

JINTAO SUN (孙津韬)

Department of Economics, Rice University ◊ Houston, TX

Tel: +1 832-407-0116 ◊ Email: jintao.sun@rice.edu ◊ Website: <https://sites.google.com/view/jintaosun/>

RESEARCH FIELDS

Market Design, Economics of Education, Applied Microeconomics.

EDUCATION

Ph.D., Economics, Rice University	2025 (Expected)
M.A., Econometrics and Quantitative Economics, Duke University	2018
B.A., Journalism, Fudan University	2016

HONORS, SCHOLARSHIPS, AWARDS & GRANTS

SSRI Graduate Student Conference Travel Grant, Rice University	2022
Dagobert L. Brito Award for Best Performance by a Recitation Instructor, Rice University	2022
Robin C. Sickles Award for Best Performance in Econometrics Qualifying Exam, Rice University	2021
Graduate Fellowship, Rice University	2019 - Present
M.A. Merit Scholar Award, Duke University	2016, 2017
National Scholarship for Overseas Master's Studies, China Scholarship Council	2016 - 2018
Duke Economics Master's Scholarship, Duke University	2016 - 2018
Outstanding Graduate Award, Fudan University	2016
Tier-1 University Scholarship, Fudan University	2014, 2015
Qinglian Scholarship, Fudan University	2013
National Scholarship, Ministry of Education of the People's Republic of China	2013
Outstanding Freshman Award, Fudan University	2012
1st Prize in National High School Physics Olympiad (Division of Jiangsu Province, China)	2011
1st Prize in National High School Mathematics Olympiad (Division of Jiangsu Province, China)	2011

WORKING PAPERS

(Job Market Paper) “Spatial Inequality and High School Choice: Implications from Mexico City”. (*with Victor Delgado and Rui Zeng*)

Abstract: The uneven spatial distribution of schools hinders high-achieving students, particularly those who are socioeconomically disadvantaged, from accessing elite education resources because of long commutes and associated cost. We study this problem within the context of COMIPEMS, a centralized system of public high school admission in Mexico City’s metropolitan area. We estimate student preferences by assuming the observed matching is stable. Our preference estimates show that students face a quality-proximity tradeoff, and such tradeoff is heterogeneous by program track (academic or non-academic). Counterfactual distance-based subsidies for poor high-achieving students would significantly increase their admissions to elite academic programs. However, prioritization policies do not work that well. Our findings call for increasing the supply of high-quality programs in remote places within this centralized assignment system.

“STEM Gender Gap in Higher Education: Demand, Supply, and Better Policies”. (*with YingHua He and Jin-Tan Liu*)

Abstract: Around the world, women are in general underrepresented in STEM majors in higher education. Utilizing economy-wide data on Taiwan’s centralized university admissions and a matching model, this paper decomposes the STEM gender gap into factors from both demand and supply sides. We find

that either the demand factors, i.e., gendered preferences, or the supply factors, i.e., gender-specific labor market outcomes after graduation, contribute to a relatively small fraction of the overall STEM gender gap. The majority of the gap results from the disproportionately low participation of female applicants in STEM subject exams required for STEM admission. Counterfactual simulations demonstrate that some commonly proposed policies are useful to improve female representation in STEM majors, especially for applicants who have taken STEM subject exams. Our findings highlight the necessity of earlier-stage interventions such as encouraging girls to get more STEM-related readiness before university application.

