

Jiameng Zheng

University of Texas at Austin
LBJ School of Public Affairs

Email : jiameng.zheng@utexas.edu
Phone : +1 (240)-383-9809

EDUCATION

University of Texas at Austin

Ph.D. in Public Policy

May 2021 (Expected)

- **Dissertation:** Essays on the Economics of Water Pollution

University of Maryland, College Park

M.P.S in Public Administration

2014

Wuhan University

Bachelor of Economics

2012

TEACHING AND RESEARCH FIELDS

Fields: Environmental Economics and Policy

Sub-Fields: Labor Economics, Development Economics

PUBLICATIONS

Published journal article

Yusuke Kuwayama, Sheila M.Olmstead, , Derek C. Wietelman and **Jiameng Zheng**, 2020. Trends in nutrient-related pollution as a source of potential water quality damages: A case study of Texas, USA. *Science of The Total Environment*, 724, p.137962.

Non-Peer Reviewed Publications

Libin Zhang, Sheng Shao, Fang Dong, and **Jiameng Zheng**, 2020. Access to Water for Hydraulic Fracturing in China. In *Regulating Water Security in Unconventional Oil and Gas* (pp. 113-134). Springer, Cham.

WORKING PAPERS

A more comprehensive estimate of the value of water quality

with Yusuke Kuwayama and Sheila Olmstead, in revise and resubmit

- Prior work suggests that, unlike air pollution regulation, the marginal cost of ambient water pollution regulation in the United States often exceeds its marginal benefit. This paper provides some intuition, theory and empirical evidence suggesting that the typical hedonic property model – a common revealed-preference approach in the literature valuing environmental amenities – may tend to understate MWTP for the improved recreational opportunities that better water quality affords to local homeowners. Using the case of nutrient pollution in Tampa Bay, Florida, we estimate MWTP for water quality improvements by combining a recreation demand model with a hedonic housing model, allowing households to optimize over regional aquatic recreation opportunities (influenced by pollution in recreational waters) as well as ambient water quality very close to homes. Results indicate that homeowners have significant MWTP for both improvements in local ambient water quality and improvements in regional recreational waters. Our recreational benefit estimates are much larger than those we estimate for local amenity values, suggesting that prior hedonic studies may underestimate the value of water pollution control.

Suicide and Lithium in the Public Water Supply of 870 US Counties

with Sheila Olmstead and Paul von Hippel

- Several studies have reported that suicide rates are lower in areas with higher concentrations of lithium in drinking water. Some authors have recommended adding lithium to the public water supply. We estimate the association between suicide and drinking-water lithium in the largest dataset yet used for this purpose. In 870 US counties, we regress county suicide rates on lithium concentrations in groundwater and surface water. We control for spatial correlation and county-level correlates of suicide rates, including economic conditions and religious, racial, and ethnic composition. With or without covariates, we find no significant association between county suicide rates and the concentration of lithium in the water supply. Our results do not support a policy of adding lithium to the water supply.

Policy instruments for water pollution control in developing countries

with Sheila Olmstead, conditional accept at the *Review of Environmental Economics and Policy*

- This paper surveys the economic theory behind regulatory and other solutions to the stark ambient water pollution problems that exist in many developing countries, and what is known from the empirical economics literature about the effectiveness of these solutions. We also consider challenges for water pollution control policies that may be specific to developing country settings and summarizes gaps in the empirical literature on water pollution policy impacts in developing countries.

WORKS IN PROGRESS

Lead exposure, human capital formation, and inequality: the impacts of lead exposure on long-run labor market outcomes

Job Market Paper

- This paper estimates the short-run and long-run impacts of early childhood lead exposure from drinking water on educational outcomes, the spatial and demographic distribution of these impacts, and the welfare impacts of lead abatement policies. I merge data from the U.S. Environmental Protection Agency on lead violations under the Safe Drinking Water Act with data on individual standard test scores, educational attainment, and wages from restrictive-use Texas data. I also match lead concentration in drinking water with Blood Lead Levels (BLLs) data, education and labor-market outcomes for a subgroup of individuals for whom we can identify their drinking water provider in Texas to understand the dose-response impacts of lead in drinking water. I find that lead exposure at birth from drinking water has significant negative impact on students' 3rd grade standard test scores. In the long run, it also significantly reduce the high school graduation rate.

