RUOHAO ZHANG

The Pennsylvania State University
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EMPLOYMENT

Assistant Professor, Department of Agricultural Economics, Sociology & Education
The Pennsylvania State University 2023 - Present

Visiting Researcher, Economics Department
Binghamton University 2022 - Present

Assistant Professor of Data Science, Economics & Environmental Studies
Centre College 2022 - 2023

Postdoctoral Fellow, Kellogg School of Management
Northwestern University 2021 - 2022

Postdoctoral Fellow, Pritzker School of Law
Northwestern University 2021 - 2022

EDUCATION

Ph.D. Economics, Binghamton University 2016 – 2021
Dissertation Title: Air Pollution, Environmental Regulation and Social Equity

M.S. Statistics, Syracuse University 2013 – 2016

M.A. Economics, Syracuse University 2013 – 2015

B.S. Information Management and Economics, University of International Relations 2009 – 2013

RESEARCH FIELDS

Environmental Economics, Health Economics, Applied Microeconomics, Econometrics

PUBLICATIONS

1. **Zhang R.**, Li H. and Khanna N. "Firm Behavior under Unanticipated Change in Regulation: Power Plant Emissions During the 2018 – 2019 Federal Government Shutdown", forthcoming at *Journal of the Association of Environmental and Resource Economists.*

2. **Zhang R.** and Khanna N. (2024). "Public Pressure and Heterogeneous Effects of Voluntary Pollution Abatement", *Journal of the Association of Environmental and Resource Economists*, 11(3):719-754.

3. Vladimir A., Barreto Parra P.N., Franchi L., Whittle J., Meurer J., Weston B., Luo E., Yuan A., **Zhang R.** and Black B. (2024). "Evidence on COVID-19 Mortality and Disparities Using a Novel Measure, COVID Excess Mortality Percentage: Evidence from Indiana, Wisconsin, and Illinois", *PLOS ONE*, 19(1):e0295936.

4. Vladimir A., Barreto Parra P.N., Whittle J., Meurer J., Weston B., Luo E., Yuan A., Franchi L., **Zhang R.** and Black B. (2023). "Selection Effects and COVID-19 Mortality Risk after Pfizer vs. Moderna Vaccination: Evidence from Linked Mortality and Vaccination Records", *Vaccines*, 11(5):971.

5. **Zhang R.**, Li H., Khanna N., Krupnick A., Hill E. and Sullivan D. (2023). "Air Quality Impacts of Shale Gas Development in Pennsylvania", *Journal of the Association of Environmental and Resource Economists*, 10(2):447-486.

6. Vladimir A., Barreto Parra P.N., Whittle J., Meurer J., Weston B., Luo E., Franchi L., Yuan A., **Zhang R.** and Black B. (2023). "Understanding COVID-19 Vaccine Effectiveness Against Death Using a Novel Measure: COVID Excess Mortality Percentage", *Vaccines*, 11(2):379.
7. Barreto Parra P.N., Vladimir A., Meurer J., Whittle J., Luo E. , **Zhang R.** and Black B. (2022) "The Effect of the COVID-19 Pandemic on the Elderly: Population Fatality Rates, Years of Life Lost, and Life Expectancy", *The Elder Law Journal*, 30(1):34-84
8. **Zhang R.** (2022). "Economic impact payment, human mobility and COVID-19 mitigation in the USA", *Empirical Economics*, 62(1):3041-3060.
9. **Zhang R.**, Li H. and Khanna N. (2021). "The Environmental Justice and the COVID-19 Pandemic: Evidence from New York State", *Journal of Environmental Economics and Management*, 110(1):102522.
10. **Zhang R.**, Kumbhakar S. C., and Lai H. (2021). "Estimation of Panel Model with Heteroscedasticity in both Idiosyncratic and Individual Specific Errors", *Econometric Reviews*, 40(4):415–432.

