

Nikolaos (Nikos) Ziropiannis

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Professional Appointments

Assistant Professor, Paul O'Neill School of Public and Environmental Affairs, Indiana University Bloomington, 2020 to present

Affiliated Faculty, Environmental Resilience Institute, Indiana University Bloomington, 2019 to present

Affiliated Faculty, International Studies Department, Hamilton Lugar School of Global and International Studies, Indiana University Bloomington, 2016 to present

Affiliated Faculty, The Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis, 2015 to present

Affiliated Faculty, Integrated Program in the Environment, Indiana University Bloomington, 2015 to present

Assistant Scientist, Paul O'Neill School of Public and Environmental Affairs, Indiana University Bloomington, 2015 to 2020

Visiting Assistant Professor, School of Public and Environmental Affairs, Indiana University Bloomington, 2013 to 2015

Education

Ph.D. Resource Economics, University of Massachusetts Amherst, 2013

M.S. Resource Economics, University of Massachusetts Amherst, 2008

M.Sc. Environmental Sustainability, University of Edinburgh, U.K., 2006

B.A. Business Administration, Athens University of Economics and Business, Greece, 2003

Fields of interest

Applied Econometrics, Environmental and Natural Resource Economics, Environmental Policy, Energy Policy, Water Policy.

Research

Peer Reviewed Papers

(Asterisks indicate graduate student co-authors)

Hollingsworth, A.J., Konisky, D.M., and **Ziropiannis, N.** (2022). Excess emissions: Environmental impacts, health effects, and policy debate. Provisionally accepted by the *Review of Environmental Economics and Policy*

Hollingsworth, A.J., Konisky, D., and **Ziropiannis, N.** (2021). The Health Consequences of excess emissions: Evidence from Texas. *Journal of Environmental Economics and Management* 108 <https://doi.org/10.1016/j.jeem.2021.102449> .

Ziropiannis, N., Simon, D., and Hollingsworth, A. (2020). Estimating Co-Pollutant Benefits from Climate Change Policies in the Electricity Sector: An Empirical Approach. *Energy Economics* 90 <https://doi.org/10.1016/j.eneco.2020.104863> .

- Stranlund, J.K., Murphy, J.J., Spraggon, J.M., and **Zirogiannis, N.** (2019) Tying enforcement to prices in emissions markets: An experimental evaluation. *Journal of Environmental Economics and Management* 98 <https://doi.org/10.1016/j.jeem.2019.07.001>.
- *Li, Z., Konisky, D., and **Zirogiannis, N.** (2019). Racial, Ethnic and Income Disparities in Air Pollution: A Study of Excess Emissions in Texas. *PLOS ONE* <https://doi.org/10.1371/journal.pone.0220696>
- Carley, S., **Zirogiannis, N.**, Siddiki, S., Duncan, D., and Graham, J.D. (2019) Overcoming the Shortcomings of Plug-In Electric Vehicle Policies. *Renewable and Sustainable Energy Reviews* 113: 109291.
- Carley, S., **Zirogiannis, N.**, Duncan, Siddiki, S., and Graham, J. D. (2019) An Analysis of the Macroeconomic Effects of the 2017-2025 Federal Fuel Economy and Greenhouse Gas Emissions Standards. *Journal of Policy Analysis and Management*, 38(3): 732-763.
- Zirogiannis, N.**, Duncan, D., Carley, S., Siddiki, S., and Graham, J. D. (2019). The Effect of Corporate Average Fuel Economy Standards on Vehicle Sales Projections: A Total Cost of Ownership Approach. *Transport Policy*, 75: 70-87.
- Zirogiannis, N.**, Krutilla, K., Tripodis, Y., and *Fledderman, K. (2019). Human Development Over Time: An Empirical Comparison of a Dynamic Index and the Standard HDI. *Social Indicators Research*, 142(2): 773-798.
- Duncan, D., *Ku, A., *Julian, A., Carley, S., Siddiki, S., **Zirogiannis, N.**, and Graham, J.D. (2019). Most Consumers Don't Buy Hybrids: Is Rational Choice a Sufficient Explanation? *Journal of Benefit-Cost Analysis*, 10(1): 1-38.
- Jenn, A., Hardman, S., Carley, S., **Zirogiannis, N.**, Duncan, D., and Graham, J.D. (2019). Cost Implications for Automaker Compliance with Zero Emissions Vehicle Requirements. *Environmental Science and Technology*, 53(2): 564-574.
- Carley, S. Davies, L., Spence, D., and **Zirogiannis, N.** (2018). Empirical Evaluation of the Stringency and Design of Renewable Portfolio Standards. *Nature Energy* 3: 754-763.
- Siddiki, S., Carley, S., **Zirogiannis, N.**, Duncan, and Graham, J. D. (2018). Does Dynamic Federalism Yield Compatible Policies? A Study of the Designs of Federal and State Vehicle Policies. *Policy Design and Practice* 1(3): 215-232.
- Zirogiannis, N.**, Hollingsworth, A., and Konisky, D. (2018). Understanding Excess Emissions from Industrial Facilities: Evidence from Texas. *Environmental Science and Technology* 52(5): 2482-2490.
- Zirogiannis, N.**, and Tripodis, Y. (2018). Dynamic Factor Analysis for Short Panels: Estimating Performance Trajectories for Water Utilities. *Statistical Methods and Applications* 27(1): 131-150.
- Tripodis, Y., Alosco, M.L., **Zirogiannis, N.**, Gavett, B.E., Chaisson, C., Martin, B., McClean, M.D., Mez, J., Kowall, N., and Stern, R.A. (2017). The effect of traumatic brain injury history with loss of consciousness on rate of cognitive decline among older adults with normal cognition and Alzheimer's disease dementia. *Journal of Alzheimer's Disease* 59 (1): 251-263.
- Timmons, D., **Zirogiannis, N.** and *Lutz, M. (2016). Location matters: Population density and Carbon Emissions from U.S. Residential Building Energy Use, *Energy Research and Social Science* 22: 137-146.
- Zirogiannis, N.**, *Alcorn, J., Rupp, J., Carley, S., and Graham, J.D. (2016) State regulations of unconventional gas development in the U.S.: An empirical evaluation. *Energy Research and Social Science* 11: 142-154.

