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EDUCATION

- 2020- **Columbia University** New York, NY
MA in Economics. PhD candidate, Economics.
Fields: development, labor, entrepreneurship, trade
- 2017 **Harvard University**, A.B. Cum Laude degree in Economics. Cambridge, MA

PUBLICATIONS

Promoting Innovative Startups: Quasi-Experimental Evidence from Tunisia

With Massimiliano Cali and Bob Rijkers

Journal of Development Economics, Volume 177, 2025, 103539, ISSN 0304-3878

This paper evaluates Tunisia's "Startup Act," a policy initiative to foster innovative firms through a "start-up" label and a bundle of incentives including reduced social security contributions, corporate tax exemptions, easier access to foreign exchange, and simplified customs procedures. Detailed data on the program's selection process allow us to identify marginal entrants and rejects, and hence limit selection on unobservables. Using a difference-in-differences strategy, the program is shown to increase survival and promote job creation. A back of the envelope cost-benefit calculation suggests that the program is cost effective.

What Do Market-Access Subsidies Do? Experimental Evidence from Tunisia

With Giacomo De Giorgi, Aminur Rahman, and Eric Verhoogen

R&R at the American Economic Review

CEPR Discussion Paper No. 20398. CEPR Press, Paris & London

NBER working paper No. 33985

Many countries seek to promote exports by subsidizing market access, but evidence on such efforts has been mixed. We present the first randomized evaluation of a government financial-support program explicitly targeting exports, the Tasdir+ program in Tunisia. The program offered matching grants for fixed market-access costs but not variable costs. Tracking outcomes in administrative data, we find positive effects on exports on average. We find limited impacts on the number of destinations or exported products, which were stated policy targets. The finding that the fixed-cost subsidies expanded exports on the intensive margin but not the extensive margins of destinations or products stands in contrast to the predictions of several workhorse trade models.

WORKING PAPERS

Wage Compression and Relative-Wage Concerns Under Collective Bargaining: Evidence from Tunisia

With Trang Tran Thanh

Many countries set wage floors by occupation for both skilled and unskilled workers. Changes in these wage floors can induce wage compression within firms and reduce the skill premium. We examine the effects of this institution in the Tunisian banking sector, where a 2014 national collective bargaining agreement resulted in substantial wage compression in some branches. We find modest overall employment effects masking substantial heterogeneity by age and skill level. Hires of young workers increase. Skilled young workers separate and move to banks with higher skill premia, suggesting they quit. Survey results confirm that younger skilled workers are more sensitive to wage compression. We interpret our results through a model of monopsony with binding wage floors and relative-wage concerns. Our results challenge the view that occupation-specific wage floors are the cause of high levels of youth unemployment in settings like Tunisia and highlight a novel channel through which they shape labor market dynamics.

EXPERIENCE

2023-2025	The World Bank Short-term consultant	Washington, DC
2023	The International Monetary Fund Intern - Regional Analytics and Strategy Division	Washington, DC
2018-2020	Columbia University Project Manager	Tunis, Tunisia
2017-2018	Harvard Kennedy School, Evidence for Policy Design Research Assistant	Cambridge, MA

TEACHING

2021-	Columbia University Teaching Assistant	New York, NY
2017-2018	Harvard Kennedy School Course Assistant - Advanced Microeconomic Analysis II	Cambridge, MA

FELLOWSHIPS, AWARDS & GRANTS

2025	Center for Development Economics and Policy, Columbia University
2025	Program for Economic Research Field & Experimental Award
2024	Weiss Fund Travel Grant
2022	Center for Development Economics and Policy Research Grant
2010	Foundation of Excellence Award in Mathematics

ACADEMIC PRESENTATIONS

2025-2026 Academic Year: University of Limerick; World Bank MENAAP Chief Economist Office, North East Universities Development Consortium Conference; 2024-2025 Academic Year: Mediterranean School of Business; 2023-2024 Academic Year: Collegio Carlo Alberto

SERVICE

REFEREE – Fall 2023

Journal of Economic Behavior and Organization

MENTOR

Columbia Economics Department Undergraduate Mentoring Program

REFERENCES

Suresh Naidu
Professor of International and Public Affairs and of Economics
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Eric Verhoogen
Professor of Economics
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Michael Best
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Nikhil Basavappa

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References

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Suresh Naidu

Professor of Economics
Columbia University
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Education

Columbia University, Graduate School of Arts and Sciences Expected June 2026
Ph.D. Candidate in Economics

Boston College 2017
B.A. in Economics and English, *Cum Laude*

Research Interests

Development Economics, Environmental Economics, Agricultural Economics

Research and Teaching Experience

Research Assistantships

Research Assistant to Professor Joseph Stiglitz, Columbia University 2023–present
Research Assistant to Professor Amit Khandelwal, Columbia University Spring 2022

Teaching Assistantships

Teaching Assistant, Perspectives on Economic Studies (PhD) Spring 2022, 2023, 2024, 2025
Professors Suresh Naidu and Joseph Stiglitz, Columbia University

Teaching Assistant, Intermediate Microeconomics (Undergraduate) Fall 2023
Professor Qi Ge, Columbia University

Teaching Assistant, Principles of Economics (Undergraduate) Fall 2021, 2022
Professor Prajit Dutta, Columbia University

Other Work Experience

Massachusetts Institute of Technology, Cambridge, MA 2017–2020
Senior Research Support Associate, Department of Economics

MFS Investment Management, Boston, MA Summer 2016
Summer Intern, Compliance Department

Awards

Program for Economic Research (Columbia), Summer Research Program Award (\$8000) 2023

Program for Economic Research (Columbia), Summer Research Program Award (\$4000)	2024
Program for Economic Research (Columbia), Summer Research Program Award, (\$6000)	2025
Center for Development Economics and Policy (Columbia), Research Grant (\$1500)	2024
Wueller Fellowship for Best Teaching Fellow (Winner)	Fall 2022
Principles of Economics	
Wueller Fellowship for Best Teaching Fellow (Runner Up)	Fall 2023
Intermediate Microeconomics	

Research

Climate Maladaptation and the Commons: Groundwater Management in India (Job Market Paper)

with *Ricardo Pommer Muñoz*

Presented at [APPAM Fall Research Conference \(2025\)](#), poster awarded second place

Abstract: India is the world's largest groundwater user, with 90% used for agriculture. Groundwater, however, is a common pool resource, generating a tragedy of the commons that threatens agricultural sustainability. We develop a parsimonious model to show how a popular policy intervention — subsidizing efficient irrigation technology — can exacerbate distortions away from socially optimal groundwater extraction. We test the model's predictions by leveraging geophysical variation in extraction externalities and a \$1.35 billion program subsidizing efficient irrigation. Consistent with the model's predictions, the policy's impact depends on the severity of extraction externalities: extraction falls 9.2% in low-externality areas but rises 11.0% in high-externality areas. Low-externality farmers maintain cultivation using less groundwater, while high-externality farmers cultivate more intensively. Finally, the program causes climate-adaptive responses in low-externality areas — reducing extraction during normal rainfall and increasing it during droughts — but the opposite pattern in high-externality areas, consistent with climate maladaptation. Our findings illustrate that the same common pool conditions that typically justify an intervention may also determine its welfare implications.

Mobility, Climate Shocks, and Demand for Information: Evidence from India

with *Ricardo Pommer Muñoz*

Presented at [NetMob Conference, World Bank \(2024\)](#)

Abstract: Weather shocks pose severe risks to agricultural communities in India. Information on how to mitigate their effects, however, can be difficult to access, as it spreads slowly through potentially sparse and distant social networks. Using novel cellphone mobility data merged with over 1.5 million calls to India's national agricultural helpline, we document three patterns. First, mobility in rural India is severely constrained: over 75% of areas exhibit primarily local travel. Second, we examine how mobility and helpline calls correlate with climate shocks—heatwaves and extended droughts. While mobility increases during heatwaves, helpline calls decline. Third, this relationship varies systematically with baseline mobility levels: the negative association between climate shocks and calls is significantly weaker in low-mobility areas across multiple measures of geographic isolation. The heterogeneity is specific to agricultural information requests and concentrated during crop growing seasons.

Information Provision and Agricultural Productivity

with *Ricardo Pommer Muñoz*

Abstract: Information extension services are common in the developing world. However, these

services often “push” information regardless of whether individuals demand it, and whether or not these services improve rural livelihoods is unsettled. We study how information provision through a large agricultural call center in India impacts agricultural productivity. In comparison with other extension services, the call center is a “pull” service – farmers only receive information if they truly demand it. Leveraging a shock to access from the consolidation of the call center to one phone number and variation in cell coverage from cell towers, we find the call center led farmers to sow less land overall but produce more output per unit of area.

Frictions in Information Diffusion Among Smallholder Farmers

with [Raissa Fabregas](#) and [Jack Willis](#)

Abstract: Smallholder farmers vary substantially in their agricultural know-how, even within the same village. Do farmers value the information of others and, if so, what prevents its diffusion? We measure knowledge of, and WTP for, such information, and test interventions to encourage its diffusion and identify the corresponding frictions.

