

Hilary Sigman

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Current appointments:

Department of Economics, Rutgers University, New Brunswick, NJ: Professor (2008-present),
Associate Professor (2001-08), Assistant Professor (1999-2001)

National Bureau of Economic Research, Cambridge, MA: Research Associate (2008-present),
Faculty Research Fellow (1994–2008)

Education:

1993 Massachusetts Institute of Technology, Ph.D. in Economics
Thesis: “Economic Instruments for Hazardous Waste Policy”
National Tax Association Award for Outstanding Doctoral Dissertation

1988 Cambridge University (England), M.Phil. in Economics

1987 Aberystwyth University (Wales), Study in human and physical geography

1986 Yale College, B.A. *summa cum laude*
Honors in Economics and Studies in the Environment, Phi Beta Kappa

Visiting and previous positions:

Summer 2007 Visiting Scholar, Copenhagen Business School

Spring 2002 Visiting Associate Professor, Ford School of Public Policy, University of Michigan

1992–1998 Assistant Professor, Department of Economics, UCLA

Fellowships:

Fall 1998 Visiting Fellowship, Hoover Institution, Stanford, CA

1996–1997 Gilbert F. White Fellowship, Resources for the Future, Washington, DC

Spring 1997 Faculty Research Fellowship, UCLA Center for American Politics and Public Policy

Fall 1996 UCLA Faculty Career Development Award

- 1990–1992 MIT Center for Energy and Environmental Policy Research, Dissertation funding
- 1988–1990 Robert M. Solow Fellowship, MIT Department of Economics
- 1986–1988 Keasbey Memorial Scholarship (for two years' study in the UK)

Research grants and contracts:

- 2011–2012 World Bank, Knowledge for Change Program, “Damming the commons: An analysis of international cooperation and conflict over water” (Co-investigator)
- 2005–2009 US EPA, National Center for Environmental Research, Science to Achieve Results (STAR) Research Grant, “Environmental liability, cleanup expenditures, and redevelopment of old industrial land,” \$149,237 (P.I.)
- 1999–2003 National Science Foundation, Research Grant
“International spillovers and water quality in rivers,” \$137,792 (P.I.)
- 1994–1997 US EPA, Office of Exploratory Research, Research Grant
“Liability funding and Superfund clean-up strategies,” \$218,805 (P.I.)
- 1994–1995 UC Toxic Substances Research and Teaching Program, Research Grant
“Cross-media substitution in toxic chemical emissions,” \$19,200 (P.I.)
- 1993 Marine Policy Center, Woods Hole Oceanographic Institution,
Subcontract for Focal Study, “The cost of waste reduction”

Professional activities:

- Association of Environmental and Resource Economists (AERE): Member, Board of Directors (2003–05), Nominating Committee (2007), Publication of Enduring Quality Committee (2014–17), Oates Doctoral Dissertation Award Committee (2019–20)
- National Academies: Member, Committee on Costs and Approaches for Municipal Solid Waste Recycling Programs (2024–25)
- NJ Department of Environmental Protection, Science Advisory Board: Ad Hoc Member, Climate and Atmospheric Sciences Standing Committee (summer 2025)
- US Environmental Protection Agency, Science Advisory Board: Member, Environmental Economics Advisory Committee (1998–2004), UST/RCRA Benefits, Costs, and Impacts Review Panel (2002)

Publications:

- “Droughts and Economic Activity: Do Dams and Groundwater Mediate the Impact?” (with Sheila M. Olmstead). Forthcoming, *Journal of the Association of Environmental and Resource Economists*. doi:10.1086/740567
- “Climate Change Adaptation in Government Decisions: Empirical Evidence from Superfund Remedies.” *Land Economics* (February 2025) 101(1): 18-35. doi:10.3368/le.101.1.082023-0079R
- “China’s Waste Import Ban and US Solid Waste Management: Effects of the Loss of a Waste Haven” (with Rachel Strow). *Journal of the Association of Environmental and Resource Economists* (November 2024), 1527-1557. doi: 10.1086/729899
- “Economics of Hazardous Waste Management” in J. Kahn, ed. *Oxford Encyclopedia of Environmental Economics* (Oxford: Oxford University Press, 2021). doi: 10.1093/acrefore/9780199389414.013.432
- “Deposit Refunds” in K. Richards and J. van Zeben, eds. *Policy Instruments in Environmental Law* (Cheltenham, UK: Edward Elgar, 2020), 377-386. doi: 10.4337/9781785369520
- “Damming the Commons: An Empirical Analysis of International Cooperation and Conflict in Dam Location” (with Sheila M. Olmstead), *Journal of the Association of Environmental and Resource Economists* 2 (December 2015), 497–526.
- “An Empirical Analysis of Cost Recovery in Superfund Cases: Implications for Brownfields and Joint and Several Liability” (with Howard F. Chang), *Journal of Empirical Legal Studies* 11 (September 2014), 477–504.
- Summarized in *NBER Digest*, December 2010
- “Endogenous Decentralization in Federal Environmental Policies” (with Howard F. Chang and Leah G. Traub), *International Review of Law and Economics* 37 (March 2014), 39–50.
- “Decentralization and Environmental Quality: An International Analysis of Water Pollution Levels and Variation,” *Land Economics* 90 (February 2014), 114–30.
- “Monitoring and Enforcement of Climate Policy” in Don Fullerton and Catherine Wolfram, eds. *The Design and Implementation of U.S. Climate Policy* (Chicago: University of Chicago Press, 2012), 213–25.
- “Management of Hazardous Waste and Contaminated Land” (with Sarah Stafford), *Annual Review of Resource Economics* 3 (2011), 255–75.
- “The Effect of Allowing Pollution Offsets with Imperfect Enforcement” (with Howard F. Chang), *American Economic Review (Papers and Proceedings)* 101 (May 2011), 268–72.

“Environmental Liability and Redevelopment of Old Industrial Land,” *Journal of Law and Economics* 53 (May 2010), 289–306.

“Implications of Globalization and Trade for Water Quality in Transboundary Rivers” (with Howard F. Chang) in Claudia Ringler, Asit Biswas, and Sarah Cline, eds. *Global Change: Impacts on Water and Food Security* (New York: Springer, 2010), pp. 97–111.

Economics of Hazardous Waste and Contaminated Land. Cheltenham, UK: Edward Elgar, 2008 (edited volume in International Library of Critical Writings in Economics).

“Economics of Hazardous Waste,” in Steven N. Durlauf and Lawrence E. Blume, eds. *The New Palgrave Dictionary of Economics, 2nd edition* (Basingstoke and New York: Palgrave Macmillan, 2008).

“A Cross-Country Comparison of Decentralization and Environmental Protection,” in Greg Ingram and Yu-Hung Hong, eds. *Land Policies and Fiscal Decentralization* (Cambridge, MA: The Lincoln Institute for Land Policy, 2008), 195–215.

“The Effect of Joint and Several Liability under Superfund on Brownfields,” (with Howard F. Chang), *International Review of Law and Economics* 27 (December 2007), 363–384.

“Legal Liability as Climate Change Policy,” *University of Pennsylvania Law Review* 155 (June 2007), 1953–1959.

“The Incidence of Pollution Control Policies” (with Ian W.H. Parry, Margaret Walls, and Robertson C. Williams III) in Tom Tietenberg and Henk Folmer, eds. *International Yearbook of Environmental and Resource Economics 2006/2007* (Cheltenham, UK: Edward Elgar, 2006), 1–44.

“Transboundary Spillovers and Decentralization of Environmental Policies,” *Journal of Environmental Economics and Management* 50 (June 2005), 82–101.

