

# Hualong (Hetty) Diao

Ph.D. candidate in Economics | Stony Brook University | hettydiao@gmail.com | 1-617-959-5281

## ABOUT ME

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- Ph.D. in Economics – expected to graduate in May 2025 – with proven expertise in statistical modeling, advanced econometrics (including time series analysis and survival analysis), and quantitative methods (such as stochastic processes and Monte Carlo simulation), alongside specialized skills in causal inference and structural estimation.
- Proficient in R, Python, Stata, MATLAB, Excel, and Fortran, with a track record in developing and validating complex economic models.
- Experience in large data collection, processing, and harmonization, as well as comprehensive data manipulation, analysis, and visualization, consistently delivering insightful results.
- Professional and research interests include applied micro econometrics and health economics.

## WORK EXPERIENCE

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**The World Bank**, *Consultant at Chief Economist Office for the Infrastructure Vice-Presidency* Washington, D.C., U.S. 2023

- Managed, cleaned, and **harmonized multiple large datasets using R and Stata**, ensuring accuracy and readiness for analysis.
- Applied **econometric models** to estimate **causal impacts using Stata**, contributing to data-driven policy insights.
- Co-authored economic notes and World Bank blog posts; conducted comprehensive literature reviews, participated in **report writing**, effectively communicating research findings to a broad audience.
- **Successfully collaborated with a diverse group** of specialists, economists, and managers.

**Stony Brook University**, *Instructor and Teaching Assistant* Stony Brook, NY, U.S. 2019 – 2024

- Instructed Intermediate Microeconomics for over 50 students, delivering clear and engaging courses, using strong **presentation skills** to simplify complex economic concepts and facilitate student understanding.
- Leveraged advanced **communication skills** to break down difficult theories and foster open dialogue that encouraged student participation and deeper learning.

**Boston University**, *Research Assistant at Economics Department* Boston, MA, U.S. 2018

- Processed the election data of an entire country over twenty years using **Stata programming**.

**The Nielsen Company**, *Consultant Intern at Automotive Research* Beijing, China 2017

- Led a group of six in constructing consumer questionnaires and summarized key findings to clients.
- **Drafted reports** on marketing analysis of auto loan, including **data visualizations** for clients.
- Initiated proposals for newly launched vehicles for an open tender.

**China Development Research Center of the State Council**, *Intern* Beijing, China 2016

- Collaborated on reviewing and organizing energy usage reports from provincial governments across the country.

## RESEARCH & WRITINGS

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*Self-Selection in Randomized Controlled Trials and Screening Decisions: Evidence from the Screening Trial for Lung Cancer (Job Market Paper)*

- Developed and estimated a **dynamic discrete-choice model** using **Maximum Simulated Likelihood method in Fortran** to explore the impact of individual beliefs, survival expectations, and perceived screening costs on lung cancer screening decisions.
- Performed **Monte Carlo simulations** to conduct policy experiments on the effects of targeted screening policies, enhanced awareness, and technological advancements on screening uptake and health outcomes.
- Paper accepted for presentation at the Committee on the Status of Women in the Economics Profession (CSWEP) and American Society of Health Economist (ASHEcon) Mentoring Workshop.

*Prevalence of Mental Illness and Supply of Medicaid-Funded Services in New York State with Xin Lu and Prof. Steven Stern*

- **Simulated** the state-wide mental illness prevalence rate using demographic information.

*Spousal Effects: Will You Quit Smoking Because of Me? with Junyu Zhang*

- Developed and estimated a **simultaneous equation model** with censored variables **using Stata and Python** to demonstrate a positive and strong spousal effect on smoking behavior.
- Paper accepted for presentation at the Western Economic Association International (WEAI) 99<sup>th</sup> Annual Conference, the 13<sup>th</sup> Annual Conference of the American Society of Health Economist (ASHEcon 2024), and the Pennsylvania Economic Association 38<sup>th</sup> Annual Conference (PEA).

*Impacts of School Violence on Mental Health and Academic Outcomes for Immigrant and Native-Born Children with Junyu Zhang*

- Developed and estimated a **simultaneous equation model** to assess the causal impacts of being bullied and bullying on mental health outcomes and subsequent academic performance.
- Paper accepted for presentation at the Pennsylvania Economic Association 38<sup>th</sup> Annual Conference (PEA).

*Cybersecurity Economics in Latin America and the Caribbean. The World Bank Blog Series. (Collaborated work, forthcoming)*

- Demonstrated that Latin America is the region with the highest growth rate of cyber incidents by processing novel large data on publicly disclosed cyber incidents.

*Cybersecurity in Healthcare Sector. The World Bank Blog Series. (Collaborated work, forthcoming)*

- Demonstrated that the healthcare sector is at the highest risk of cyber incidents and discussed the implications of this for development.

*Collaborated in World Bank book “Cybersecurity Economics for Emerging Markets”.*

- Provided background research, as well as infographics and visuals created in R.
- Using a Poisson model, demonstrated that countries with higher corruption rates and lower political stability are 75% more likely to fall victims to cybercrime.

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**EDUCATION**

Stony Brook University	Ph.D. in Economics	Expected graduation in May 2025
Boston University	M.A. in Economics	May 2019
University of International Relations	B.A. in Economics	May 2017

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**AWARDS & ACTIVITIES**

Graduate Fellowship Award including full tuition waiver and annual stipend payments \$26000 (Stony Brook University, 2019-present);

Member of the Stony Brook Economics Department Committee on Diversity and Inclusion (2020-2021);

Graduate Student Employees Union (GSEU) Professional Development Awards.

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**SKILLS & LANGUAGES**

Skills: Stata, Python, R, MATLAB, Fortran, LaTeX, Microsoft Office

Languages: English, Mandarin, Cantonese, French (Beginner)

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**CERTIFICATES**

Digital Health: Planning National Systems

(UN/World Bank certified course completion)

Online Teaching Certificate (Center for Excellence in Learning and Teaching at Stony Brook University)