GRANTS

1. "From Awareness to Action: Assessing PFAS exposure in communities and evaluating the effectiveness of its mitigation strategies" (PI), *Illinois-Indiana Sea Grant*, $100,000; 2023 – 2025
2. "Heat Waves, Household Adaption, and Infant Health in California" (PI), *Penn State Institute of Energy and the Environment*, $33,000; 2024 – 2025

SELECTED WORKING PAPERS

1. **Zhang R.** and Khanna N. "Strategic Local Regulators and the Efficacy of Pollution Standards", Working Paper (presented at *AERE 2021*, *ASSA 2022*, *APPAM 2022*).
2. **Zhang R.** "Behind Environmental Injustice: Disparate Siting Industries and Post-siting Local Demographic Transformation", Working Paper (presented at *ASSA 2023*).
3. Wang T. and **Zhang R.** "Environmental Regulation and Performance of Chinese Manufacturing Firms", Under Review (presented at *CES 2023*).

SEMINAR AND CONFERENCE PRESENTATIONS

- **2024** Rutgers University | Association of Environmental and Resource Economics (AERE) | Northeastern Agricultural and Resource Economics Association (NAREA) | International Association for Great Lakes Research (IAGLR)
- **2023** Allied Social Sciences Associations (ASSA) | Chinese Economists Society North America Conference | Penn State University | East Carolina University | Climate Change Economics Forum Online Seminar
- **2022** Allied Social Sciences Associations (ASSA) | Association of Environmental and Resource Economics (AERE) | Skidmore College | Centre College
- **2021** Allied Social Sciences Associations (ASSA) | Association of Environmental and Resource Economics (AERE) | Agriculture and Applied Economics Association (AAEA) | Midwest Economics Association (MEA) | Northeastern Agricultural and Resource Economics Association (NAREA) | The Online Summer Workshop in Environment, Energy, and Transportation Economics (OSWEET)

- **2020** Association of Environmental and Resource Economics (AERE) | Agriculture and Applied Economics Association (AAEA) | Western Economic Association (WEA) | Southern Economics Association (SEA) | Northeastern Agricultural and Resource Economics Association (NAREA) | Binghamton University | Delhi School of Economics
- **2019** Agriculture and Applied Economics Association (AAEA)

FELLOWSHIPS, HONORS AND AWARDS

Harrington Faculty Fellowship, University of Texas Austin, 2024 (declined)
Alice E. Trost Dissertation Award, Economics Department, Binghamton University, 2021
Graduate Student Excellence Awards in Research, Binghamton University, 2021
Economics Department Fellowship for Professional Development, Binghamton University, 2020
Travel Grant, Binghamton University, 2019

PROFESSIONAL ACTIVITIES AND SERVICES

AAEA Topic Leader for the Environmental Economics and Policy Section, 2024 - 2026
NAREA Master Thesis Award Committee Chair, 2024 - 2026
Penn State AESE Department Award Committee Member, 2024 - now
Penn State AESE Department Search Committee Member, 2024 - 2025
Penn State EEFE Ph.D. Qualification Exam Committee Member, 2023 - now

Referee for *AAEA*, *NAREA*, *JAERE(×3)*, *JEEM(×2)*, *JPAM(×1)*, *Economic Modelling (×1)*, *Oxford Bulletin of Economics and Statistics (×1)*, *Empirical Economics (×4)*, *International Journal of Public Health(×1)*, *Review of Policy Research(×1)*, *Environmental Justice (×1)*.

ADVISING EXPERIENCE

Jiahui Guo, Committee Chair, Penn State University, Ph.D. in Environmental, Energy, and Food Economics (in progress)
Junxian Tang, Committee Chair, Penn State University, Ph.D. in Environmental, Energy, and Food Economics (in progress)
Mengjun Ge, Committee Member, Penn State University, Ph.D. in Environmental, Energy, and Food Economics (in progress)

MEDIA COVERAGE

"Understanding COVID-19 Vaccine Effectiveness Against Death Using a Novel Measure: COVID Excess Mortality Percentage":
U.S. NEWS, The Atlantic
"The Environmental Injustice of the COVID-19 Pandemic: Evidence from New York State":
BingU News
"Air Quality Impacts of Shale Gas Development in Pennsylvania":
Environmental Health News, BingU News, WBNG News Channel 12, Greensboro News & Record