Work in Progress

Natural Disasters and the Deployment of Public Labor

with [Hannah Farkas](#) and [Ricardo Pommer Muñoz](#)

Climate Hazards and Demand for Information: Evidence from a Farmer Helpline

Policy Writing

[Harnessing the potential of community-driven groundwater management in the Global South: Experiences and recommendations](#)

with [Nitin Bassi](#), [Anik Bhaduri](#), [Soorya K K](#), [Ekansha Khanduja](#), [Ricardo Pommer Muñoz](#), and [Yashita Singhi](#)

Affiliations and Service

Fellow, Center for Development Economics and Policy (CDEP),	2025–present
Representative, Association of Graduate Economics Students (AGES)	2020–2024
Vice President	2021–2022
Co-President	2022–2023
Undergraduate Economics Mentor	2021–2023

Skills

Programming: Stata, R, Python

Languages: English (native)

GIOVANNI BONFANTI

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EDUCATION

COLUMBIA UNIVERSITY

PhD in Economics	<i>Expected graduation in May 2026</i>
MPhil in Economics	2023
MA in Economics	2022

MOSCOW STATE INSTITUTE OF INTERNATIONAL RELATIONS

MA of Economics in World Energy	2019
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BOCCONI UNIVERSITY

MSc in Economic and Social Sciences (<i>cum laude</i>)	2019
BSc in Economic and Social Sciences (<i>cum laude</i>)	2017
Singapore Management University: International Exchange Program	2017

RESEARCH INTERESTS

Primary: International Finance, International Macro, European integration

Secondary: Macro-Finance, Asset Pricing

JOB MARKET PAPER

A EUROPEAN SAFE ASSET? NOT WITHOUT THE INVESTORS with Juri Marcucci (Banca d'Italia)

Abstract: We study debt issued by the European Union (EU) as a joint and several liability of its member countries and show that it pays an interest rate higher than comparably safe, large, and liquid sovereign issuers. The unconditional spread paid by EU bonds reflects their higher sensitivity to bad news, which is especially large during periods of tightening monetary policy. Using novel data, we show that EU bonds face low inelastic demand because they are excluded from major fixed-income indices due to their lack of formal sovereign status. This translates into lower expected prices during crises, which makes EU bonds unattractive to investors with a potential need for cash, such as mutual funds and foreign central banks. Expectations of state-contingent purchases by the European Central Bank (ECB) can significantly compress this premium even if they are not targeted to EU bonds. A demand-based asset pricing framework indicates that the spread would be negligible if the EU were recognized as a fully sovereign issuer.

Presentations: Carey Finance Conference (2025), HEC Economics PhD Conference (2025), ASSA Annual Meeting (2025, poster), Macro Finance Research Summer Session (2024, poster), Society for Economic Dynamics (2024), Sovereign Debt Research and Management Conference (2024), Macro Finance Society (2024, poster)

RESEARCH IN PROGRESS

FISCAL INTEGRATION AS A PARETO IMPROVEMENT

Abstract: I develop a normative macroeconomic framework to study when fiscal integration in a currency union can constitute a Pareto improvement. The model features a safe and a risky country that can issue joint debt, whose cost depends on its equilibrium status: common borrowing functions as a safe asset only if it is sufficiently large relative to national debt to attract inelastic demand from global investors. This structure generates multiple equilibria: one with small, expensive joint issuance and another with large, low-yield common debt, where only the latter can make the safe country better off. I introduce an element of common taxation that increases welfare of both countries through risk-sharing of idiosyncratic shocks and by acting as a commitment device for the risky country. I two novel institutional features that alter these welfare effects: output spillovers that create moral hazard and an incentive for bailouts, and spending on cross-border public goods that mitigates free-riding. A simple calibration shows that modest levels of joint taxation (5–10% of output) can make debt mutualization welfare-enhancing and establish common debt as a global safe asset.

Awards: ECB Lamfalussy Research Fellowship (2024)

THE MARKET FOR INTELLECTUAL CAPITAL

with Bruno Pellegrino (Columbia Business School)

Abstract: We use a novel data source to characterize the market for intellectual property among large U.S. corporations, focusing on the licensing of proprietary technologies and trademarks. We reconstruct the network of licensing agreements and document that it forms a large, interconnected market with potential spillovers across firms linked through input–output or competitive relationships. We develop a model in which firms strategically choose whether to license part of their intellectual property, internalizing the interaction between productivity gains and the network structure of the product market. Because firms fail to internalize the positive externalities from technology transfers, the equilibrium is inefficient and provides a rationale for policies subsidizing the search and matching process. Consistent with the model, we find that the observed pattern of agreements reflects firms' strategic, network-dependent choices in transferring proprietary assets.

COMPLETE SEGMENTATION BETWEEN THE REPO AND CASH MARKET

with Vittorio Siracusa (Banca d'Italia)

RESEARCH EXPERIENCE AND OTHER EMPLOYMENT

Visiting Scholar (unpaid), Banca d'Italia, Rome	2024
Graduate Research Fellow , Department of Economics, Columbia University Professors: Stephanie Schmitt-Grohé, Martín Uribe, Serena Ng	2022-2023
Research Assistant for Global Capital Allocation Project, Columbia Business School Professors: Jesse Schreger, Matteo Maggiori, Antonio Coppola	2021
Research Assistant , Banca d'Italia - Chief Representative for North America, New York	2020
Junior Consultant , DFC Economics, Milan	2019
Trainee , DG Competition, European Commission, Brussels	2018

OTHER PUBLICATIONS

Do financial markets consider European common debt a safe asset? December 2022
Bruegel blog (with Luis Garicano)

POLICY EVENTS

Safe Asset Europei. Contesto macroeconomico, strumenti e prospettive Jan 2025
 Panel discussant at **Fondazione Astrid**, Rome

Workshop on EU borrowing costs: drivers and dynamics May 2023
 Committee on Budgets, **European Parliament**, Brussels

TEACHING EXPERIENCE

Teaching Assistant, Department of Economics, Columbia University

Econometrics of Time Series (Seyhan Erden)	Spring 2025
MA Macroeconomic Analysis I (Julian di Giovanni)	Fall 2024
International Macroeconomics (Martín Uribe)	Spring 2024
Financial Economics (Tamrat Gashaw)	Fall 2023
MA Advanced Econometrics, grader (Serguei Maliar)	Fall 2022
Intermediate Macroeconomics (Stephanie Schmitt-Grohé)	Spring 2022
Money and Banking (Elham Saeidinezhad)	Fall 2021

Teaching Assistant, Columbia Business School: Executive Education Fall 2023, Fall 2024, Fall 2025

GRANTS AND HONORS

ECB Lamfalussy Research Fellowship	2024
Wueller Travel Scholarship	2024
Columbia University GSAS PhD scholarship	2020-2026
Albert Ando and Franco Modigliani Scholarship - Bank of Italy (turned down)	2020
Dote Merito from Lombardy region	2014

LANGUAGES

Italian (native), English (fluent), Spanish (advanced), German (intermediate), Russian (intermediate)

REFERENCES

Jesse Schreger (advisor)
 Associate Professor
 Columbia Business School
 jms2476@columbia.edu

Stijn Van Nieuwerburgh
 Earle W. Kazis and Benjamin
 Schore Professor of Real Estate
 Columbia Business School
 sgv2110@columbia.edu

Tano Santos
 Robert Heilbrunn Professor of
 Asset Management and Finance
 Columbia Business School
 js1786@gsb.columbia.edu

Luigi Beneduci Caloi
Updated CV

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Mark Dean	mark.dean@columbia.edu	212-854-3669
Martin Uribe	mu2166@columbia.edu	212-851-4008

Placement Administrator:

Amy Devine	aed2152@columbia.edu	212-854-6881
Jonathan Mendoza	jam2546@columbia.edu	212-853-5501

EDUCATION

Columbia University	2020 - 2026 (expected)
PhD candidate in Economics	
Fields: Development and Public Economics	
New York University	2014 - 2018
B.S. in Business and Political Economy	

HONORS AND AWARDS

Wueller 4th-year Pre-Dissertation Award, Columbia University	2024
Wueller Teaching Award, Runner up, Columbia University	2023
Wueller Teaching Award, Runner up, Columbia University	2022
Stern Honors Program, New York University	2018

JOB MARKET PAPER

[Bonus or Budget? Equity-Efficiency Tradeoff in Performance-Based Transfers](#) (with [Andrea Ciccione](#))

Abstract: To improve service delivery, central governments often tie intergovernmental transfers to local policy performance. While such performance-based transfers can raise efficiency by incentivizing municipalities, they may also create equity losses by disproportionately rewarding high-capacity governments with larger transfers. We study this equity-efficiency trade-off using transfers to Brazilian municipalities. When two states tied transfers to relative educational performance, student test scores rose substantially: moving from the 25th to the 75th percentile of per capita conditional transfers increased scores by 0.13 standard deviations. However, the reform also widened funding disparities, as municipalities with higher pre-existing capacity received larger transfers. In contrast, contemporaneous reforms to passive transfers had negligible effects on student outcomes. A simple model of optimal transfers interprets these findings, suggesting that performance-based transfers deliver large efficiency gains, limited equity costs, and should constitute a sizable share of the optimal transfer mix. We find minimal evidence of multitasking distortions or score manipulation. Instead, we document increased education-related inputs and suggestive evidence of reduced corruption.

