# Erin T. Mansur

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#### **ACADEMIC APPOINTMENTS:**

Dartmouth College, Tuck School of Business, Revers Professor of Business Administration, 2014 – present

Dartmouth College, Department of Economics, Associate Professor (with tenure), 2010 – 2014

Yale University, School of Management, Associate Professor (without tenure), 2007 – 2010

Yale University, Joint Appointment at School of Management and the School of Forestry and Environmental Studies, Assistant Professor, 2002 – 2007

# OTHER CURRENT APPOINTMENTS, AFFILIATIONS AND SERVICE:

National Bureau of Economic Research (NBER), Research Associate (Environmental and Energy Economics; Industrial Organization), 2011 – present

Tuck School of Business at Dartmouth, Revers Center for Energy, Sustainability and Innovation, Faculty Director, 2021 – present

Dartmouth College, Department of Economics, Adjunct Professor of Economics (courtesy appointment), 2014 – present

Journal of Industrial Economics, Associate Editor, 2013 – present

American Economic Association, Member

Association of Environmental and Resource Economists, Member

# **EDUCATION:**

Ph.D. (Economics) University of California at Berkeley, 2002

B.A. (Biology; Economics & Philosophy minors) Colby College, 1995

## FIELDS OF RESEARCH INTEREST:

Environmental and Energy Economics, Industrial Organization, Regulation

March 2024

#### JOURNAL PUBLICATIONS:

- "The Economics of Electricity Reliability" (with Severin Borenstein and James Bushnell), *Journal of Economic Perspectives*, Volume 37, Issue 4, Fall 2023, Pages 181-206.
- "Reply to Gagnon et al.: Short-run estimates vs. long-run conjectures" (with Stephen P. Holland, Matthew J. Kotchen, and Andrew J. Yates), *Proceedings of the National Academy of Sciences of the United States of America*, Volume 119, Issue 49, November 2022, e2214219119; <a href="https://doi.org/10.1073/pnas.2214219119">https://doi.org/10.1073/pnas.2214219119</a>
- "Why Marginal CO<sub>2</sub> Emissions are not Decreasing for US Electricity: Estimates and Implications for Climate Policy" (with Stephen P. Holland, Matthew J. Kotchen, and Andrew J. Yates), *Proceedings of the National Academy of Sciences of the United States of America*, Volume 119, Issue 8, February 2022, e2116632119; https://doi.org/10.1073/pnas.2116632119
- "The Electric Vehicle Transition and the Economics of Banning Gasoline Vehicles" (with Stephen P. Holland and Andrew J. Yates), *American Economic Journal: Economic Policy*, Volume 13, Issue 3, August 2021, Pages 316-344.
- "Expected Health Effects of Reduced Air Pollution from COVID-19 Social Distancing" (with Steve Cicala, Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *Atmosphere*, Special Issue on Human Health, Climate Change, and Ambient Air Pollution, Volume 12, Issue 8, Article 951, July 2021: <a href="https://www.mdpi.com/2073-4433/12/8/951">https://www.mdpi.com/2073-4433/12/8/951</a>.
- "On the Measurement of Environmental Inequality: Ranking Emissions Distributions Generated by Different Policy Instruments" (with Glenn Sheriff), *Journal of the Association of Environmental and Resource Economists*, Volume 8, Issue 4, July 2021, Pages 721-758.
- "The Environmental Benefits from Transportation Electrification: Urban Electric Buses" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *Energy Policy*, Volume 148, Part A, January 2021, 111921.
- "Decompositions and Policy Consequences of an Extraordinary Decline in Air Pollution from Electricity Generation" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *American Economic Journal: Economic Policy*, Volume 12, Issue 4, November 2020, Pages 244-274.
- "Geographic Dispersion of Economic Shocks: Evidence from the Fracking Revolution: Reply" (with James Feyrer and Bruce Sacerdote), *American Economic Review*, Volume 110, Issue 6, June 2020, Pages 1914-1920.
- "Distributional Effects of Air Pollution from Electric Vehicle Adoption" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *Journal of the*

