 2013 – 2016

Co-organizer, UM Conference on Transportation, Economics, Energy, and the Environment (TE3), 2014 – 2016

UM Economics Department Executive Committee, 2012 – 2014

Co-organizer: NBER IO meeting, winter 2013

Referee for Agricultural and Resource Economics Review; American Economic Journal: Applied Economics; American Economic Journal: Economic Policy; American Economic Journal: Microeconomics; American Economic Review; American Economic Review: Insights; Atmospheric Environment; B.E. Journal of Economic Analysis and Policy; Census Bureau; Contemporary Economic Policy; Econometrica; Economic Inquiry; Economics of Energy and Environmental Policy; Energy Economics; Energy Journal; Environmental and Resource Economics; European Economic Review; International Economic Review; International Journal of the Economics of Business; International Journal of Industrial Organization; Journal of Applied Econometrics; Journal of the Association of Environmental and Resource Economists; Journal of Business and Economic Statistics; Journal of Economic Literature; Journal of Economic Theory; Journal of Economics and Management Strategy; Journal of Environmental Economics and Management; Journal of Finance; Journal of Human Resources; Journal of Industrial Economics; Journal of Labor Economics; Journal of Law and Economics; Journal of Law, Economics, and Organization; Journal of Political Economy; Journal of Public Economics; Macroeconomic Dynamics; Management Science; National Science Foundation; Nature Geoscience; Operations Research; Quarterly Journal of Economics; RAND Journal of Economics; Resource and Energy Economics; Resources Policy; Review of Economic Studies; Review of Economics and Statistics; Review of Environmental Economics and Policy; Sloan Foundation; and Smith Richardson Foundation.