

# NICHOLAS J. SANDERS

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## Current Positions

Associate Professor, Brooks School of Public Policy and Dept. of Economics, Cornell University (2023- )  
Director of Graduate Studies, Brooks School of Public Policy (2023- )  
Faculty Research Fellow, National Bureau of Economic Research (2017- )  
Editorial Council, Journal of the Association of Environmental and Resource Economists (2014- )

## Prior Positions

Assistant Professor, Brooks School of Public Policy and Dept. of Economics, Cornell University (2015-23)  
Assistant Professor, Dept. of Economics, College of William & Mary (2012-15)  
Postdoctoral Fellow, Stanford Institute for Economic Policy Research (2010-12)

## Fields of Study

Environmental and Health Economics

## Education

Ph.D. Economics, University of California, Davis, 2010  
M.A. Economics, University of California, Davis, 2005  
B.A. Economics and Hispanic Studies, Lewis and Clark College, 2002

## Publications

- **Toxic Assets: How the Housing Market Responds to Environmental Information Shocks** (with Jeremy Moulton and Scott Wentland), accepted, *Land Economics*
- **When Externalities Collide: Influenza and Pollution** (with Joshua Graff Zivin, Matthew Neidell, and Gregor Singer), *American Economic Journal: Applied Economics* (forthcoming).
- **The Mortality Impact of Fine Particulate Matter in China: Evidence from Trade Shocks** (with Yazhen Gong, Shanjun Li, and Guang Shi), *Journal of Environmental Economics and Management*, January 2023, Vol. 117
- **A Thousand Cuts: Cumulative Lead Exposure Reduces Academic Achievement** (with Alex Hollingsworth, Mike Huang, and Ivan Rudik), *Journal of Human Resources*, October 2022, 0222–12169R2.
- **Adaptation to Environmental Change: Agriculture and the Unexpected Incidence of the Acid Rain Program** (with Alan I. Barreca), *American Economic Journal: Economic Policy*, February 2022, Volume 14, Number 1, pp. 373-401
- **Long-Run Pollution Exposure and Mortality: Evidence from the Acid Rain Program** (with Alan I. Barreca and Matthew Neidell), *Journal of Public Economics*, August 2021, Volume 200, 104440
- **Technology and the Effectiveness of Regulatory Programs Over Time: Vehicle Emissions and Smog Checks with a Changing Fleet** (with Ryan Sandler), *Journal of the Association of Environmental and Resource Economists*, May 2020, Volume 7, Number 3, pp. 587–618
- **Estimating Causal Effects of Particulate Matter Regulation on Mortality** (with Alan I. Barreca and Matthew Neidell), *Epidemiology*, March 2020, Volume 31, Number 2, pp. 160-167

- **Success is Something to Sneeze At: Influenza Mortality in Cities that Participate in the Super Bowl** (with Charles Stoecker and Alan I. Barreca), *American Journal of Health Economics*, Winter 2016, Volume 2, Number 1, pp. 125–143
- **Caution Drivers! Children Present: Traffic, Pollution, and Infant Health** (with Christopher R. Knittel and Douglas L. Miller), *Review of Economics and Statistics*, May 2016, Volume 98, Number 2, pp. 350–366
- **Under the Cover of Darkness: How Ambient Light Influences Criminal Activity** (with Jennifer L. Doleac), *Review of Economics and Statistics*, December 2015, Volume 97, Number 5, pp. 1093–1103
- **Where Have All the Young Men Gone? Using Sex Ratios to Measure Fetal Death Rates** (with Charles Stoecker), *Journal of Health Economics*, May 2015, Volume 41, pp. 30–45
- **Verifiable and Non-Verifiable Anonymous Mechanisms for Regulating a Polluting Monopolist** (with James E. Prieger), *Journal of Environmental Economics and Management*, November 2012, Volume 64, Number 3, pp. 410–426
- **What Doesn't Kill You Makes You Weaker: Prenatal Pollution Exposure and Educational Outcomes**, *Journal of Human Resources*, Summer 2012, Volume 47, Number 3, pp. 826–850
- **Ability, Gender, and Performance Standards: Evidence from Academic Probation** (with Jason M. Lindo and Philip Oreopoulos), *American Economic Journal: Applied Economics*, April 2010, Volume 2, Number 2, pp. 95–117

## Working Papers in Revision and Review

- **The Causal Effect of Heat on Violence: Social Implications of Unmitigated Heat Among the Incarcerated** (with Anita Mukherjee), under review, available as NBER WP 28987