PUBLISHED PAPERS

[Endogenous Firm Competition and the Cyclicalities of Markups](#) (with [Hassan Afrouzi](#))
Review of Economics and Statistics, 106(6): 1638–1654 (2024)

Abstract: We show that the cyclicalities of output growth is a sufficient predictor for the cyclicalities of markups in a large class of models that micro-found variable markups through dynamic trade-offs. First, we show that this class of models imply a unified law of motion for markups in which current markup depends on firms’ expectations over future changes in demand. Second, we use data on markups from the U.S. as well as survey data on firms’ expectations from New Zealand to test the predictions of these models and find evidence in favor of their mechanisms. Finally, we study the implications of this law of motion for cyclicalities of markups in a calibrated general equilibrium model. In particular, we find that the degree of hump-shaped response in output is crucial for the direction of aggregate markup cyclicalities. To highlight the importance of this mechanism, we show that the model with a hump-shaped response of output matches the evidence on cyclicalities of markups conditional on TFP shocks, while the model without the hump-shaped response of output completely misses the direction of this cyclicalities.

WORKING PAPERS AND WORK IN PROGRESS

[Greener on the Other Side? Spatial Discontinuities in Property Tax Rates and their Effects on Tax Morale](#)
(with [Michael Best](#), [François Gerard](#), [Evan Kresch](#), [Joana Naritomi](#), and [Laura Zoratto](#))

Abstract: Governments frequently use proxies for deservingness—tags—to implement progressive tax and transfer policies. These proxies are often imperfect, leading to misclassification and inequities among equally deserving individuals. This paper studies the efficiency effects of such misclassification in the context of the property tax system in Manaus, Brazil. We leverage quasi-experimental variation in inequity generated by the boundaries of geographic sectors used to compute tax liabilities and a large tax reform in a series of augmented boundary discontinuity designs. We find that inequities significantly reduce tax compliance. The elasticity of compliance with respect to inequity is between 0.12 and 0.25, accounting for half of the overall change in compliance at the boundaries. A simple model of presumptive property taxation shows how mistagging affects the optimal tax schedule, highlighting the opposite implications of responses to the level of taxation and to inequity for optimal tax progressivity. Interpreting our findings through the lens of the model implies that optimal progressivity is around 50% lower than it would be absent inequity responses. These results underscore the importance of inequity for public policy design, especially in contexts with low fiscal capacity.

Externalities in Performance-Based Transfers (with [Sarita Quispe](#))

Quality Standards and Firm Behavior in Ethiopia? (with [Getnet Alemu](#), [Admasu Shiferaw](#), and [Eric Verhoogen](#))

Conflicts and Firm Adaptation (with [Admasu Shiferaw](#))

RESEARCH GRANTS AND FELLOWSHIPS

PER Summer funding, Columbia University	July 2025
PER Summer funding, Columbia University	July 2024
J-PAL’s Jobs and Opportunity Initiative Brazil, with Andrea Ciccarone	September 2023
PER Summer funding, Columbia University	July 2023
IGC full research projects, with Getnet Alemu, Admasu Shiferaw, and Eric Verhoogen	March 2023
Dean’s Fellowship, Columbia University	September 2020

TEACHING EXPERIENCE

Principles of Economics	Fall 2021, Spring 2023, 2024
Undergraduate course, Department of Economics, Columbia University	
Teaching assistant for Professor Sunil Gulati	
Introduction to Econometrics	Fall 2022, 2023
Undergraduate course, Department of Economics, Columbia University	
Teaching assistant for Professor Tamrat Gashaw	
Global Economy	Spring 2022
Undergraduate course, Department of Economics, Columbia University	
Teaching assistant for Professor Ronald Miller	

SEMINARS AND CONFERENCES TALKS

7th World Bank/ODI Global/IFS Public Finance Conference	2025
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ACADEMIC SERVICES

Mentor, Economics Department Undergraduate Mentoring Program, Columbia University	2022
Columbia University Development Economics Colloquium organizer	2023-2024

RESEARCH AND WORK EXPERIENCE

Research assistant, Columbia University Department of Economics	2021
With professor Michael Best	
Research assistant, Columbia University Department of Economics	2018-2020
With professors Hassan Afrouzi, Michael Best, Andrés Drenik, François Gerard, and José Olea	
Research assistant, New York University Institute for Education	2017
With professor Sean Corcoran	
Intern at the department of partnerships and innovation, Sao Paulo state's government	2016
Research analyst and advocacy manager at NGO Mapa Educação	2014-2017

PERSONAL

Languages: Portuguese (native), English (Fluent), Spanish (Intermediate)

Software skills: R, Stata, Python, LaTeX, ArcGIS, SurveyCTO, Qualtrics

Citizenship: Brazil and Spain

REFERENCES

Michael Best

Associate Professor

Department of Economics

Columbia University

michael.best@columbia.edu

Eric Verhoogen

Professor

Department of Economics

School of International and Public Affairs

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Wojciech Kopczuk

Professor

Department of Economics

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Columbia University

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Sebastián Otero

Assistant Professor

Department of Economics

Columbia University

so2699@columbia.edu

Laura Caron

Department of Economics
Columbia University
New York, NY 10027

lkc2142@columbia.edu
laurakcaron.github.io

Placement Chairs

Mark Dean (mark.dean@columbia.edu) and Martín Uribe (mu2166@columbia.edu)

Placement Administrators

Jonathan Mendoza (jam2546@columbia.edu) and Amy Devine (aed2152@columbia.edu)

EDUCATION

Columbia University, PhD in Economics (Aug 2020 – May 2026, expected)

Fields: Applied microeconomics (labor and education) and econometrics

Columbia University, MPhil in Economics (May 2023)

Columbia University, MA in Economics (May 2022)

Georgetown University, BSFS in International Political Economy with a minor in Mathematics
(Aug 2016- May 2020), *summa cum laude*

School of Foreign Service

JOB MARKET PAPER

The Short- and Long-Term Impacts of Expanding Public Education for Disabled Students.

Draft available [here](#).

Between 1949 and 1980, every U.S. state mandated public schools to provide educational services for disabled students. This is one of the largest education reforms in U.S. history, but little is known about its impacts. Given scarce data in this period, I compile survey and administrative datasets and set up a difference-in-difference design using variation in the mandates' timing. I show that the mandates increased both services for disabled students and preschool enrollments. In adulthood, disabled individuals below school age at a mandate's implementation became about 20% less likely to have no education, attained up to 0.23 more years of education, and were more likely to have worked. Although this policy could have taken away resources from non-disabled students, in fact, education and employment also increased for non-disabled individuals. These effects align with evidence that the mandates increased spending per student by up to 15%. Families were also impacted: the mandates increased employment among mothers of disabled children and the probability that disabled individuals became household heads. Over the long term, the mandates paid for themselves by generating government revenues in excess of their cost. These results provide new evidence on the large, broad impacts of expanding access to education for disabled students.

WORKING PAPERS AND WORKS IN PROGRESS

Triple Difference Designs with Heterogeneous Treatment Effects. *arXiv preprint arXiv:2502.19620* (2025). <https://arxiv.org/abs/2502.19620>

Triple difference designs have become increasingly popular in empirical economics. The advantage of a triple difference design is that, within a treatment group, it allows for another subgroup of the population—potentially less impacted by the treatment—to serve as a control for the subgroup of interest. While literature on difference-in-differences has discussed heterogeneity in treatment effects between treated and control groups or over time, little attention has been given to the implications of heterogeneity in treatment effects between subgroups. In this paper, I show that the parameter identified under the usual triple difference assumptions does not allow for causal interpretation of differences between subgroups when subgroups may differ in their underlying (unobserved) treatment effects. I propose a new parameter of interest, the causal difference in average treatment effects on the treated, which makes causal comparisons between subgroups. I discuss assumptions for identification and derive the semiparametric efficiency bounds for this parameter. I then propose doubly-robust, efficient estimators for this parameter. I use a simulation study to highlight the desirable finite-sample properties of these estimators, as well as to show the difference between this parameter and the usual triple difference parameter of interest. An empirical application shows the importance of considering treatment effect heterogeneity in practical applications.

Switching Strategies? Peer Impacts of Moving Disabled Students to General Education Classrooms (with Jesper Eriksen and Jeppe Johansen). Draft available [here](#).