- Zirogiannis, N., *Alcorn, J., *Piepenburg, J. and Rupp, J. (2015)** I want in on that: Community-level Policies for Unconventional Gas Development in New York. *Agricultural and Resource Economics Review* 44 (2): 164-194.
- Tripodis, Y. and **Zirogiannis, N. (2015)** Dynamic Factor Analysis for Multivariate Time Series: An Application to Cognitive Trajectories. *International Journal of Clinical Biostatistics and Biometrics* 1 (1): 1-8.

Book Chapters

- Konisky, D.M., **Zirogiannis, N.**, and Carley, S. (2021). Building Resilience to the Energy Transition in Indiana, in *Climate Change and Resilience: Lessons for Hoosiers and Beyond*, McCabe, J.G., Filippelli, G.M., Novick, K.A., and Shanahan, J., eds. Indiana University Press, forthcoming.

Work in progress

- Zirogiannis, N.**, Hollingsworth, A.J., and, Konisky, D. (2020) The design and implementation of a welfare enhancing regulatory framework for excess emissions.
- Zirogiannis, N.**, *Byrne, A., Hollingsworth, A.J., and, Konisky, D. (2020) The Environmental Justice implications of zoning laws: Evidence from Concrete Batch Plants

Peer Reviewed Policy Reports

- Carley, S., Duncan, D., Graham, J. D., Siddiki, S., and **Zirogiannis, N.**, 2017. “A Macroeconomic Study of Federal and State Automotive Regulations: With Recommendations for Analysts, Regulators, and Legislators.” [Peer-reviewed document]. Published by SPEA.
- Carley, S., Duncan, D., Esposito, D., Graham, J. D., Siddiki, S., and **Zirogiannis, N.**, 2016. “Rethinking Auto Fuel Economy: Technical and Policy Suggestions for the 2016-17 Midterm Reviews.” [Peer-reviewed document]. Published by SPEA.

Editor reviewed journal articles

- Zirogiannis, N.**, Hollingsworth, A.J., and Konisky, D.M. “Excess emissions from Industrial Facilities: What are they and why should we care about them?” *Insight into Manufacturing Policy*, October 2018
- Zirogiannis, N.**, Carley, S., Duncan, D., Siddiki, S., and Graham, J. D. (2017). Fuel Economy Standards and the US Economy. *Insight into Manufacturing Policy*, 2: 1-5.
- Zirogiannis, N.**, Moffitt, L.J., Danilenko, A., Rop, R. and Otiego, L. (2012). How healthy is your utility? Consolidating performance and vulnerability to assess utility maturity. *Water Utility Management International*, 7(2): 19-23.
- Moffitt, L.J., **Zirogiannis, N.**, Danilenko, A. (2012) Developing a robust water utility vulnerability index. *Water Asset Management International*, 8 (1): 6-11.
- Zirogiannis, N.** (2008). Cotton subsidies and non-sustainable production in West and Central Africa. *The International Journal of Rural Development*, 42(5): 33-35.