“Does Trade Promote Environmental Coordination? Pollution in International Rivers,” *Contributions to Economic Analysis and Policy* (B.E. Press), 3 (Issue 2, 2004), Article 2.

- Reprinted in D. Fullerton, ed., *The Economics of Pollution Havens*, Cheltenham, UK: Edward Elgar, 2006.
- Reprinted in K.W. Easter and N. Zeitouni, eds. *Economics of Water Quality*, Ashgate Publishing, 2007.

“Targeting Lead in Solid Waste,” in Nils Axel Braathen, ed. *Addressing the Economics of Waste* (Paris: OECD, 2004), 161–180.

“Taxes on Hazardous Waste: The U.S. Experience,” *Public Finance and Management* 3(1), 2003, 12–33.

- "Letting the States Do the Dirty Work: State Responsibility for Federal Environmental Regulation," *National Tax Journal* 56 (March 2003), 107–122.
- "International Spillovers and Water Quality in Rivers: Do Countries Free Ride?" *American Economic Review* 92 (September 2002), 1152–1159
- Reprinted in J. Geoghegan and W. Gray, eds., *Spatial Aspects of Environmental Policy*, Ashgate Publishing, 2006
- "The Pace of Progress at Superfund Sites: Policy Goals and Interest Group Influence," *Journal of Law and Economics*, 44 (April 2001), 315–44
- Reprinted in Geoghegan and Gray (2006)
- "Environmental Liability in Practice: Liability for Cleanup of Contaminated Sites under Superfund," in Anthony Heyes, ed. *The Law and Economics of the Environment*, (Cheltenham, U.K.: Edward Elgar, 2001), 136–149.
- "Hazardous Waste and Toxic Substance Policies," in Paul R. Portney and Robert N. Stavins, eds. *Public Policies for Environmental Protection*, Second Edition (Washington, DC: Resources for the Future, 2000), 215–260.
- "Incentives to Settle Under Joint and Several Liability: An Empirical Analysis of Superfund Litigation" (with Howard F. Chang), *Journal of Legal Studies* 29 (January 2000), 205–236.
- "Reforming Hazardous Waste Policy," Hoover Institution Essays in Public Policy (Stanford, CA: Hoover Institution, 1999).
- "Liability Funding and Superfund Clean-Up Remedies," *Journal of Environmental Economics and Management* 35 (May 1998), 205–224.
- "Midnight Dumping: Public Policies and Illegal Disposal of Used Oil," *RAND Journal of Economics* 29 (Spring 1998), 157–178.
- "The Cost of Reducing Municipal Solid Waste" (with Karen Palmer and Margaret Walls), *Journal of Environmental Economics and Management* 33 (June 1997), 128–150.
- Reprinted in T. Kinnaman, *The Economics of Residential Solid Waste Management*, Ashgate Publishing, 2003.
 - Reprinted in R.K. Turner, I. Bateman, and J. Powell, eds. *Waste Management and Planning*, Edward Elgar, 2001.
- "Cross-Media Pollution: Responses to Restrictions on Chlorinated Solvent Releases," *Land Economics* 72 (August 1996), 298–312.
- "The Effects of Hazardous Waste Taxes on Waste Generation and Disposal," *Journal of Environmental Economics and Management* 30 (March 1996), 199–217.

"A Comparison of Public Policies for Lead Recycling," *RAND Journal of Economics* 26 (Autumn 1995), 452–478.

Working Papers:

"Environmental Justice in Superfund Remedies," working paper presented at AERE@SEA February 2025 and ALEA May 2025.

Book reviews, proceedings, and other works:

"Comments on 'Distributional Aspects of a Comprehensive Climate Policy'" in Fullerton and Wolfram, eds. *The Design and Implementation of U.S. Climate Policy* (Chicago: University of Chicago Press, 2012), 34-6.

"Members' Responses to the Survey on the AERE Journal Proposal," *AERE Newsletter*, 2004.