Prior work has shown that placing disabled students in classrooms with non-disabled peers (“mainstreaming”) can have negative impacts on these peers, but has not fully considered the role of student mobility in understanding these impacts. Using Danish administrative data and a difference-in-difference design, we show that the arrival of a mainstreamed student in a classroom makes peers 11% more likely to switch schools in a given year. Because school switching is selective, failing to account for this when estimating peer effects may introduce substantial biases. To isolate the direct impacts of the arrival of a mainstreamed student from the indirect impacts of school switching, we study a sizeable—although potentially selected—subgroup of students who never change schools. For this subgroup, we find little evidence that the arrival of a mainstreamed student causes negative effects on attendance, test scores, or social tensions in the class. In contrast, students who do change schools experience negative impacts, which may be due either to the arrival of a mainstreamed student or the disruption caused by switching schools. These results highlight that research and policy on the inclusion of disabled students in classrooms must account for the role of student mobility in shaping outcomes.

Employer Preferences and Job-Seeker Beliefs: Experimental Evidence from the Post-College Job Search Process (with Tarikua Erda). In progress. Pre-registered in the AEA RCT Registry.

Job seekers often try to anticipate employers' preferences for job applicants, but we know little about how well they understand these preferences. We partner with a large, mid-tier public

university in the Southeastern U.S. to conduct incentivized, pre-registered experiments on both employers and job-seeking students to examine: (1) how employers evaluate candidate characteristics, (2) whether (and which) students accurately understand employer preferences, and (3) how those student beliefs relate to their job search outcomes. We find that employers value GPA and previous work experience, and we add novel systematic evidence that employers rely on information about extracurricular activities, primarily to judge candidates' non-cognitive skills. Students, however, tend to misunderstand employer preferences, generally overestimating the role of professional internships and academics and underestimating the role of extracurriculars and the number of work experiences. Incorrect beliefs are linked to lower wage offers, suggesting that poor information quality is associated with worse job outcomes. This work introduces new methodological approaches to provide evidence on information quality among job seekers, with important implications for the design of interventions to reduce information frictions in the job search process.

Women, Men, and Polya Urns. Underrepresentation at Equal Talent in the Absence of Discrimination (with Alessandra Casella and Victoria Mooers). In progress.

In a world where the majority and the minority group have equal distributions of talent, where candidates are objectively and accurately evaluated, and no discrimination occurs, the underrepresentation of the minority group in prestigious positions is nonetheless highly sticky. If the sample of candidates from the minority group is numerically smaller, at equal distribution of talent, the most qualified candidate is more likely to belong to the majority sample, mirroring its larger numerical size. If future samples of candidates respond to the realized selection in the expected direction—increasing if the selection came from the sample, decreasing or increasing less if it did not—the higher probability of success in the majority sample will persist. We capture this process with a well-known statistical model: the Polya urn. The richness of existing results and the streamlined model allow us to study and compare different policy interventions. Two robust results are that temporary affirmative action interventions have long-term equalizing effects, and that any decline in the quality of selected candidates is self-correcting, even while the intervention lasts. A simple app (<https://caron.shinyapps.io/Women-Men-Polya-Urns/>) allows readers to run their own experiments.

Households in Transit: COVID-19 and the Changing Measurement of Welfare (with Erwin Tiongson). *IZA Discussion Paper No. 15670* (2022). <https://docs.iza.org/dp15670.pdf>.

The COVID-19 pandemic placed new constraints and prices on commuting to work around the world. However, traditional methods of measuring household welfare (and, accordingly, poverty and inequality) based on expenditures or consumption have not taken into consideration the implications of these changes. We propose a new method to impute transportation cost equivalents for household consumption or expenditure aggregates. First, we outline the theory showing significant mismeasurement of welfare for households who are able to shift into remote work during the pandemic. We show that taking transportation costs into account has important implications for evaluating the impacts of the pandemic.

Jobs Interventions for Refugees and Internally Displaced Persons (with Kirsten Schuettler). Jobs Working Paper; No. 47. World Bank, Washington, DC. World Bank (2020). <https://openknowledge.worldbank.org/handle/10986/33953>.

Refugees and internally displaced persons (IDPs) often struggle to integrate into the labor market. This literature review brings together two strands of research to inform the design of successful job interventions in this context: the evidence on how forced displacement impacts those forcibly displaced in their economic lives and the existing knowledge on jobs interventions for refugees and IDPs.

ACADEMIC PUBLICATIONS

Empty Digital Wallets: New Technologies and Old Inequalities. *Oxford Open Economics* 1 (2022). <https://doi.org/10.1093/ooec/odac001>.

Disability, Employment and Wages: Evidence from Indonesia. *International Journal of Manpower* 42 (5): 866–88 (2020). <https://doi.org/10.1108/IJM-01-2020-0022>.

Migration and Mental Health in Mexico: Domestic Migrants, Return U.S. Migrants, and Non-Migrants. (with Katherine M. Donato and Erin Hamilton). *Front. Psychiatry* 10:970. (2020) <https://doi.org/10.3389/fpsyt.2019.00970>.

HONORS AND AWARDS

Dean's Fellow, Columbia University, 2020-2026

NSF Graduate Research Fellow, 2022-2026

Dissertation Fellowship, Columbia University Department of Economics, 2025-2026

Reubens Travel and Research Fellowship, Columbia University, 2024-2025

Anna J. Schwartz Fellowship for best prospectus defense in the Columbia University Department of Economics in the 2023-2024 academic year

Angell Fellowship, Columbia University, for 2023-2034 academic year

Runner up for Wueller Fellowship for best pre-dissertation proposal in the Columbia University Department of Economics in the 2023-2024 academic year

Vickrey Award for best third year paper in the Columbia University Department of Economics in the 2022-2023 academic year

Dean's Medal, Georgetown University, 2020

Phi Beta Kappa Honor Society

Alpha Sigma Nu National Honor Society

TEACHING EXPERIENCE

Columbia University, Department of Economics

Instructor of Record

Labor Economics. Evaluation 4.5/5. Summer 2024.

Teaching Assistantships

PhD Econometrics (with Professor Jushan Bai and Professor Simon Lee). Evaluation 4.8/5.
Spring 2024.

Political Economy (with Professor Alessandra Casella). Evaluation 4.8/5. Fall 2023.

Intermediate Microeconomics (with Professor Ingmar Nyman). Evaluation 4.8/5. Spring 2022.

Political Economy (with Professor Alessandra Casella). Evaluation 4.5/5. Fall 2021.

Awards

Wueller Award for Best TA in Undergraduate Core Courses for the 2021-2022 academic year

Wueller Award for Best TA in PhD Courses for the 2023-2024 academic year

Georgetown University, Department of Economics

Teaching Assistantships

Macroeconomics (with Professor Carol Rogers), Georgetown University Department of Economics. Evaluation 4.1/5. Spring 2017.

RESEARCH AND WORK EXPERIENCE

Research Assistant/Short-Term Consultant (working with Victor Sulla and Erwin Tiongson)
World Bank Social Protection Global Practice Group, Europe and Central Asia, March 2023 – October 2023.

Research Assistant/Short-Term Consultant

World Bank World Development Report 2023, February 2022 – May 2023.

Research Assistant (working with Alessandra Casella)

Columbia University Department of Economics, May 2021 – August 2021.

Research Assistant/Short-Term Temporary (working with Victor Sulla and Erwin Tiongson)

World Bank Poverty & Equity Global Practice Group, Africa, August 2019 – August 2020.

Research Assistant/Short-Term Temporary (working with Xubei Luo and Erwin Tiongson)

World Bank Poverty & Equity Global Practice Group, East Asia, April 2019 – June 2020.

Research Assistant (working with Katharine Donato)

Institute for the Study of International Migration at Georgetown University, June 2019 – October 2020.

Carroll Round Research Scholar (working with Shareen Joshi and S. Anukriti)

Georgetown University, June 2019 – December 2019.

Independent Consultant (working with Tomoko Harigaya)

Precision Development (formerly Precision Agriculture for Development), Boston, MA,
Research Intern June 2018 – August 2018, Independent Consultant August 2018 – May 2019.

MSFS Research Scholar (working with Erwin Tiongson)

Master of Science in Foreign Service Program at Georgetown University, September 2017 – June 2019.

Research Assistant (working with Erik Voeten)

Georgetown University, June 2018 – August 2018.

Constituent Affairs Intern

Office of State Senator Jason Lewis, May 2017 - August 2017.

OTHER EXPERIENCE

President, Georgetown University Astronomical Society

December 2016 – May 2020.

PRESENTATIONS

- | | |
|------|--|
| 2025 | American University |
| 2024 | APPAM Fall Research Conference, Harvard University Graduate Workshop in Economic History |
| 2022 | 5 th IZA Labor Statistics Workshop: The Measurement of Incomes, Living Costs and Standards of Living, Korean Development Institute (KDI) School Impact Evaluation Conference, Better than Cash Alliance |
| 2019 | Carroll Round Conference, Georgetown University Undergraduate Research Colloquium |

Other presentations

The Legacy of the Georgetown College Observatory (D.C.) (with Grace Maglieri and Patrick Seitzer), American Astronomical Society, AAS Meeting #231 (2018)

<http://adsabs.harvard.edu/abs/2018AAS...23112602C>.