- Association of Environmental and Resource Economists, Volume 6, Issue S1, March 2019, Pages S65-S94.
- "Inferring Carbon Abatement Costs in Electricity Markets: A Revealed Preference Approach using the Shale Revolution" (with Joseph Cullen), *American Economic Journal: Economic Policy*, Volume 9, Issue 3, August 2017, Pages 106-133.
- "Geographic Dispersion of Economic Shocks: Evidence from the Fracking Revolution" (with James Feyrer and Bruce Sacerdote), *American Economic Review*, Volume 107, Issue 4, April 2017, Pages 1313-1334.
- "Are There Environmental Benefits from Driving Electric Vehicles? The Importance of Local Factors" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *American Economic Review*, Volume 106, Issue 12, December 2016, Pages 3700–3729.
- "Response to Comment on 'Damages and Expected Deaths Due to Excess NOx Emissions from 2009-2015 Volkswagen Diesel Vehicles" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *Environmental Science and Technology*, Volume 50, Issue 7, March 2016, Pages 4137–4138.
- "Correspondence: Reassessing the Contribution of Natural Gas to US CO<sub>2</sub> Emission Reductions Since 2007" (with Matthew J. Kotchen) *Nature Communications*, Volume 7, Article 10648, March 2016.
- "Damages and Expected Deaths Due to Excess NOx Emissions from 2009-2015 Volkswagen Diesel Vehicles" (with Stephen P. Holland, Nicholas Z. Muller, and Andrew J. Yates), *Environmental Science and Technology*, Volume 50, Issue 3, February 2016, Pages 1111–1117.
- "Electricity Shortages and Firm Productivity: Evidence from China's Industrial Firms" (with Karen Fisher-Vanden and Juliana Q. Wang), *Journal of Development Economics*, Volume 114, May 2015, Pages 172-188.
- "Measuring Climatic Impacts on Energy Expenditures: A Review of the Empirical Literature" (with Maximilian Auffhammer), *Energy Economics*, Volume 46, November 2014, Pages 522–530.
- "Spatial and Temporal Heterogeneity in Marginal Emissions: Implications for Electric Cars and other Electricity-Shifting Policies" (with Josh Graff Zivin and Matthew Kotchen), *Journal of Economic Behavior and Organization*, Volume 107, Part A, November 2014, Pages 248–268.
- "How Stringent are the US EPA's Proposed Carbon Pollution Standards for New Power Plants?" (with Matthew Kotchen), *Review of Environmental Economics and Policy*, Volume 8, Issue 2, Summer 2014, Pages 290-306.

- "Profiting from Regulation: Evidence from the European Carbon Market" (with James B. Bushnell and Howard Chong), *American Economic Journal: Economic Policy*, Volume 5, Issue 4, November 2013, Pages 78-106.
- "Prices vs. Quantities: Environmental Regulation and Imperfect Competition" *Journal of Regulatory Economics*, Volume 44, Issue 1, August 2013, Pages 80-102.
- "Do Local Energy Prices and Regulation Affect the Geographic Concentration of Employment?" (with Matt Kahn), *Journal of Public Economics*, Volume 101, May 2013, Pages 105-114.
- "The Value of Scarce Water: Measuring the Inefficiency of Municipal Regulations" (with Sheila M. Olmstead), *Journal of Urban Economics*, Volume 71, Issue 3, May 2012, pages 332–346.
- "What Do Emissions Markets Deliver and to Whom? Evidence from Southern California's NOx Trading Program" (with Meredith Fowlie and Stephen P. Holland), *American Economic Review*, Volume 102, Issue 2, April 2012, pages 965-993.
- "Vertical Targeting and Leakage in Carbon Policy" (with James B. Bushnell), *American Economic Review Papers and Proceedings*, Volume 101, Issue 3, May 2011, pages 263-267.
- "Averting Regulatory Enforcement: Evidence from New Source Review" (with Nathaniel O. Keohane and Andrey Voynov), *Journal of Economics and Management Strategy*, Volume 18, Issue 1, Spring 2009, pages 75-104.
- "Is Real-Time Pricing Green? The Environmental Impacts of Electricity Demand Variance" (with Stephen P. Holland), *Review of Economics and Statistics*, Volume 90, Issue 3, August 2008, pages 550-561.
- "Measuring Welfare in Restructured Electricity Markets" *Review of Economics and Statistics*, Volume 90, Issue 2, May 2008, pages 369-386.
- "Vertical Arrangements, Market Structure, and Competition: An Analysis of Restructured U.S. Electricity Markets" (with James B. Bushnell and Celeste Saravia), *American Economic Review*, Volume 98, Issue 1, March 2008, pages 237-266.
- "Climate Change Adaptation: A Study of Fuel Choice and Consumption in the U.S. Energy Sector" (with Robert Mendelsohn and Wendy Morrison), *Journal of Environmental Economics and Management*, Volume 55, Issue 2, March 2008, pages 175-193.
- "Reformulating Competition? Gasoline Content Regulation and Wholesale Gasoline Prices" (with Jennifer Brown, Justine Hastings, and Sofia Villas-Boas), *Journal of Environmental Economics and Management*, Volume 55, Issue 1, January 2008, pages 1-19.

