Qi Zhang

qi-zhang | qizhangecon.github.io | qz4vg@virginia.edu | 781-827-1647

Education

Ph.D. in Economics, University of Virginia — May 2026 (expected)
Fields of Interest: Applied Microeconomics, International Trade, Environmental Economics
Committee: Kerem Coşar, James Harrigan, Peter Debaere

M.S. in Economics, Tufts University — May 2020

B.S. in Labor Economics & Social Security, Zhejiang University — May 2018

Research Experience

Pollution Haven Next Door: Evidence from China — Link

- Constructed a city–industry panel using microdata on firm production and SO_2 emissions (5.36 million observations) to study cross-border pollution leakage and industrial reallocation under China's air pollution control program.
- Applied Synthetic DiD (SDID) and a triple-difference design to identify causal effects on treated and neighboring cities.
- Finding: Regulation reallocated pollution rather than fully abating it; SO_2 emissions fell by 10.7% in treated cities but rose by 20.7% in neighbors, with effects concentrated among SOEs.

First in Use, First in Right, First in Productivity? The Empirics of Prior Appropriation in Colorado

- Built a structure-level panel dataset for Colorado (9,381 diversion structures) to examine water allocation under the prior appropriation system.
- Implemented an IV design to test whether more productive structures use water in excess of their rights.
- Finding: A one–standard–deviation increase in water productivity raises the probability of excess use by 4.7 percentage points, suggesting that the current rights system may result in inefficient water use.

Making a Call on the River: Water Use in the Colorado River Basin

***Qi Zhang**, Peter Debaere, Tianshu Li (Work in Progress)*

Professional Experience

Research Assistant, University of Virginia — 2023–Present

- Cleaned and integrated daily water-use records (1.618 million observations) with water rights, diversion structures, administrative data, and GIS information to construct a structure-level panel dataset.
- Conducted descriptive statistics and data visualization (water-rights distribution, usage trends) and applied econometric methods to estimate causal impacts.
- Revised manuscripts and coordinated with the environmental engineering research team on empirical results and workflow.

Research Assistant, Tufts University — 2019–2020

- Cleaned digitized historical electricity data from the Philippines (1970–2010); used fuzzy string matching to resolve inconsistent facility names and merge records with census data.
- Applied a regression discontinuity design to estimate the causal effect of electrification on household income.
- Assisted in building and solving a two-sector model to analyze how electrification mitigates negative temperature shocks.

Teaching Assistant, University of Virginia — 2021–2024

- Led discussion/lab sections of 18 - 25 students; graded problem sets and exams.
- Held weekly office hours; mentored undergraduates on research ideation, causal inference, and writing clarity.

Honors and Awards

Varkey Family Endowed Fellowship	Tufts University	2019
Department of Economics Summer Scholarship	Tufts University	2019

Skills

Programming & Software	Python, Stata, R, ArcGIS, LaTeX, SQL, Microsoft Excel
Methods	causal inference (DiD/SDID, IV/2SLS, regression discontinuity, event study, matching), randomization inference (permutation tests), statistical modeling, regression analysis
Languages	Chinese (native), English (fluent)