## Other Working Papers and Work in Progress

- **Capitalization of Flood Insurance Rates in Home Prices** (with Michael Lovenheim, Corbin Miller, and Zihan Hu)
- **Moral Hazard and Environmental Health Shocks** (with Joshua Graff Zivin, Matthew Neidell, and Gregor Singer)
- **Heat, Mortality, and Suicide in Prison** (with Anita Mukherjee)
- **Early Life Lead Exposure and Adult Suicide Rates**

## Practitioner and Non-Peer Reviewed Publications

- **Educational Benefits of Reducing Lead Exposure** (with Alex Hollingsworth, Mike Huang, and Ivan Rudik), *Econofact.org*, March 2023
- **Hotter Temperaments: Prisons and Violence in a Warming World** (with Anika Mukherjee), *Econofact.org*, November 2021
- **Pollution, the Flu Shot, and Hospitalizations**, (with Joshua Graff Zivin, Matthew Neidell, and Gregor Singer), *Econofact.org*, February 2021
- **The Spread of COVID-19 Shows the Importance of Policy Coordination** (with Joshua Graff Zivin), *Proceedings of the National Academy of Sciences*, December 2020, Volume 117, Number 52, pp. 32842–32844
- **Clearing the Air on the Costs of Air Pollution**, *Econofact.org*, October 2019
- **Fighting Crime with Daylight Saving Time** (with Jennifer L. Doleac), *Brookings Now*, October 2015
- **Navigating the Roadblocks: Identifying the Health Effects of Traffic Pollution**, *Stanford Institute for Economic Policy Research Policy Brief*, September 2011

## Research Presentations

2022: American Society of Health Economists Annual Meeting; Northeast Workshop on Energy Policy and Environmental Economics; Association for Public Policy Analysis and Management Annual Meeting

2021: Allied Social Sciences Association Annual Meeting; Association of Environmental and Resource Economists Annual Meeting; Institute of Labor Economics Workshop on Environment and Labor Markets; Institute for Economic and Social Research (IESR) at Jinan University; Climate Adaptation Research Symposium at the University of California, Los Angeles

2020: Allied Social Sciences Association Annual Meeting; Allied Social Sciences Association Annual Meeting (discussant); Colgate University (cancelled due to COVID-19); Association of Environmental and Resource Economists Annual Meeting (cancelled due to COVID-19); Association of Environmental and Resource Economists Annual Meeting; poster (cancelled due to COVID-19)

2019: Allied Social Sciences Association Annual Meeting; Allied Social Sciences Association Annual Meeting (discussant, AEA Papers and Proceedings Session); Pennsylvania State University; Miami University; University of Chicago; Association of Environmental and Resource Economists Annual Meeting; Northeast Workshop on Energy Policy and Environmental Economics at Harvard University (discussant); National Bureau of Economic Research Summer Institute (Health Economics); Heartland Environmental and Resource Economics Conference at the University of Illinois at Urbana/Champaign; Vanderbilt University; University of Ottawa; Southern Economic Association Presidential Session; Southern Economic Association Presidential Session (discussant)

2018: University of Illinois at Urbana/Champaign; UC Davis Alumni Conference; Hunter College; Allied Social Sciences Association Annual Meeting (discussant); National Bureau of Economic Research Environment and Energy Economics Meeting (discussant); American Society of Health Economists Meeting (discussant)

2017 and earlier: Allied Social Sciences Association Annual Meeting; Committee on the Status of Women in the Economics Profession Allied Social Sciences Association Session (discussant); Lafayette College; Louisiana State University; University of Connecticut; Bureau of Economic Analysis; National Bureau of Economic Research Annual Meetings: Environmental and Energy Economics (discussant); American Society of Health Economists Biennial Conference; Property and Environment Research Center; 4th Institute of Labor Economics Conference on Labor Market Effects of Environmental Policies; Cornell University; University of Chicago; Southern Economic Association Annual Meetings (several years); Tulane University; World Congress of Environmental and Resource Economists; Rice University/University of Houston; Virginia Commonwealth University; Resources for the Future; National Bureau of Economic Research Summer Institute (EEE Research Sessions); University of Essex; University of Kent; MIT CEEPR; Virginia Military Institute; Texas A&M; College of William & Mary; Simon Fraser University; University of South Carolina; DePaul University; University of Virginia; University of California; Davis; RAND; Cornell University; Stanford University; Stanford Institute for Theoretical Economics (Advances in Environmental and Resource Economics); National Bureau of Economic Research Summer Institute (EEE Group); 86th Annual Western Economic Association International Conference; National Bureau of Economic Research Children's Annual Meeting; University of California, San Diego; National Bureau of Economic Research Labor Studies Annual Meeting; Atmospheric Aerosols and Health Seminar Series, University of California, Davis; Stanford University; National Bureau of Economic Research Summer Institute (EEE Egg Timer Session); Williams College; University of Tennessee; Lewis & Clark College; Stanford University (SIEPR); University of California, Davis; California State University, Sonoma; California State University, Sacramento; All UC Labor Conference Poster Session, University of California, Riverside; University of California Energy Institute Electricity Camp, University of California, Berkeley; University of California Toxic Substances Research and Teaching Program Annual Symposium Poster Session; 84th Annual Western Economic Association International Conference; 83rd Annual Western Economic Association International Conference