- "Do Oligopolists Pollute Less? Evidence from a Restructured Electricity Market" *Journal of Industrial Economics*, Volume 55, Issue 4, December 2007, pages 661-689.
- "Upstream Competition and Vertical Integration in Electricity Markets" *Journal of Law and Economics*, Volume 50, Issue 1, February 2007, pages 125-156.
- "The Short-Run Effects of Time-Varying Prices in Competitive Electricity Markets" (with Stephen P. Holland), *Energy Journal*, Volume 27, Issue 4, October 2006, pages 127-155.
- "Consumption under Noisy Price Signals: A Study of Electricity Retail Rate Deregulation in San Diego" (with James B. Bushnell), *Journal of Industrial Economics*, Volume 53, Issue 4, December 2005, pages 493-513.
- "Examining Policies to Reduce Homelessness using a General Equilibrium Model of the Housing Market" (with John M. Quigley, Steven Raphael, and Eugene Smolensky), *Journal of Urban Economics*, Volume 52, Issue 2, September 2002, pages 316-340.
- "The Environmental Effects of SO<sub>2</sub> Trading and Banking" (with Dallas Burtraw), *Environmental Science and Technology*, Volume 33, Issue 20, October 15, 1999, pages 3489-3494.
- "Costs and Benefits of Reducing Air Pollutants Related to Acid Rain" (with Dallas Burtraw, Alan Krupnick, David Austin, and Deirdre Farrell), *Contemporary Economic Policy*, Volume 16, Issue 4, October 1998, pages 379-400.

## **OTHER PUBLICATIONS:**

- "Are Electric Cars Greener? Depends on Where You Live" (with Josh Graff Zivin and Matthew Kotchen), *Los Angeles Times*, November 16, 2014.
- "Upstream versus Downstream Implementation of Climate Policy" Chapter 12 in Don Fullerton and Catherine Wolfram, ed. *The Design and Implementation of U.S. Climate Policy*. University of Chicago Press. 2012. 344 pages.
- "Renewables Forecasts in a Low Carbon World: A Brief Overview" Chapter 3 in Boaz Moselle, Jorge Padilla, and Richard Schmalensee, ed. *Harnessing Renewable Energy in Electric Power Systems: Theory, Practice, Policy*. RFF Press. 2010. 368 pages.
- Reprint of "The Environmental Effects of SO<sub>2</sub> Trading and Banking" (with Dallas Burtraw), in *Emissions Trading Programs, Vol. 1: Implementation and Evolution*, Tom Tietenberg, ed. (Aldershot, UK: Ashgate, 2001), pp. 253-258.

• *Homelessness in California*, (with John Quigley, Steven Raphael, Eugene Smolensky, and Larry Rosenthal), GSPP Public Policy Institute of California Publication. 2001. 93 pages.

## **RECENT WORKING PAPERS:**

- "Regularization from Economic Constraints: A New Estimator for Marginal Emissions" (with Stephen P. Holland, Valentin Verdier, and Andrew J. Yates). NBER Working Paper 32065.
- "On the Feasibility, Costs and Benefits of an Immediate Phasedown of Coal for U.S. Electricity Generation" (with Stephen P. Holland, Matt J. Kotchen, and Andy J. Yates). NBER Working Paper 32235.
- "Electrification in the Long Run" (with Stephen P. Holland and Andrew J. Yates). NBER Working Paper 30082.
- "Technology Adoption as Climate Adaptation: Evidence from US Air Conditioning" (with Ian Sue Wing).

#### **ADDITIONAL PAPERS:**

- "Capacity Markets at a Crossroads" (with James B. Bushnell and Michaela Flagg) Energy Institute at Haas Working Paper 278. April 2017.
- "Review of the Economics Literature on U.S. Electricity Restructuring" (with James B. Bushnell and Kevin Novan), February 2017.
- "Vertical Position and Price Effects of Mergers in Electricity Markets" (with James B. Bushnell and Frank A. Wolak), June 2013.
- "Market Organization and Efficiency in Electricity Markets" (with Matthew W. White), January 2012.
- "Do Firms Respond to Market Based Environmental Instruments? Evidence from Bidding Behavior in Electricity Markets" (with Steven L. Puller).