“The STEM Major Gender Gap: Evidence from Coordinated College Application Platforms Across Five Continents”. (with Isaac Ahimbisibwe, Adam Altjmed, Georgy Artemov, Andrés Barrios-Fernández, Aspasia Bizopoulou, Martti Kaila, Jin-Tan Liu, Rigissa Megalokonomou, José Montalbán, Christopher Neilson, Sebastián Otero, and Xiaoyang Ye)

Submitted to *American Economic Review: Insights*

Abstract: This paper uses data from coordinated application and admissions systems in Australia, Brazil, Chile, China, Finland, Greece, Spain, Sweden, Uganda, and Taiwan to document differences in gender representation among talented students applying to STEM majors. These ten settings are very different in size, economic development, culture, gender norms, and geographic location. However, in all of them, university admission decisions rely on algorithms that allocate students to specific college-major combinations based on their academic performance when applying to university. We focus on students scoring in the top 10% of the university admission exam and show that female representation among STEM-major applicants varies from 22% in Taiwan to 46% in Sweden. In the contexts we study, these differences can be driven either by gender gaps in academic performance at the time of application or by gender gaps in the programs that these top-scoring students rank in their application lists. While we find some significant variation in female representation among top 10% scores – 32.3% in Uganda to 65.6% in Sweden – we find a remarkably stable gender gap in applications to STEM across settings – between 22 and 29 percentage points in all education systems, but China and Australia, where it reaches 37% and 16% respectively. These results indicate that i.) closing gaps in academic performance is not enough to eliminate inequality in college trajectories across gender groups and ii.) the gender gap in major choices does not significantly vary with economic development.

WORK IN PROGRESS

“Priority Design, Immigration Policies, and Educational Track Sorting in Finland”. (with Qinyou Hu)

“Everybody’s Normal: A Field Experiment to Destigmatize Mental Illness among Adolescents and Parents in China”. (with Qinyou Hu and Yiming Xia)

“Right-sizing the School District: An Equilibrium Analysis of New Orleans Public Schools System”. (with Douglas Harris and Rui Zeng)

“School Choice with Latent Affordability Constraints”. (with Victor Delgado and Rui Zeng)

“Reserve-seat Policies in China’s High School Admissions”.

CONFERENCE & SEMINAR PRESENTATIONS

2024: University of Michigan IO Lunch.

2023: Rice Economics Brown Bag.

2022: Southern Economic Association 92nd Annual Meeting (Fort Lauderdale, FL).

TEACHING EXPERIENCE

Teaching Assistant, Department of Economics, Rice University
Econometrics I & II (G)

Fall 2020, Spring 2021

Research in Econometrics (UG)	Fall 2022-2024
Applied Econometrics (UG)	Spring 2022-2024
Health Economics (UG)	Fall 2021

Recitation Instructor, Fuqua School of Business, Duke University
Quantitative Business Analysis (G) Summer 2017

RESEARCH EXPERIENCE

Research Assistant, Jones Graduate School of Business, Rice University For Professor Jefferson Duarte	2023 - 2024
Research Assistant, Department of Economics, Duke University For Professor Patrick Bayer	2017 - 2018
For Professor Arnaud Maurel	2017

PROFESSIONAL ACTIVITIES

Graduate Economics Association (GEA) Representative, Rice University	2019 - Present
GIS/Data Center Assistant, Fondren Library, Rice University	2019 - 2022
Statistical Consultant, Social Science Research Institute, Duke University	2017 - 2018
Analyst Intern, Investment Banking Division, China Everbright Securities International	2015
Journalist Intern, Division of Economy and Society, The People's Daily	2014

SKILLS

Language: Chinese Mandarin (Native), English.
Programming: Stata, Matlab, R, Python, Julia, ArcGIS Pro, \LaTeX , Cluster Computing.
Certificates: Machine Learning Boot Camp (Ken Kennedy Institute, Rice University, 2023); Financial Engineering and Risk Management Specialization (Coursera, 2024).

REFERENCES

Professor YingHua He (Co-Chair, in Memoriam) Department of Economics, Rice University	Professor Flávio Cunha (Co-Chair) Department of Economics, Rice University Email: flavio.cunha@rice.edu
Professor Ying Fan Department of Economics, University of Michigan Email: yingfan@umich.edu	Professor Xun Tang Department of Economics, Rice University Email: xun.tang@rice.edu
Professor Robin Sickles Department of Economics, Rice University Email: rsickles@rice.edu	