Op-Eds, Public Comments

- Hollingsworth, A.J., Konisky, D., and **Zirogiannis, N.** (2019). Public comments submitted to the US Environmental Protection Agency on the Withdrawal of Finding of Substantial

Inadequacy of Implementation Plan and of Call for Texas State Implementation Plan Revision-Affirmative Defense Provisions (Docket ID No EPA–R06–OAR–2018–0770).
Zirogiannis, N., Hollingsworth, A.J., and Wing, C. “Where did all the health benefits go? Evaluating EPA’s repeal of the Clean Power Plan”, SPEA Advance, March 2018.
Zirogiannis, N., Hollingsworth, A.J., and Konisky, D.M., “Air pollution from industrial shutdowns and startups worse than thought”, The Conversation, February 14th 2018. Reprinted in the Chicago Tribune (2/14/18), and the Houston Chronicle (2/14/18)

Grants

“Community Air Quality Networks and Health Outcomes: A comparison of two study sites” PI with Co-PIs Alex Hollingsworth, David Konsiky and Gabriel Filippelli. Indiana University Faculty Research Support Program-Seed Funding. \$26,670. 2021-2022
 “Study of the macro-economic impact of the light-duty vehicle corporate average fuel economy, greenhouse gas and zero-emission vehicle standards: Phases II and III” Co-PI with John Graham (PI), Sanya Carley, Denvil Duncan and Saba Siddiki. Alliance for Automobile Manufacturers. \$590,000. 2016-2017

Conference Proceedings

Simon, D., **Zirogiannis, N.**, and Hollingsworth, A. (2017). Estimating Co-Pollutant Benefits from Climate Change Policies in the Electricity Sector: An Empirical Approach. Presented at the AAEA Annual Meeting in Chicago, IL. July 30-August 1, 2017
 Kobayashi, M., **Zirogiannis, N.**, Rollins, K. and Evans, M.D.R. (2010). Estimating Private Incentives for Wildfire Risk Mitigation: Determinants of Demands for Different Fire-Safe Actions. Selected Paper 11730, Presented at the AAEA, CAES, & WAEA Joint Annual Meeting in Denver, CO. July 25-July 27, 2010.

Invited Talks, Webinars, Panel Presentations

The environmental and health impacts of excess emissions: Evidence from Texas. Webinar presentation at the Environmental Protection Agency, Office of Air and Radiation, Aug. 19th 2021
 The Future of Europe Series: Climate Change and Energy Policy. Virtual Panel, Institute for European Studies Center, Hamilton Lugar School, Indiana University Bloomington, November 5th 2021
Zirogiannis, N., Alcorn, J., Rupp, J., Carley, S., and Graham, J.D. (2016). State regulations of unconventional gas development in the U.S.: An empirical evaluation. Invited talk at the IU Geography Department, December 4th 2015.

Conference Presentations

Zirogiannis, N., *Byrne, A., Hollingsworth, A.J., and, Konisky, D. (2022) Emitting under the radar: The Environmental Justice implications of Concrete Batch Plants in Houston, Association of Environmental and Resource Economists Annual Summer conference, June 1-3 2022, Miami, Florida
 Hollingsworth, A.J., Konisky, D., and **Zirogiannis, N.** The Health Consequences of excess emissions: Evidence from Texas, 2020: Mid-West Applied Microeconomics Workshop, Purdue University, February 28, Lafayette IN

2021: 85th Annual Midwest Economics Association Conference (Virtual), March 24th;
 AAEA & WAEA Joint Annual Meeting (Hybrid) August 1-3 Austin, Texas

Zirotgiannis, N., Duncan, D., Carley, S., Siddiki, S., and D., Graham, J. D. (2017). The Effect of Corporate Average Fuel Economy Standards on Vehicle Sales Projections: A Total Cost of Ownership Approach. Association of Environmental and Resource Economists Annual Meeting May31-June 2, Pittsburgh, PA

Zirotgiannis, N., Hollingsworth, A., and Konisky, D. (2017). An Empirical Analysis of Excess Emissions from Industrial Facilities, Northeastern Agricultural and Resource Economics Association meeting June 11-13 2017, Washington, DC