## **NBER WORKING PAPERS:**

•	"On the Feasibility, Costs and Benefits of an Immediate Phasedown of"	w32235
•	"Regularization from Economic Constraints: A New Estimator for"	w32065
•	"Decarbonization and Electrification in the Long Run"	w30082
•	"The Environmental Benefits from Transportation Electrification: Urban"	w27285
•	"Expected Health Effects of Reduced Air Pollution from COVID-19"	w27135
•	"The Electric Vehicle Transition and the Economics of Banning Gasoline"	w26804
•	"Do Pollution Markets Harm Low Income and Minority Communities"	w25666
•	"Decompositions and Policy Consequences of an Extraordinary Decline"	w25339
•	"Distributional Effects of Air Pollution from Electric Vehicle Adoption"	w22862
•	"Geographic Dispersion of Economic Shocks: Evidence from the"	w21624
•	"Environmental Benefits from Driving Electric Vehicles?"	w21291
•	"Inferring Carbon Abatement Costs in Electricity Markets: A Revealed"	w20795
•	"Spatial and Temporal Heterogeneity of Marginal Emissions:"	w18462
•	"Costly Blackouts? Measuring Productivity and Environmental Effects of"	w17741
•	"How Do Energy Prices, and Labor and Environmental Regulations"	w16538
•	"Upstream versus Downstream Implementation of Climate Policy"	w16116
•	"Profiting from Regulation: An Event Study of the EU Carbon Market"	w15572
•	"What Do Emissions Markets Deliver and to Whom? Evidence from"	w15082
•	"The Value of Scarce Water: Measuring the Inefficiency of Municipal"	w13513
•	"Averting Regulatory Enforcement: Evidence from New Source Review"	w13512
•	"Do Oligopolists Pollute Less? Evidence from a Restructured Electricity"	w13511
•	"Prices vs. Quantities: Environmental Regulation and Imperfect"	w13510
•	"Measuring Welfare in Restructured Electricity Markets"	w13509
•	"Is Real-Time Pricing Green? The Environmental Impacts of Electricity"	w13508
•	"Vertical Arrangements, Market Structure, and Competition An Analysis"	w13507

# OTHER PAST APPOINTMENTS, AFFILIATIONS AND SERVICE:

Toulouse School of Economics, Visiting Professor, Fall 2022

American Economic Journal: Economic Policy, Board of Editors, 2019 – 2022

London School of Economics Symposium on Environmental Economics and the Green Transition, Scientific Committee, 2019

Scientific Advisory Committee for Yale/Johns Hopkins SEARCH Center, 2017 – 2021

Northeast Workshop on Energy Policy and Environmental Economics, Co-Organizer, 2016 – 2022

Tuck School of Business, Revers Center for Energy, Faculty Director, 2016 – 2021

Tuck School of Business, Revers Energy Initiative, Faculty Director, 2015 – 2016

International Industrial Organization Conference, Program Committee Member, 2014 – 2016

NBER Energy Infrastructure Conference Co-Organizer, 2014

University of California Energy Institute, Visiting Research Associate, Spring 2008

NBER Co-Organizer of Industrial Organization Conference and Industrial Organization/Environmental & Energy Economics Joint Session, 2008