Lead in the Water: Disclosing Lead Service Lines (with Cathy Bailey, Tom Neltner, and Doug Farquhar) presented for the National Conference of State Legislatures (2017).

<http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-disclosing-lead-service-lines.aspx>.

CONTRIBUTIONS TO POLICY AND INSTITUTIONAL REPORTS

Reimbursable Advisory Services Agreement on Modernizing the Disability Assessment System in Romania. World Bank (2023),

<https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099030424143695132/p1711571a8038c0a41beb91eb8b2540e762>

World Development Report 2023: Migrants, Refugees, and Societies. World Bank (2023),

<https://www.worldbank.org/en/publication/wdr2023>

Inequality in Southern Africa: An Assessment of the Southern African Customs Union.

Victor Sulla, Precious Zikhali, Pablo Facundo Cuevas (2022). World Bank.

<http://documents.worldbank.org/curated/en/099125303072236903/P1649270c02a1f06b0a3ae02e57eadd7a82>

Towards Safer and More Productive Migration for South Asia. Ahmed, S., Bossavie, L. L. Y., Bartl, E. M., Caron, L. K., Khadka, U., Khan, M., ... & Wang, H (2020). World Bank.

<https://openknowledge.worldbank.org/handle/10986/33559>.

The Kingdom of Eswatini Toward Equal Opportunity: Accelerating Inclusion and Poverty Reduction. Systematic Country Diagnostic. World Bank (2020).

<https://openknowledge.worldbank.org/handle/10986/34970>

The Middle Class in the Philippines: An Exploration of the Conditions for Upward Mobility. World Bank (2020).

<https://openknowledge.worldbank.org/handle/10986/34099>

Namibia Systematic Country Diagnostic. World Bank (2020).

<https://openknowledge.worldbank.org/handle/10986/35434>

Eswatini - Economic Recovery Development Policy Loan Project (2020). Washington, D.C.: World Bank Group.

<http://documents.worldbank.org/curated/en/366911606100452341/Eswatini-Economic-Recovery-Development-Policy-Loan-Project>

COMMENTARY & BLOG POSTS

Digital banking is the in-thing – but it excludes many users in Tanzania and Senegal. *The Conversation*. April 17, 2022. <https://theconversation.com/digital-banking-is-the-in-thing-but-it-excludes-many-users-in-tanzania-and-senegal-180092>

Disability and labour markets in Indonesia. *Devpolicy*. November 3, 2021.

<https://devpolicy.org/disability-and-labour-markets-in-indonesia-20211102/>

The Pandemic Drove Savings Rates Sky-High. They Still Haven't Fallen to Earth (with Erwin Tiongson). *Barron's*. June 23, 2021. <https://www.barrons.com/articles/the-pandemic-changed-how-we-save-spelling-trouble-for-the-recovery-51624476916>

The pandemic poverty penalty: how COVID-19 complicates our measure of household well-being (with Erwin Tiongson). *London School of Economics COVID-19 Blog*. June 15, 2021. <https://blogs.lse.ac.uk/covid19/2021/06/15/the-pandemic-poverty-penalty-how-covid-19-complicates-our-measure-of-household-well-being/>

China, India lead in Asia but new growth sources will shake up the global economy (with Erwin Tiongson). *South China Morning Post*. November 12, 2020. <https://www.scmp.com/comment/opinion/article/3109263/china-india-lead-asia-new-growth-sources-will-shake-global-economy>

Immigrants are still sending lots of money home despite the coronavirus job losses – for now (with Erwin Tiongson). *The Conversation*. October 21, 2020. <https://theconversation.com/immigrants-are-still-sending-lots-of-money-home-despite-the-coronavirus-job-losses-for-now-148387>

How Can Digital Finance Support Agriculture? Using Alternative Data Sources to Support Consumer Protection. *Responsible Finance Forum* (blog). September 30, 2019. <https://responsiblefinanceforum.org/can-digital-finance-support-agriculture-using-alternative-data-sources-support-consumer-protection/>

Fintechs and Big Data: Opportunities, Risks, and Approaches to Consumer Data Protection in Kenya and East Africa. *Responsible Finance Forum* (blog). February 26, 2019. <https://responsiblefinanceforum.org/fintechs-big-data-opportunities-risks-approaches-consumer-data-protection-data-protection-kenya-east-africa/>.

Leveraging Digital Presence for Consumer Relationships (with Isabelle Smith). *Responsible Finance Forum* (blog). January 31, 2019. <https://responsiblefinanceforum.org/leveraging-digital-presence-consumer-relationships/>.

OTHER PUBLICATIONS

The Heyden Observatory at Georgetown University. *Historical Astronomy Division (HAD) News: The Newsletter of the Historical Astronomy Division of the American Astronomical Society*. October 2018.

SERVICE & MENTORING

Mentor to high school student in economics. June 2025 – present.

Mentor, Graduate Applications International Network (GAIN). May 2024 – present.

Mentor to Master's students, Women in Economics Initiative. November 2022 – present.

Mentor to PhD first-years, Association of Graduate Economics Students at Columbia. September 2021 – present.

Diversity representative, Columbia University Economics Department Diversity Initiative. September 2022 – May 2025.

Program organizer, Columbia University Economics Department Diversity Initiative's Undergraduate Mentoring Program. September 2021 – May 2023.

Mentor to undergraduates, Columbia University Economics Department Diversity Initiative's Undergraduate Mentoring Program. January 2021 – May 2024.

Mentor to undergraduates, Women in Science at Columbia Mentoring Program. September 2020 – May 2023.

REFERENCES

Alessandra Casella

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Professor of Political Science
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Simon Lee

Professor of Economics
Columbia University
sl3841@columbia.edu

Ebonya Washington

Laurans A. and Arlene Mendelson
Professor of Economics and
Professor of International and
Public Affairs
Columbia University
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Jason Chen

Last updated: December 18, 2025

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Columbia University
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Email: jjc2300@columbia.edu
Website: jasonjiaxingchen.github.io

Placement Chairs:

Mark Dean (md3405@columbia.edu)
Martín Uribe (mu2166@columbia.edu)

Placement Administrators:

Jonathan Mendoza (jam2546@columbia.edu)
Amy Devine (aed2152@columbia.edu)

Education

Columbia University

Ph.D. in Economics

M.Phil. in Economics

M.A. in Economics

2020 – Present
(expected May 2026)

2024

2022

University of California, Berkeley

B.A. in Computer Science and Economics (*High Distinction*)

2016 – 2020

Fields of Specialization

Health Economics, Labor Economics, Industrial Organization, Business Economics

Job Market Paper

Quality and Location Choice of Immigrant Doctors

Doctor shortages are a widespread and growing concern in the healthcare systems of many developed countries, including in the United States. Allowing for immigration of working doctors is a commonly proposed policy to expand doctor supply. In the US, however, licensing requirements that impede immigrants with medical training from working as doctors are commonly justified on the grounds of ensuring their quality. I study the quality of domestically trained and immigrant doctors in the US, focusing on a setting with strong identification and measurement – Medicare patients and hospital emergency rooms. I find quality *premiums* associated with care provided by immigrant doctors, both within a given hospital and across the entire distribution of emergency room doctors. Notably, I do not find such quality premiums for US citizen medical students educated abroad. I also find immigrant doctors are significantly more likely to work in designated health professional shortage areas. Estimates from a structural matching model of the doctor labor market reveal that neither mobility preferences nor vertical sorting can fully explain this geographic pattern, suggesting immigrants have a greater preference towards working in these areas. These results show the important role of immigrant doctors in providing quality healthcare in the areas of greatest need in the US.