## Media Citations

"How NASCAR's Switch to Unleaded Gas Boosted Test Scores Near Racetracks" (The Hill, Nov 3, 2022)

"Could Air Conditioning Help Prevent Extreme Violence in Prisons? Research Suggests So" (All Things Considered, National Public Radio, Aug 24, 2022)

"How Will We Handle Heat?" (Freakonomics, M.D. Podcast, Jun 2, 2022)

"Getting Answers: Is the Warm Weather Contributing to Crime Spike?" (TV Interview, CBS Sacramento, aired Mar 26, 2022)

- Daylight Saving Time and Crime (Radio interview, BBC World Business Report, aired Mar 16, 2022)
- "Exploring the Intersection of Economics, the Environment, and Human Behavior" (Cornellians Alumni Magazine, Oct 15, 2021)
- "Intense Heat Raises the Risk of Violence in American Prisons" (The Economist, Jul 27, 2021)
- "How Extreme Heat from Climate Change Distorts Human Behavior" (ScienceNews, Aug 18, 2021)
- "People Get Meaner and Fight More When it's Hotter, Research Reveals" (The Independent, Aug 18, 2021)
- "Lead Poisoning Hurts Kids. A New Study Shows how Exposure from an Unexpected Source — NASCAR Racetracks — Lowered Test Scores" (The 74 Million, Feb 15, 2021)
- "What NASCAR Can Teach Us About Pollution and Social Determinants of Health" (Tradeoffs, Jun 4, 2021)
- "Daylight Saving Time: The Myths and the Truths" (CNN, Mar 8, 2019)
- "Springing Forward to Daylight Saving Time is Obsolete, Confusing and Unhealthy, Critics Say" (Washington Post, Mar 9, 2019)
- "Economists Conducted a \$5 Million Experiment to (Literally) Shed Light on Crime" (Washington Post, May 14, 2019)
- "How Pollution Can Hurt the Health of the Economy," (New York Times, November 27, 2018)
- "Your Team Made it to The Super Bowl. Now Maybe It's Time For Flu Shot," (All Things Considered, National Public Radio, Feb 1, 2018)
- "The Flu and Super Bowl Fans: Who's at Risk?", (TV Interview, KARE/Minnesota NBC News Affiliate, aired Jan 31, 2018)
- "The Vaunted, Versatile VAT", (VOX Weeds Podcast, white paper section discussed "Long-Run Pollution Exposure and Adult Mortality: Evidence from the Acid Rain Program" (Nov 7, 2017)
- "The Long-Run Effects of Pollution Exposure on Mortality" (National Bureau of Economic Research Bulletin on Aging and Health, 2017, No. 3)
- "The Dynamics of Air Pollution Impacts" (National Bureau of Economic Research Reporter, 2017, No. 2)
- "Are Auto Inspections Worth It?" (Boston Globe, Nov 22, 2017)
- "New Study Shows Fans of Super Bowl Teams Have Higher Risk of Catching the Flu", (TV Interview, CNY Central NBC/CBS Affiliate, aired Feb 2, 2016)
- "Hot Takedown's Super Bowl Special" (FiveThirtyEight Data Blog, Feb 2, 2016)
- "Influenza Tackles Fans Whose Teams Make it to the Super Bowl" (Cornell Chronicle, Feb 1, 2016)
- "Your Team Made the Super Bowl? Better Get a Flu Shot" (New York Times, Feb 1, 2016)
- "Why Daylight Saving Time Could be Even More Awesome than You Think" (The Washington Post, Oct 29, 2015)
- "Paper Cuts: Do Ambient Light Levels Influence Criminal Activities?" (Significance Magazine, Official Magazine of the Royal Statistical Society, Nov 17, 2015)
- "New Study: Crime Increases when Daylight Saving Time Ends," (TV Interview, WENY CBS Affiliate, aired October 29, 2015)
- "Fall Back and Watch Out: Robbers Thrive on Standard Time" (Cornell Chronicle, Oct 29, 2015)
- "Super Bowl Team Cities See More Flu Deaths" (Scientific American, Jan 30, 2015)
- "The Super Bowl's Other Winner: The Flu" (The Atlantic, Jan 30, 2015)
- "Clean Air Act Helps Boy Babies Make it to Term" (Boston Globe, Jan 25, 2015)
- "Study Sheds Light On Criminal Activity During Time Change" (Morning Edition, National Public Radio, Nov 4, 2013)
- "How Many Baby Boys Did the Clean Air Act Save?" (Freakonomics Blog, Oct 31, 2011)

