

Donghao Wu

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EDUCATION

George Washington University, Washington, DC
Ph.D. in Economics

Expected Jan 2027

Dissertation Committee: Leah Brooks (Chair), Paul Carrillo, and Alessandra Fenizia

Georgetown University, Washington, DC
M.S. in Economics

May 2020

University of Maryland, College Park, MD
B.A. in Economics

May 2018

RESEARCH FIELDS

Primary: Urban Economics, Applied Microeconomics

Secondary: Public Policy, Monetary Economics

RESEARCH PAPERS

How Does City-Center Spending Respond to COVID-19 Relative to Surrounding Areas? Evidence from U.S. Metropolitan Areas [Job Market Paper]

- Uses card-transaction data aggregated to fine geographic cells and a difference-in-differences and event-study design to compare CBD and non-CBD spending across 352 U.S. metropolitan areas before and after March 2020.
- Finds that CBD spending fell by approximately 42% relative to non-CBD spending through 2020 and that the gap remained visible through 2024; higher-income consumers experienced an additional 6.3% relative decline.
- Relates city-specific estimates to pre-pandemic population and commuting patterns; declines are larger in more populous metropolitan areas and those with more non-CBD-to-CBD commuting.

Temporary Tax Relief and Consumer Demand: Evidence from US Sales Tax Holidays

(with Rui Zhong) [Working Paper]

- Studies 2023 back-to-school sales tax holidays using daily card transactions aggregated to small geographic cells and a difference-in-differences design with geographic-cell and date fixed effects.
- Finds that computer spending rises by approximately \$547 per hexagon-day during the first three days of a holiday, with little evidence of increased spending on clothing or school supplies.
- Documents spatially uneven responses within participating states and no clear offsetting losses in nearby comparison-state locations, suggesting limited cross-border displacement.

Monetary Policy Transmission to Consumption: Evidence from Transaction-Level Data

(with Ammu Lavanya) [Work in Progress]

- Uses U.S. card transactions from 2019 to 2024, mapped to 15 Personal Consumption Expenditure categories, and local projections with high-frequency monetary policy shocks.
- Preliminary estimates show that positive contractionary shocks reduce spending and negative expansionary shocks raise it; ongoing work examines asymmetry and heterogeneity across income groups and consumption categories.

RESEARCH EXPERIENCE

Federal Statistical Research Data Center, Washington, DC

May 2023 - August 2023

Research Assistant to Leah Brooks (George Washington University) and Rachel Meltzer (Harvard University)

- Built analysis-ready research files from restricted establishment-level Census microdata and proprietary CoStar and InfoUSA data to study retail-space supply, demand, and vacancy across five major U.S. cities.
- Cleaned, standardized, and linked large datasets in R across locations, establishments, leases, and time; analyzed cross-city patterns in leasing activity, rents, and space utilization.

George Washington University, Department of Economics

June 2021 - August 2021

Teaching and Research Assistant to Irene Foster

- Developed guided notes and module quizzes for the mathematics textbook “I Am Not a Math Person!” for use by more than 300 undergraduate economics students.
- Researched economic-data applications for assessment questions and proofread the manuscript for classroom adoption.

TEACHING EXPERIENCE

John Locke Institute, Public Policy Symposium, Princeton, NJ

August 2026

Preceptor

- Led daily precepts in which students evaluated competing policy arguments, developed evidence-based positions, and connected lectures to contemporary questions; guided discussion with targeted prompts while preserving student ownership of the debate.
- Designed and facilitated interactive morning activities that introduced each day's policy theme, including public choice, taxation, budget deficits, immigration, and education funding.
- Organized and supported extracurricular simulations, including Model United Nations-style and cabinet-level crisis exercises; managed briefings, procedural motions, moderated debate, and voting.
- Mentored student teams as they developed public-policy briefs and presentations, offering feedback on tradeoffs, implementation, and the clarity of their recommendations.

George Washington University, Department of Economics

August 2021 - May 2026

Graduate Teaching Assistant to Kenneth Danger and Anthony Kassekert

- Served as Head Teaching Assistant for the M.S. in Economics program (Spring 2023 - May 2026), coordinating TA assignments and schedules across courses.
- Led office hours, discussion sections, homework workshops, and exam reviews for Machine Learning, Mathematics for Economics and Probability, and Statistics for Economics.
- Developed questions for mathematics midterms and final examinations; graded assignments and exams and provided feedback to strengthen students' quantitative reasoning.
- Nominated for the 2024 Philip Amsterdam Graduate Student Teaching Award.

University of Maryland, Department of Economics, College Park, MD

August 2018 - December 2018

Teaching Assistant to Peter Coughlin - ECON 451: Public Choice

- Managed and updated the course website using HTML, held weekly office hours, and led review sessions before midterm and final examinations.

PROFESSIONAL EXPERIENCE

Intelliimpact, Remote

February 2026 - April 2026

Data Science Intern

- Built analytics pipelines integrating AMI time-series, weather, and grid-connectivity data and engineered features from load patterns, seasonality, and lagged demand for U.S. electric utility clients.
- Developed and evaluated tree-based forecasting and outage-risk models, improving predictive accuracy by approximately 10-20%, and applied clustering and anomaly-detection methods to support operational monitoring.

Public Spend Forum, Washington, DC

February 2019 - May 2020

Research Analyst Intern

- Analyzed procurement-platform data, FPDS, USAspending, and Crunchbase and designed SME surveys to identify barriers to government contracting and inform supplier onboarding.
- Classified more than 100 emerging-technology categories, developed Tableau dashboards, and expanded the supplier database by onboarding more than 43,000 technology-focused SMEs.

METHODS AND TECHNICAL SKILLS

Econometrics: Difference-in-differences, event studies, local projections, instrumental variables, A/B testing

Programming: Python (pandas, NumPy, scikit-learn), R, Stata, SQL

Data: Large-scale transaction data, foot-traffic data, and geospatial data

Visualization: Tableau, Matplotlib, Seaborn