Work in Progress

1. Medical School Entry and the Doctor Labor Market

2. Congestion and Demand for College Majors

Research and Work Experience

Research assistant for Prof. Cristóbal Otero, Columbia Business School	2024
Research assistant for Prof. Chris Moser, Columbia Business School	2022
Research assistant for Prof. Jonas Hjort, Columbia Business School	2021
Research assistant for Profs. Patrick Kline and Chris Walters, UC Berkeley	2019-2020
Research assistant for Prof. Stefano Dellavigna, UC Berkeley	2018-2020
Part-time consultant at Lexington Partners LP	2025

Teaching

TA for Intro to Economics	Summer 2024
TA for Econometrics I (MA)	Fall 2023
TA for Microeconomic Analysis II (MA)	Spring 2023

Awards and Fellowships

Dissertation Fellowship, Columbia University	2025
Dean's Fellowship, Columbia University	2020-2024
Phi Beta Kappa	2020

Skills and Bio

Programming: Python, R, Julia, SQL, Java
Software: Stata, LaTeX, PySpark
Languages: English (native), Chinese
Citizenship: United States
Gender: Male

References

Gautam Gowrisankaran Professor of Economics Columbia University gg2840@columbia.edu	Jonah Rockoff Paul Garrett Professor of Public Policy and Business Responsibility Columbia Business School jr2331@gsb.columbia.edu	Cristóbal Otero Assistant Professor of Eco- nomics Columbia Business School c.otero@columbia.edu
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Andrea Ciccione

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Jonathan Mendoza (jam2546@columbia.edu)
Amy Devine-Keum (aed2152@columbia.edu)

Education

Columbia University Ph.D. Candidate in Economics (BusEc track)	2020 - Present
Bocconi University M.S. in Economics and Social Sciences, <i>110/110 Cum Laude</i>	2020
Bocconi University B.S. in International Economics and Finance, <i>110/110 Cum Laude</i>	2017

Research Interests

Political Economy, Media Economics, Organizational Economics, Behavioral Economics

Job Market Paper

An Image is Worth 40.38 Words: Political Partisanship in Videos

Abstract: Political news is increasingly consumed through short, visually rich videos. Yet most measures of media bias rely solely on text. I develop a multimodal framework that quantifies partisan signals in both images and text and apply it to news videos. I identify a central mechanism governing the relative importance of the two modalities: the effective time available to process information, or attention. Even under full attention, excluding images understates overall slant. The dominant modality flips with exposure length: in brief viewing windows, images convey partisan information more efficiently; with sustained exposure, textual signals accumulate and dominate. Visual and textual content also operate in distinct domains: image-based partisanship loads disproportionately on emotions, whereas text reflects deliberative content that builds with time. A survey experiment using real immigration clips corroborates these attention–modality interactions in the perception and effects of partisan content. Republican-leaning images rapidly increase perceived Republican slant, heighten negative emotions, and—under short exposure—reduce pro-immigrant donations (especially among Republicans). Partisan text shifts immigration policy attitudes along party lines, but only with sustained exposure (especially among Democrats). Together, the results recast partisan media in a video-first, low-attention environment: visuals act fast through affect and behavior; text persuades slowly through attitudes and beliefs.

Working Papers

Fixed Effects Topic Model

with [Dan Biderman](#), [David Blei](#), [Wei Cai](#), [Amir Feder](#) and [Andrea Prat](#)

Abstract: Social scientists wish to perform topic modeling on documents that are created by different authors in different contexts. However, the same broad topic may be expressed in different ways depending on the environment where the author operates. For example, one may wish to use employee reviews to identify broad corporate culture topics, but the language of reviews is influenced by industry-specific jargon. Existing

methods attempt to control for these biases ex post, such as with traditional fixed effect regressions. But these methods cannot fully separate global themes from category-specific language within them. In this paper, we introduce the Fixed Effects Topic Model (FETM), a novel approach to disentangling broad topics from contextual influences by incorporating fixed effects directly into the generative process of language. We use the FETM to identify themes in a large corpus of Glassdoor job reviews. We show that it outperforms conventional topic models, both in interpretability and predictive accuracy.

Today's Bonus, Tomorrow's Budget: Equity-Efficiency Tradeoff in Performance-Based Transfers

with *Luigi Caloi*

Abstract: To improve service delivery, central governments often tie intergovernmental transfers to local policy performance. While such performance-based transfers can raise efficiency by incentivizing municipalities, they may also create equity losses by disproportionately rewarding high-capacity governments with larger transfers. We study this equity efficiency trade-off using transfers to Brazilian municipalities. When two states tied transfers to relative educational performance, student test scores rose substantially: moving from the 25th to the 75th percentile of per capita conditional transfers increased scores by 0.13 standard deviations. However, the reform also widened funding disparities, as municipalities with higher pre-existing capacity received larger transfers. In contrast, contemporaneous reforms to passive transfers had negligible effects on student outcomes. A simple model of optimal transfers interprets these findings, suggesting that performance-based transfers deliver large efficiency gains, limited equity costs, and should constitute a sizable share of the optimal transfer mix. We find minimal evidence of multitasking distortions or score manipulation. Instead, we document increased education-related inputs and suggestive evidence of reduced corruption.

Awards, Fellowships, and Grants

CPE Graduate Student Grant Opportunity, <i>Columbia Center for Political Economy</i>	2024
CELSS Seed Grant, <i>Columbia Experimental Laboratory in the Social Sciences</i>	2024
J-PAL's Jobs and Opportunity Initiative Brazil (with Luigi Caloi), <i>J-PAL</i>	2023
Wueller Fellowship for Best Teaching Fellow (Runner-up), <i>Columbia University</i>	2022
Dean's Fellowship, <i>Columbia University</i>	2020 – Present

Other Research Experience

Research Assistant to Prof. Andrea Prat and Andrey Simonov, <i>Columbia Business School</i>	2021–2024
Research Assistant to Prof. Cailin Slattery, <i>Columbia Business School</i>	2021–2022
Research Assistant to Prof. Thomas Le Barbanchon, Bocconi University	2019–2020
Research Assistant to Prof. Marco Ottaviani, Bocconi University	2019–2020

Teaching Experience

Main Instructor in Math Camp (Economics MA)	2022 – 2024
Guest Lecturer in Political Economy (PhD), Prof. Andrea Prat	2022 – 2024
TA in Industrial Organization (MA), Prof. Ildikó Magyari	2024
TA in Game Theory and Business (MBA), Prof. Andrea Prat	2022 – 2024
TA in Corporate Finance (UG), Prof. Tri Vi Dang	2023
TA in Math Methods for Economists (MA), Prof. Isaac Bjorke	2022

Bio

Citizenship: Italian
Gender: Male

References

Andrea Prat

Professor of Economics & Business
Columbia University
andrea.prat@columbia.edu

Suresh Naidu

Professor of Economics &
International and Public Affairs
Columbia University
sn2430@columbia.edu

Mark Dean

Professor of Economics
Columbia University
mark.dean@columbia.edu

HYOSEOK (STEVE) KIM

hk2562@columbia.edu ◇ 347-978-6904 ◇ Homepage

EDUCATION

Columbia University, Graduate School of Arts and Sciences

Ph.D., Economics (Military Leave of Absence: 01/2021 - 12/2022)

New York, NY

09/2017 - 2026 (Expected)

Columbia University, Graduate School of Arts and Sciences

M.A., Economics

New York, NY

09/2016 - 08/2017

Seoul National University, College of Social Sciences

M.A., Economics

Seoul, South Korea

09/2014 - 08/2016

Columbia University, Columbia College

B.A., Chemistry, Economics-Mathematics

New York, NY

09/2009 - 05/2013

FIELDS OF SPECIALIZATION

Primary Fields: Econometrics, Macroeconomics

Secondary Field: Asset pricing (Coursework: Asset Pricing 1, Asset Pricing 2, Empirical Asset Pricing)

REFERENCES

Serena Ng

Edwin W. Rickert Professor

Department of Economics

Columbia University

serena.ng@columbia.edu

Jushan Bai

Professor

Department of Economics

Columbia University

jb3064@columbia.edu

Martin Uribe

Robert A. Mundell Professor

Department of Economics

Columbia University

mu2166@columbia.edu

JOB MARKET PAPER

Title: Macroeconomic Forecasting with Outlier-Robust VAR

Abstract: The vector autoregressive (VAR) model is one of the key models for macroeconomic forecasting and structural analysis. However, the COVID-19 pandemic has posed significant challenges to estimating and forecasting with VAR models in the post-pandemic era, highlighting the need for outlier-robust models. This study proposes an outlier-robust VAR model that decomposes the reduced-form error into a regular component and an outlier component. The VAR coefficients are estimated by imposing an L_1 penalty on the outlier component, yielding an outlier-robust estimator that is equivalent to the multivariate Huber M-estimator. The asymptotic normality of the proposed estimator is then established. To assess its practical relevance in improving the accuracy of forecasts for the post-COVID period, we estimate a five-variable VAR model using monthly data from March 1959 to June 2024 obtained from the FRED-MD database. The results show that the out-of-sample forecasts for the post-COVID period obtained from the outlier-robust VAR are generally more accurate than those obtained from the standard homoskedastic VAR and the outlier-augmented stochastic-volatility Bayesian VAR proposed by Carriero, Clark, Marcellino, and Mertens (2024).

Title: Outlier-Robust Low-Frequency Trend in Time Series

Abstract: Many interesting questions in macroeconomics concern the analysis of trends or long-term variations in key macroeconomic variables. Traditional approaches to trend extraction include the Beveridge–Nelson decomposition (Beveridge and Nelson, 1981), the HP filter (Hodrick and Prescott, 1997), and the band-pass filter (Baxter and King, 1999). A more recent contribution to this literature is the concept of the low-frequency trend, proposed by Muller and Watson (2008, 2017). The low-frequency trend is defined as the fitted value from a linear regression of a time series on a small set of low-frequency cosine functions. Although the ordinary least squares estimator is typically used to construct such trends, the COVID-19 pandemic underscores the need for methods more robust to extreme observations. In this regard, we introduce an outlier-robust low-frequency trend estimator based on penalized least squares, which applies an L_1 -penalty to the regression error term. This estimator is shown to coincide with Huber M-estimator of the regression coefficients. Building on Wu(2007), we derive sufficient conditions for the asymptotic normality of this robust estimator. For empirical application, we decompose the levels and growth rates of U.S. real GDP per capita and real consumption per capita into outlier-robust low-frequency trends, cycles, and outliers. In addition, we interpret the identified outliers in light of major historical episodes such as the Great Depression, World Wars, and pandemics.

