Hualong (Hetty) Diao

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Research Interests

Applied Micro Econometrics, Health Economics, Labor Economics, Cybersecurity Economics

Education

Stony Brook University	Ph.D. in Economics Advisors: Steven Stern, Mark Montgomery, Sandro Brusco	Expected graduation in May 2025
Boston University	M.A. in Economics	May 2019
University of International Relations	B.A. in Economics	May 2017

Working Papers

Self-Selection in Randomized Controlled Trials and Screening Decisions: Evidence from the Screening Trial for Lung Cancer (*Job Market Paper*)
Spousal Effects: Will You Quit Smoking Because of Me? with *Junyu Zhang*
Impacts of School Violence on Mental Health and Academic Outcomes for Immigrant and Native-Born Children with *Junyu Zhang*

Working in Progress

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

Other Writings

Cybersecurity Economics in Latin America and the Caribbean. The World Bank Blog Series. (*Collaborated work, forthcoming*)
Cybersecurity in Healthcare Sector. The World Bank Blog Series. (*Collaborated work, forthcoming*)
Collaborated in World Bank book "Cybersecurity Economics for Emerging Markets". (*Published*)

Work Experience

2023/08 --- 2024/06	The World Bank, *Consultant at Chief Economist Office for the Infrastructure Vice-Presidency*
2018/03 --- 2018/08	Boston University, *Research Assistant in Economics Department*
2017/01 --- 2017/07	The Nielsen Company, *Consultant Intern in Automotive Research*
2016/09 --- 2016/12	China Development Research Center of the State Council, *Intern*

Teaching Experience

As Teaching Assistant:
Labor Theory (2024 Spring), Introduction to Economics (2019 Fall, 2020 Spring), Microeconomic Theory I (Graduate level, 2020 Fall), Microeconomic Theory II (Graduate level, 2021 Spring), Intermediate Microeconomic Theory (2021 Fall, 2022 Spring, 2024 Fall)

As Instructor:
Intermediate Microeconomic Theory (2023 Summer)

Conference Presentations

2024 Western Economic Association International (WEAI) 99th Annual Conference, the 13th Annual Conference of the American Society of Health Economist (ASHEcon 2024), and the Pennsylvania Economic Association 38th Annual Conference (PEA 2024)

2023 Committee on the Status of Women in the Economics Profession (CSWEP) and American Society of Health Economist (ASHEcon) Mentoring Workshop

Scholarships and Awards

Graduate Fellowship Award (Stony Brook University, 2019-present).
Travel Funding for Conference Presentations (Economics Department at Stony Brook University, 2024).
Member of the Stony Brook Economics Department Committee on Diversity and Inclusion (2020-2021).
Graduate Student Employees Union (GSEU) Professional Development Awards.

Computer Skills

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

Languages

English (Fluent), Mandarin (Native), Cantonese (Native), French (Beginner)

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)

References

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Professor Sandro Brusco
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Estefania Vergara-Cobos (Economist)
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Self-Selection and the Decision to Participate in Clinical Trials: Evidence from Lung Cancer Screening Trials (Job Market Paper**)**

Lung cancer is the leading cause of cancer-related deaths worldwide. To combat this, the U.S. Preventive Services Task Force recommends annual screening for high-risk individuals, based on findings from the National Lung Screening Trial (NLST). However, self-selection may reduce the effectiveness of screening in lowering mortality rates. This paper develops a dynamic discrete-choice model that incorporates both NLST participation and lung cancer screening decisions to analyze the factors influencing screening behavior and how self-selection affects health outcomes and costs. Using data from NLST and the National Health Interview Survey (NHIS 2015), the model examines beliefs about lung cancer risk, survival rates, and the costs and benefits of screening, including uncertainties caused by false positives and false negatives. The findings show that individuals with lower lung cancer risk are more likely to screen, and while trial participants who undergo screening have lower mortality rates, those in the general population who screen have higher mortality rates. Counterfactual analysis reveals that lung cancer survival benefits are limited, making 100\% screening uptake unlikely. However, targeting underrepresented groups can reduce mortality at minimal cost, and annual lung cancer screening remains the most effective strategy for saving lives.

Spousal Effects: Will You Smoke/Quit Smoking Because of Me? (with Junyu Zhang**)**

Analyzing Panel Study of Income Dynamics (PSID) data spanning from 1999 to 2019, we use a simultaneous equation model with censored dependent variables, to estimate the spousal effects on smoking behavior as well as the effects of spousal health conditions. By accounting for previous smoking behaviors, state-level cigarette taxes, and unobserved heterogeneity, the model allows us to address simultaneity, homophily, and confounding issues without concerning multiple equilibria. We also consider mental illness records, pregnancy, and health-related occupations, on which smoking awareness and attitude depend heavily. We account for the hidden states of lung disease and heart disease variables, which include: the husband and wife's respective family history of smoking and their family economic status, state-level COPD prevalence, alcohol use, and past diabetes. Our result highlights a strong and positive spousal effect on smoking behaviors. Specifically, husbands tend to smoke less if wives are associated with a higher likelihood of lung disease, while the corresponding effect is the opposite in wives' equation. Mental illness history increases the propensity and intensity to smoke for both husband and wife, with wives being statistically significant. A wife is less likely to smoke during her pregnancy, an effect that is not significant for the husband.

How Does School Violence Affect Immigrant and Native-Born Children? Exploring Impacts on Mental Health and Academic Outcomes (with Junyu Zhang**)**

This paper investigates how school violence affects academic outcomes through the impacts on mental health for native-born American and immigrant children. We highlight that preventing school violence can improve mental health and academic performance, thus enhancing economic prospects and promoting generational social mobility. We use a simultaneous equations model to exam the structural relationships of bullying involvement, mental health and academic outcomes. Analyzing the 2022 National Survey of Children's Health (NSCH2022), our findings reveal that immigrant children are generally less involved as bullies or victims than their native-born children. Yet, children in white immigrant or low-income families are more susceptible to school violence. Controlling factors like parental mental health, attitudes towards children, and life experiences, we find that immigrant children are mentally healthier compared to native-born children, except for white immigrants who experience more significant mental health challenges. Being bullied significantly increases the likelihood of experiencing mental health issues, while being a bully has a converse impact. This effect has no significant difference between immigrant and native-born children. While immigrant children perform better than native-born children academically, those from white immigrant families show worse academic performance. Mental health improves school performance, but this link is weaker in immigrant children.