Simon, D. and **Zirotgiannis, N.** (2015). Greenhouse gas emissions and criteria air co-pollutants: Evidence from US Power Plants. Northeastern Agricultural and Resource Economics Association meeting June 28-30 2015, Newport, RI

Publicity and Media Mentions

Levy, M. G. (2021). “How Many People Die When Polluters Exceed their Limits?” WIRED ([link](#))

IU Newsroom (2018). “States Boost Renewable Energy and Economic Development When Utilities Adopt Renewable Standards”, July 23rd ([link](#))

Fogel, B. (2018), “News Roundup: Researchers Estimate Impact of Excess emissions on Texans’ Health”, Texas Standard, Feb. 16th ([link](#))

IU Newsroom (2018). “Excess emissions make significant contribution to air pollution, study finds”, Feb. 14th ([link](#))

Reilly, S. (2018). All states must track “excess emissions” – study, E&E News, Feb. 15th ([link](#))

IU Newsroom, (2016), “Low gas prices justify rethinking of fuel economy regulations, IU report finds” Feb. 4th ([link](#))

Interviewed on WTIU News (aired on Feb. 5th 2016) regarding policy report “Rethinking Auto Fuel Economy: Technical and Policy Suggestions for the 2016-17 Midterm Reviews.”

Teaching

- R674: **Energy Economics and Policy**, Spring 2021-2022
- R532: **Water Policy and Economics**, Fall 2014, Spring 2016, Fall 2018-2022
- E400/R535: **International Environmental Policy**, Spring 2014-2015, Fall 2020-2022
- E183: **Environment and People**, Spring 2014, Fall 2014, Spring 2019-2022
- ECON-E 309: **Public Policy and Economics**, Spring 2019-2020
- INTL-I 300 (Honors): **International Energy Markets: Environmental, Economic and Health Aspects**, Fall 2018-2019
- INTL-I 300 (Honors): **Global Environmental Institutions and Development**, Fall 2016-2017
- V550/V710: **Domestic Environmental Policy**, Fall 2013
- V449: **Senior Policy Seminar**, Fall 2013-2014

Professional Service

Referee and Reviewer Service

Journal of Environmental Economics and Management
 Ecological Economics
 Energy Economics

Energy Journal
Energy Research and Social Science
Environmental Pollution
Environmental and Resource Economics
Rural Sociology
Public Administration Review

School and University Service

Member, Executive Committee of the Integrated Program for the Environment, IU Bloomington, 2021-present
Coordinator of O'Neill School Environmental Policy Seminar Series, 2020-present
SPEA 183 Environment and People lead instructor, O'Neill SPEA, 2020-present
Advisory Board Member, Campus Writing Program, IU Bloomington, 2016-2020
Member, Dual Degree Curriculum Committee, SPEA IU Bloomington, 2016-present
Member, PhD qualifying exam committee in Environmental Policy, SPEA, IU Bloomington, 2013-2015, 2020-present
Member, Master's in Public Affairs Admissions Committee, SPEA IU Bloomington, 2019
Member, Visiting Scholars Selection Committee, The Ostrom Workshop, IU Bloomington 2016

Professional Development

Social Science Network & Robert Wood Johnson Foundation Health Equity Scholars Program
2021-2022 cohort
Northeastern Agricultural and Resource Economics Association Career Mentoring Program,
2015-2017 cohort
Participant at the 2014 Course Development Institute, Center for Innovative Teaching and Learning, Indiana University Bloomington, June 2014

Consulting

Short-term consultant for the World Bank, Washington, DC, August 2010-March 2011

Honors and Awards

Trustees Teaching Award, O'Neill SPEA, IU Bloomington, 2022
Graduate Teaching Award, O'Neill SPEA, IU Bloomington, 2021
Best Graduate Student award, Department of Resource Economics, University of Nevada Reno, 2010
Carolyn Harper Research Fellowship, Department of Resource Economics, University of Massachusetts Amherst, 2007
Vijay Bhagavan Teaching Assistant of Distinction Award, Department of Resource Economics, University of Massachusetts Amherst, 2007
William Dickinson Travel Grant, University of Edinburgh, U.K., 2007

Professional Society Memberships and Affiliations

Agricultural and Applied Economics Association
Northeastern Agricultural and Resource Economics Association
Association of Environmental and Resource Economists
European Association of Environmental and Resource Economists