## Doctoral Advising (Initial Placement)

- Muye Chen, Ph.D. in Economics, 2022 (Amazon)
- Pamela Meyerhofer, Ph.D. in Policy Analysis & Management, 2020 (Postdoctoral Fellowship, Montana State University)
- Rhiannon Jerch, Ph.D. in Applied Economics & Management, 2019 (Temple University)

## Courses Taught

### Cornell University

- Introductory Microeconomics
- Microeconomics for Management (Master's Level)
- Microeconomics for Public Affairs (Master's Level)
- Economics and Environmental Policy
- Pollution, Climate, and Health

### College of William & Mary

- Introductory Microeconomics
- Industrial Organization
- Microeconomics of Public Policy (Master's Level)

### Stanford University

- Environmental Economics (Ph.D. Level)
- Public Policy Senior Practicum

### University of California, Davis

- Intermediate Macroeconomics
- Industrial Organization

## Awards, Honors, and Grants (Year)

Cornell Center for Social Sciences Faculty Fellow (2021-2022), Academic Venture Fund, Atkinson Center for a Sustainable Future (2019); Lone Mountain Fellowship, Property and Environment Research Center (2016); Summer Research Award, College of William & Mary (2014); Schroeder Health Center Small Grant (2013); Summer Research Award, College of William & Mary (2013); Roy J. Beaumont Departmental Award, UC Davis (2009); Graduate Travel Award, UC Davis (2009); Graduate Teaching Position Award, UC Davis (2008, 2009); Atmospheric Aerosols and Health Fellowship, UC Davis (2008); Dissertation Research Grant, UC Davis (2007); Summer Research Grant, Institute for Governmental Affairs, UC Davis (2007); Foundation for Teaching Economics Fellowship (2006); Phi Beta Kappa, inducted by Lewis and Clark College (2002); Honors in Hispanic Studies, Lewis and Clark College (2002); Dean's List, Lewis and Clark College (1999-2001); Dean's Scholar, Lewis and Clark College (1998-2002).

## Professional Activities

Reviewer: National Science Foundation

Program committee, National Tax Association, 2018 and 2019

Member: American Economic Association, Association of Environmental and Resource Economists, American Society of Health Economists

Referee reports (in approximate alphabetical order): *American Economic Journal: Applied Economics*; *American Economic Journal: Economic Policy*; *American Economic Review*; *American Economic Review: Insights*; *American Journal of Agricultural Economics*; *American Law and Economics Review*; *Annals of Epidemiology*; *Annals of Regional Science*; *B.E. Journal of Economic Analysis and Policy*; *Bulletin of Economic Research*; *Canadian Journal of Economics*; *Child Development Perspectives*; *Contemporary Economic Policy*; *Demographic Research*; *Economic Inquiry*; *Economic Journal*; *Economic Modeling*; *Economics and Human Biology*; *Economics Letters*; *Economics of Education Review*; *Education Economics*; *Education Evaluation and Policy Analysis*; *Empirical Economics*; *Environment and Development Economics*; *Environmental Research*; *Environmental and Resources Economics*; *European Journal of Health Economics*; *Evaluation Review*; *Global Epidemiology*; *Health Economics*; *Inter-Development Bank Series*; *International Journal of Environmental Research and*

*Public Health; Institute of Labor Economics World of Labor; Journal of the Association of Environmental and Resource Economists; Journal of Applied Biobehavioral Research; Journal of Applied Econometrics; Journal of Economic Behavior and Organization; Journal of Economic Geography; Journal of Environmental Economics and Management; Journal of Environmental Planning and Management; Journal of the European Economic Association; Journal of Health Economics; Journal of Housing Economics; Journal of Human Resources; Journal of Industrial Economics; Journal of Labor Economics; Journal of Political Economy; Journal of Policy Analysis and Management; Journal of Population Economics; Journal of Public Economics; Journal of Regulatory Economics; Journal of Urban Economics; Land Economics; PLOS Medicine; Proceedings of the National Academy of Sciences; Quarterly Journal of Economics; Review of Economic Studies; Review of Economics and Statistics; Science; Science Advances; Social Science Research; Sustainability; Sustainable Cities and Society; College of William & Mary Policy Review*

Referee reports by year (# completed)

2022 (19), 2021 (21), 2020 (27), 2019 (27), 2018 (16), 2017 and earlier (89)