"Review of *The Economics of Waste* by Richard C. Porter," *Journal of Economic Literature* 42 (March 2004), 229–31.

"Review of *The Greening of Industry: A Risk Management Perspective* by John Graham and Jennifer Hartwell," *Journal of Economic Literature*, 36 (June 1998), 996–998.

"Economic Instruments for Hazardous Waste Policy," *Proceedings of the National Tax Association*, vol. 86, 1994.

"An Empirical Assessment of State Hazardous Waste Taxes," *Proceedings of the National Tax Association*, vol. 86, 1994.

"State Hazardous Waste Fees: An Assessment," *New Partnerships: Economic Incentives in Environmental Management*, Pittsburgh: Air and Waste Management Association, 1994.

Reviewing and related activities:

1997–2004 Editorial Council, *Journal of Environmental Economics and Management*

2003–2016 Editorial Council, *Public Finance Review*

2003 Co-organizer, NBER Summer Institute Environmental Economics and Policy Workshop

Reviewer for:

Journals: *American Economic Journal-Economic Policy*, *American Economic Review*, *B.E. Press Journal of Applied Economics and Policy*, *Canadian Journal of Economics*, *Contemporary Economic Policy*, *Ecological Economics*, *Economic Inquiry*, *Economic Journal*, *Energy Journal*, *Environment and Development Economics*, *Environment and Planning A*, *Environmental and Resource Economics*, *Finnish Economic Papers*, *Frontiers in the Economics of China*, *International Tax and Public Finance*, *Journal of the Association of Environmental and Resource Economics*, *Journal of Economic*

Literature, Journal of Environment and Development, Journal of Environmental Economics and Management, Journal of Environmental Management, Journal of the European Economics Association, Journal of Industrial Economics, Journal of Law and Economics, Journal of Law, Economics and Organization, Journal of Political Economy, Journal of Policy Analysis and Management, Journal of Public Economics, Journal of Regulatory Economics, Land Economics, National Tax Journal, Policy Studies Review, Public Finance Quarterly, Quarterly Journal of Economics, RAND Journal of Economics, Regional Science and Urban Economics, Resource and Energy Economics, Review of Economics and Statistics, Review of Economic Studies, Review of Environmental Economics and Policy, Review of Law and Economics, Science, Southern Economic Journal, Waste Management, World Development

Granting Organizations: National Science Foundation, Sloan Foundation, Social Science and Humanities Research Council of Canada, Czech Research Foundation, University of California Energy Institute

Conference Selection Committees: AERE Annual Meetings; EAERE Annual Meetings; World Congresses of the Environmental and Resource Economists; 1999 AERE-Harvard Workshop on Market Mechanisms

Other: National Research Council, U.S. Environmental Protection Agency, Oxford University Press, Edward Elgar, Addison-Wesley, Taylor & Francis, National Tax Association Dissertation Awards

Recent teaching:

Environmental Economics (Economics 432; 50–85 undergraduate students)

Applied Econometrics for Microeconomics (Economics 609; 10-20 graduate students)

Recent university service:

Economics Graduate Program Director, 2015-18

Economics Undergraduate Honors Research Coordinator, 2019-21, 2023-24, 2025-26

Empirical Microeconomics Workshop Coordinator, 2006-15, 2020

Economics Executive Committee, 2008-10, 2013-14, 2015-18, 2020-22, 2025-27

Economics Junior Faculty Recruiting Committee Chair or Co-chair, 2024, 2026

Undergraduate Honors Committee, School of Arts and Sciences, 2016-19

Affiliate, Rutgers Climate and Energy Institute (and predecessors), 2009-

Recent PhD dissertations chaired (with first placement):

Rachel Strow, 2024, APPRISE

Natalia D'Agosti, 2023, University of Edinburgh

Yeonbin Yang, 2021, Korea Energy Economics Institute

Won Hyung Lee, 2019, Chatham University

Ju Young Park, 2017, Bowdoin College