Do River Chiefs Reduce Surface Water Pollution in China?

- In 2016, the central government in China passed on new policy appointing local government officials as river chiefs across the country, making them responsible for water resource management. The river chief mechanism assigns each section of rivers and lakes in China with river chiefs by the end of 2018. Since the announcement of this new policy, an ongoing debate has begun on the possible effectiveness of river chiefs in reducing pollution. In this paper, I contribute to the debate by empirically investigating the effect of the River Chief Mechanism on water quality in China. I construct a data set combining surface water quality data from various sources in China and collect data on the dates each province and city make initial announcements of its river chiefs. An event study analysis is performed to understand the impact of river chief assignment on water quality.

Subway opening and air quality in China

with Xue Gao

- Using data on subway openings and daily air quality in China from 2002-2017, we measure the impact of subway openings on air quality. Existing studies have linked subway openings to air quality improvements in both developed and developing countries. But some studies found heterogeneous impacts of subway openings in Chinese cities. This study adds to the literature by focusing on subway openings and extensions to all Chinese cities from 2002-2017. Using traffic congestion data, we also test for the mechanism that could explain the impacts of subway openings on air quality.

PUBLICATIONS

Non-Peer Reviewed Publications

Zhang, L., Shao, S., Dong, F. and Zheng, J., 2020. Access to Water for Hydraulic Fracturing in China. In *Regulating Water Security in Unconventional Oil and Gas* (pp. 113-134). Springer, Cham.

RESEARCH EXPERIENCE AND OTHER EMPLOYMENT

2019	Resources for the Future, Short-term consultant
2018-2019	Office of Water, The World Bank, Short-term consultant
2016-2018	University of Texas at Austin, Research Assistant for Prof. Sheila Olmstead
2013-2015	University of Maryland College Park, Research Assistant for Prof. Elisabeth Gilmore

TEACHING EXPERIENCE

Fall, 2019	Microeconomics (graduate) Teaching Assistant, for Prof. Andrew Waxman
Spring, 2018	Environment and Resource Economics and Policy (graduate) Teaching Assistant, for Prof. Sheila Olmstead
Fall, 2017	Microeconomics (graduate) Teaching Assistant, for Prof. Sheila Olmstead
Summer, 2017-2018	Quantitative Foundation for Public Policy (undergraduate) Teaching Assistant, for Prof. Williams Spelman
Summer, 2014	Math Refresher (graduate) Teaching Assistant, Prof. Michael Busse

SCHOLARSHIPS AND FELLOWSHIPS

2019	EAERE-FEEM European Summer School Scholarship
2018-2019	University Graduate Continuing Fellowship, University of Texas at Austin
2018	Academic Competitive Scholarship, University of Texas at Austin
2014-2016	Dean's Fellowship, University of Maryland – College Park
2014	Society of Risk Analysis Travel Grant

PROFESSIONAL ACTIVITIES

Conferences

2019	EAERE-FEEM European Summer School in Resource and Environmental Economics
2017	Public Affairs Colloquium, University of Texas at Austin
2013, 2014	Society of Risk Analysis Annual Meeting
Service	Paper discussant, Annual Conference of Society of Benefit-Cost Analysis, March 2018

PROGRAMMING SKILLS

ArcGIS, Stata, R, Python, L^AT_EX

ACADEMIC REFERENCES

Prof. Sheila Olmstead (Chair)

LBJ School of Public Affairs
University of Texas at Austin
Austin, TX
USA, 78712
+1 (512)-471-2064

sheila.olmstead@austin.utexas.edu

Prof. Raissa Fabregas

LBJ School of Public Affairs
University of Texas at Austin
Austin, TX
USA, 78712

rfabregas@utexas.edu

Prof. Lynn Katz

Department of Civil, Architectural and Environmental
Engineering
Cockrell School of Engineering
University of Texas at Austin
Austin, TX
USA, 78712
+1 (512) 471-4244

lynnkatz@mail.utexas.edu

Prof. Yusuke Kuwayama

School of Public Policy
University of Maryland, Baltimore County
Baltimore, MD
USA, 21250

[kuwayama @umbc.edu](mailto:kuwayama@umbc.edu)

Prof. Andrew Waxman

LBJ School of Public Affairs
University of Texas at Austin
Austin, TX
USA, 78712

awaxman@utexas.edu