Title: Bayesian Forecasting with High-Dimensional Macroeconomic Data

Abstract: This study investigates the forecasting performance of several Bayesian models in the context of high-dimensional macroeconomic data. Two linear models, the Bayesian Lasso model and the spike-and-slab model, and one tree-based model, the Bayesian Additive Regression Trees (BAT), are considered. The Bayesian Lasso imposes a shrinkage prior, resulting in a dense representation, while the spike-and-slab model imposes a mixture prior that explicitly admits a sparse representation. Using 120 monthly macroeconomic and financial variables from the FRED-MD database, these models are evaluated based on their ability to forecast the one-month-ahead growth rate of U.S. industrial production. The result shows that all models tend to select variables commonly included in traditional vector autoregressive (VAR) models. Among these models, the BART delivers the best in-sample fit, due to its flexible non-parametric structure. However, in out-of-sample forecasting, linear models, especially the spike-and-slab model, outperform the BART. Furthermore, assuming t-distributed errors improves forecast accuracy, highlighting the importance of accounting for fat tails in macroeconomic data. These findings offer empirical guidance for selecting forecasting tools in the presence of model uncertainty and non-Gaussian disturbances.

Title: Estimation of mixed-frequency factor model via principal component analysis and maximum likelihood

Abstract: This study presents a procedure for the maximum likelihood (ML) estimation of mixed-frequency factor models and conducts a simulation exercise that compares the ML estimators and the principal component analysis (PCA) estimators. The simulation exercise considers a variety of mixed-frequency models that allow for the following: (i) serially correlated common and group-specific factors, (ii) cross-sectionally correlated group-specific factors, (iii) cross-sectionally correlated idiosyncratic errors, and (iv) heteroskedastic idiosyncratic errors. The performance of the two estimators is compared by computing canonical correlations between the true factors and their estimates, as well as between the true factor loadings and their estimates. The simulation exercise demonstrates that the ML estimators for factors are more efficient than the PCA estimators for factors in terms of average canonical correlations. Similarly, the ML estimators for factor loadings are more efficient than the PCA estimators in the majority of cases. As an empirical application, we apply both methods to a panel dataset that consists of the quarterly growth rates of U.S. industrial production (IP) sectors and the annual growth rates of non-IP sectors.

RESEARCH AND WORK EXPERIENCE

Amazon

Economist Intern

New York, NY

June 2025 - August 2025

- Worked as an economist intern in the Amazon SCOT-AIM (Supply Chain Optimization Technologies – Automated Inventory Management) team.
- Developed an unbalanced Bayesian Dynamic Factor Model to identify latent drivers of Amazon's growth from 25+ key business metrics spanning topline performance, inventory management, and supply chain operations, producing both unconditional and conditional forecasts for policy evaluation.

Columbia University, Department of Economics

New York, NY

Research Assistant for Prof. Jushan Bai

2018 - 2019

- Conducted Monte Carlo simulations for mixed-frequency factor models.

Research Assistant for Prof. Stepanie Schmitt-Grohe and Prof. Martin Uribe

June 2019 - August 2019

- Assisted in conducting simulations and preparing manuscripts.

Seoul National University, Department of Economics

Seoul, South Korea

Research Assistant for Prof. Myung Hwan Seo

2015 - 2016

- Conducted simulations for Lasso regression and bootstrapped confidence intervals.
- Performed structural break tests on GDP growth data across multiple countries.

Research Assistant for Prof. Simon Lee

2014-2016

- Conducted research on the partial identification of changes in the social preferences of North Korean refugees.

Columbia University, Department of Economics

New York, NY

Research Assistant for Prof. Macartan Humphreys and Prof. Guy Grossman

2012 - 2013

- Assisted in monitoring communication between Members of Congress and voters in Uganda.
- Analyzed petition records to evaluate whether legislators fulfilled their campaign commitments.

TEACHING EXPERIENCE**Columbia University, Department of Economics**

New York, NY

Teaching assistant

2018 -

- Money and Banking (undergraduate), Spring 2025
- Introduction to Econometrics (undergraduate), Fall 2023
- Intermediate Macroeconomics (undergraduate), Spring 2023
- Corporate Finance (undergraduate), Fall 2020
- International Macroeconomics (undergraduate), Spring 2020
- Game Theory (undergraduate), Fall 2019
- Financial Economics (undergraduate), Fall 2018 and Spring 2019

Seoul National University, Department of Economics

Seoul, South Korea

Teaching assistant

2014 - 2015

- Advanced Econometrics (graduate), Fall 2015
- Introduction to Modern Economy (undergraduate), Fall 2014

HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

- Dissertation Fellowship, Columbia University 2024
- Program For Economic Research (PER) Summer Research Fellowship, Columbia University 2020, 2023
- Woytinski Fellowship, Columbia University 2020
Awarded to one student in the Economics department interested in the field of Statistics
- Dean's Fellowship, Columbia University 2017 - 2018
- Brain Korea 21 Plus Scholarship (Full scholarship), Seoul National University 2014 - 2016
- Undergraduate Scholarship (Full scholarship), Kwanjeong Educational Foundation 2009 - 2013

Misc.

- Programming skills: MATLAB, R, Stata, SQL, and Python
- Nationality: South Korea

Tushar Kundu

PHD CANDIDATE | COLUMBIA UNIVERSITY, DEPARTMENT OF ECONOMICS

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Last updated: November 1, 2025

REFERENCES

Eric Verhoogen Professor Department of Economics and School of International and Public Affairs Columbia University ev2124@columbia.edu	Cristian Pop-Eleches Professor School of International and Public Affairs Columbia University cp2124@columbia.edu	Peter Bergman Associate Professor of Eco- nomics University of Texas at Austin peterbergman@utexas.edu	Alex Eble Associate Professor of Eco- nomics and Education Teachers College, Columbia University eble@tc.columbia.edu
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Placement Chairs: Mark Dean (md3405@columbia.edu), Martín Uribe (mu2166@columbia.edu)

Placement Administrators: Jonathan Mendoza (jam2546@columbia.edu), Amy Devine (aed2152@columbia.edu)

EDUCATION

Columbia University, New York, NY PhD in Economics (expected May 2026)	August 2019 - Present
Swarthmore College, Swarthmore, PA Bachelor of Arts, Honors in Economics and Mathematics (Emphasis on Statistics)	August 2013 - June 2017

FIELDS OF INTEREST

Development, Labor, Education

TEACHING EXPERIENCE

Teaching Assistant, Columbia University, New York, NY

- Introduction to Econometrics (Undergraduate) Fall 2020, Fall 2021
- Intermediate Microeconomics (Undergraduate) Spring 2022, Fall 2023, Spring 2025
- Public Economics (Undergraduate/Graduate) Fall 2022, Spring 2023

Instructor, Columbia University, New York, NY

- Public Economics (Undergraduate/Graduate) Summer 2023

RESEARCH IN PROGRESS

What Skills Do Families Want? Informing Teachers About Parent Priorities in Skill Development

(Job Market Paper)

When a student is weak in a skill, a key question is why: is it because the skill is hard to learn (costs) or because it has low value to the family (benefits)? Parents have insight into which skills hold value for their child, but large class sizes and informal communication limit teachers' access to this information. In this paper, I provide teachers with structured parent information through a field experiment. I survey 3,404 parents across five private schools in India to measure parents' perceptions of their children's skill levels and preferences for improvement across academic and socioemotional domains. Parents vary in their preferences over which skills to improve, but on average prefer improving their children's weaker skills. I develop a structural model of skill development showing that this pattern indicates learning costs, rather than family values, primarily drive observed specialization. I elicit teachers' beliefs about parent preferences and find little alignment with actual parent views, even at the classroom level. I randomize teacher access to parent survey data via a web portal. Treatment shifts student specialization toward parent-prioritized skills, with larger effects where baseline teacher beliefs were most inaccurate. Structural estimation corroborates these patterns and enables policy counterfactuals quantifying welfare gains from better cost-benefit alignment. The results demonstrate that structured parent feedback enables teachers to target instruction toward what families value most.