Center for Business and the Environment at Yale, Co-Director, 2008 – 2010

Yale University, Department of Economics, Faculty Affiliate, 2008 – 2010

NBER, Faculty Research Fellow (Environmental & Energy Economics), 2007 – 2011

NBER, Faculty Research Fellow (Industrial Organization), 2006 – 2011

NBER, Environmental Economics Working Group Participant, 2005 – 2007

University of California Energy Institute, Research Assistant, 1999 – 2002

Resources for the Future, Research Assistant, Washington DC, 1995 – 1997

## HONORS, FELLOWSHIPS, AND GRANTS:

- NBER Grant, U.S. Department of Energy, National Science Foundation, and the Alfred P. Sloan Foundation. Research Initiative on the Economics of Energy Use in Transportation. "Environmental Benefits from Transportation Electrification" (with Stephen Holland, Nick Muller, and Andy Yates), \$12,056. 2018-2019
- NBER Grant, Alfred P. Sloan Foundation. Project on the Energy Policy Tradeoffs between Economic Efficiency and Distributional Equity. "The Distribution of Environmental Benefits and Costs Associated with the Federal Subsidy on the Purchase of Electric Vehicles" (with Stephen Holland, Nick Muller, and Andy Yates), \$9,000. 2016-2017
- NBER Co-Principal Investigator, Alfred P. Sloan Foundation. "Economic Research on Energy Infrastructure, with a Focus on Hydrocarbon Transport and Local Energy Distribution" (with Jim Bushnell and Ryan Kellogg), \$588,000. 2015-2018
- Co-Investigator, U.S. Department of Energy, Office of Science, Research in Integrated Assessment Inter-Model Comparison Development, Testing, and Diagnostics (PIAMDDI), (PIs: John Weyant, Stanford University and Karen Fisher-Vanden, Pennsylvania State University). 2013-2018
- Award for Best Paper in Competition Policy, Association of Competition Economics (ACE), for "Vertical Arrangements, Market Structure, and Competition: An Analysis of Restructured U.S. Electricity Markets," 2009

Dissertation Award, AEA Transportation and Public Utilities Group, 2002

Doctoral Research Fellowship, California Public Utilities Commission, 2001

Dean's Normative Time Fellowship, University of California at Berkeley, 2001 First Year Student Fellowship, University of California at Berkeley, 1997 *Summa Cum Laude*, Colby College, 1995 *Phi Beta Kappa*, Colby College, 1995

## **TEACHING:**

Dartmouth Tuck School of Business:

Energy Economics (MBA)

Dartmouth Economics:

Environmental and Energy Economics (undergraduate)

Topics in Industrial Organization (undergraduate)

Yale School of Management:

Energy Markets Strategy (MBA)

Economic Analysis (MBA)

Public and Private Management of the Environment (MBA)

Yale School of Forestry and Environmental Studies:

Economics of Pollution (masters)

Energy Economics and the Environment (masters)

#### **UNIVERSITY SERVICE:**

## Dartmouth College

Tuck School of Business, current service: area chair for the economics group, curriculum committee, ad hoc AC 2020-21 committee, Title IX Council and Ad Hoc Hearing Committee

Tuck School of Business, past service: academic area coordinator, academic honor committee, academic performance committee, curriculum review committee, executive committee, strategy monitoring committee

College: committee on standards, economics department junior recruiting committee, sustainability task force

Conference organizer: Dartmouth Winter IO Conference; Northeast Workshop on Energy Policy and Environmental Economics

# Yale University

School of Management: diversity committee, junior recruiting committee

School of Forestry and Environmental Studies: curriculum committee, discipline committee, doctoral studies committee

Seminar co-organizer: environmental economics; industrial organization

#### REFEREE SERVICES:

American Economic Journal: Applied Economics; American Economic Journal: Economic Policy; American Economic Review; Annals of Regional Science; B.E. Journal in Economic Analysis & Policy; Canadian Journal of Economics; Climate Change Economics; Computational Management Science; Contemporary Economic Policy; Econometrica; Economic Inquiry; Economic Journal; Economica; Economics Letters; Energy: The International Journal; Energy Economics; The Energy Journal; Energy Policy; Environment and Development Economics; Environmental and Resource Economics; Environmental Science and Technology; IEEE Transactions on Power Systems; International Economic Review; International Journal of Industrial Organization; Journal of Applied Econometrics; Journal of Development Economics; Journal of Economics and Management Strategy; Journal of Environmental Economics and Management; Journal of Environmental Management; Journal of Industrial Ecology; Journal of Industrial Economics; Journal of Institutional and Theoretical Economics; Journal of Law and Economics; Journal of Law, Economics, and Organization; Journal of Policy Analysis and Management; Journal of Political Economy; Journal of Public Economics; Journal of Regulatory Economics; Journal of the Association of Environmental and Resource Economists; Journal of the European Economic Association; Nature Communications; National Science Foundation; Proceedings of the National Academy of Sciences: Production and Operations Management; Ouarterly Journal of Economics; RAND Journal of Economics; Resource & Energy Economics; Review of Economic Studies; Review of Economics and Statistics; Review of Industrial Organization; Scandinavian Journal of Economics; Southern Economic Journal; UCEI Grants Program; and Utilities Policy