What do People Want?

with Daniel Benjamin, Kristen Cooper, Ori Heffetz, and Miles Kimball

Philosophical perspectives on human desires and values vary; economic theory-driven measurement techniques can provide relevant empirical evidence. We elicited over half a million stated preference choices over 126 dimensions or "aspects" of well-being from a sample of 896 online respondents. We also elicited, via self-reported well-being (SWB) questions, respondents' current levels of the aspects. From the stated preference data, we estimate for each aspect its relative marginal utility per point on our 0-100 response scale. We validate these estimates by comparing them to alternative methods for estimating preferences, and we offer a range of estimates between those that take self-reports at face value and those that (over-)correct for potential social-desirability reporting bias. Our findings suggest that our respondents want, first and foremost, three basic things: family, money, and health (not necessarily in this order). While commonly studied concepts such as happiness, life satisfaction, where life ranks on a ladder, and meaning, are all important, respondents place the highest marginal utilities on aspects related to family well-being and health, and financial freedom and security. We document substantial heterogeneity in preferences across respondents within (but not between) demographic groups, with current SWB levels accounting for a significant portion of the variation.

Explainable AI and Human Decision Making: Preferences, Beliefs, and Biases

with Peter Bergman and Kadeem Noray

Increasingly, AI is being used as a gatekeeper to key areas that affect economic mobility. AI is screening applicants for jobs, loans, healthcare and housing. Generative AI has accelerated this trend; its pre-trained models can readily be deployed across a variety of contexts. However, there are concerns that these models discriminate against protected groups. We construct a model of applicant selection that distinguishes between different forms of discrimination – taste-based discrimination, statistical discrimination, and biased beliefs – at the employer or recruiter level. We collect data that allow us to record resume review and hiring outcomes for applicant profiles and overcome the selection issue of observing hiring outcomes only for interviewed applicants. We compare AI decision making to the distribution of human decision makers and use the model to simulate policies such as blinding resume characteristics ("ban the box") and to build non-discriminatory screening algorithms.

Closing the Last Mile: Norms and Expectations in Women's Job Uptake

with Udit Karna and Akanksha Vardani

We study the "last-mile" constraint to female labor force participation (FLFP) among graduates of the Calcutta Foundation's (CF) vocational programs in Kolkata, India. Low FLFP is a particular puzzle for India, as it remains low despite rising educational rates for women – a stark contrast to other countries where rising female education has been accompanied by a commensurate increase in FLFP. Our focus is on a select sample of women who do not face well-documented barriers to work, as we survey CF graduates who have completed vocational training, report high willingness and family permission to work, and yet still remain out of the labor force. Our aim is to understand why, focusing on two possible levers: (i) second-order beliefs about community support for women's work, and (ii) expectations about the costs and benefits of work. We ask: can repeated, public community-engagement events increase job search and employment for women by (i) correcting women's beliefs about community support for women's work and/or (ii) correcting misaligned expectations about wages/ job conditions? We propose distinct activities during these events that help disentangle mechanisms, and reveal which lever is more dominant.

Preferences and Educational Choices of the Youth (Funded by EDUCA Flagship, Research Council of Finland)

with Daniel Carvajal, Ellen Sahlström, Matti Sarvimäki, Mikko Silliman

Well-being in School and Academic Achievement (Funded by EDUCA Flagship, Research Council of Finland)

with Daniel Carvajal, Ellen Sahlström, Matti Sarvimäki, Mikko Silliman

TeachAide - Improving Teacher Agency and Student Outcomes through Hypercontextualized Generative AI Chatbots (Pilot and Scoping Ongoing)

with Palaash Bhargava, Chandraditya Raj, and Tarang Tripathi

PROFESSIONAL SERVICE

Refereeing

- *Quarterly Journal of Economics*

SELECTED CONFERENCES AND SEMINARS

- Advances with Field Experiments 2024, 2025
- ASSA Annual Meeting 2025

AWARDS AND FELLOWSHIPS

- Dissertation Fellowship, Columbia University 2024-2025
- Wueller Award for Best T.A. for Undergraduate Electives (Runner Up) 2022-2023
- Dean’s Fellowship, Columbia University 2019-2020

RESEARCH GRANTS

- Columbia PER Field & Experimental Research Award (\$10,000) 2024 - Present
- Columbia PER Summer Research Program Award (\$4000) 2022, 2023, 2024, 2025
- Columbia CDEP Student Research Grant (\$2500) 2023, 2024, 2025
- Weiss Fund (\$2500) 2023

AFFILIATIONS

- Fellow, Columbia Center for Development Economics and Policy (CDEP) 2025 - Present

PROFESSIONAL EXPERIENCES

- Clean Energy Research Assistant, Planet Reimagined October 2024 - Present
- Research Assistant for Daniel Benjamin, USC and NBER July 2017 - July 2019
- Global Attitudes Summer Intern, Pew Research Center June 2016 - Aug 2016
- Associate Business Analyst, American International Group (AIG) June 2015 - Aug 2015
- Research Assistant for Steve Wang, Swarthmore Mathematics Department June 2014 - June 2017

SKILLS & INTERESTS

- **Technical:** Stan, R, Python, Latex, Qualtrics
- **Languages:** Fluent in English, Proficient in Spanish and Bengali

TIANHAO LIU

tl3014@columbia.edu | [Personal Website](#)

Last updated: November 13, 2025

EDUCATION

Department of Economics, Columbia University

PhD in Economics

New York, US

Sept 2020-present

- Fields of interest: Microeconomic Theory, Information Economics, Data and Privacy
- Dissertation Committee: Navin Kartik (advisor), Yeon-Koo Che, Elliot Lipnowski, Jacopo Perego

Jinhe Center for Economic Research, Xi'an Jiaotong University

Bachelor in Mathematical Economics and Finance

Xi'an, China

Sept 2017 - Jun 2020

Honors Youth Program, Xi'an Jiaotong University

Honors Youth Program

Xi'an, China

Sept 2014 - Jun 2017

Faculty of Business and Economics, The University of Hong Kong

Exchange Program

Hong Kong, China

Jan 2019 - May 2019

PUBLICATIONS

Beyond Unbounded Beliefs: How Preferences and Information Interplay in Social Learning, with Navin Kartik, SangMok Lee, and Daniel Rappoport, [Econometrica](#), July 2024

WORKING PAPERS

Worst-Case Privacy (Job Market Paper)

(Revised November 2025)

Revealed Information, with Laura Doval, Ran Eilat, and Yangfan Zhou

(Revised July 2025)

Misleading via Misspecification: Nonuniformity of Learning Robustness

(Revised June 2025)

Competitive Markets for Personal Data, with Simone Galperti and Jacopo Perego

Extended abstract accepted in Proceedings of ACM EC, 2024 (Revised April 2024)

WORK IN PROGRESS

Dynamic Contract Design under Falsification, with Yangfan Zhou [[slides](#)]

Correlation Ambiguity and Information Overload [[slides](#)]

AWARDS & FELLOWSHIPS

- | | |
|--|------|
| • Dissertation Fellowship, Columbia University | 2025 |
| • Woodruff Fellowship, Columbia University | 2024 |
| • PER Summer Research Fellowship, Columbia University | 2024 |
| • Vickrey Award for Best Third-Year Paper - Runner-Up, Columbia University | 2023 |

- Sanders Fellowship, Columbia University 2023
- Harriss Award for Best Second-Year Paper, Columbia University 2023
- Microeconomic Theory Initiative (MTI) Summer Funding, Columbia University 2022
- PER Summer Research Fellowship, Columbia University 2021
- Dean's Fellowship, Columbia University 2020-present

TEACHING EXPERIENCE

- Teaching Assistant, GR6211 Microeconomic Analysis I (Ph.D.), Columbia University, Fall 2022 — Instructors: Mark Dean and Pierre Chiappori
- Teaching Assistant, GU4260 Market Design (Undergraduate), Columbia University, Fall 2021 — Instructor: Guillaume Haeringer

RESEARCH EXPERIENCE

- Research Assistant to Prof. Michael Woodford Fall 2023, Spring 2024
- Research Assistant to Prof. Jacopo Perego Summer 2023
- Research Assistant to Prof. Navin Kartik Spring 2023
- Research Assistant to Profs. Navin Kartik and Elliot Lipnowski Spring 2022

PRESENTATIONS

- 2025 IO Theory Conference, MIT 2025
- ACM Conference on Economics and Computation (EC'24), Yale University 2024
- Asian School in Economic Theory, Keio University 2023

REFEREEING

- Referee for *American Economic Journal: Microeconomics*

MISCELLANEOUS

Interdisciplinarity Contest in Modeling (MCM/ICM) | Team Leader *International*

- Outstanding Winner & Rachel Carson Award & COMAP Award (World Top 4) *May 2017 - Apr 2018*

Skills: C++ (Baruch Certificate with Distinction), MATLAB, R, Python, VBA

Languages: Chinese (native), English (fluent)

REFERENCES

Navin Kartik
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 Yale University
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Yeon-Koo Che
 Department of Economics
 Columbia University
yc2271@columbia.edu

Elliot Lipnowski
 Department of Economics
 Yale University
elliott.lipnowski@yale.edu

Jacopo Perego
 Columbia Business School
 Columbia University
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KATE MUSEN

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PLACEMENT INFORMATION

Placement Chairs:

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REFERENCES

Sandra Black
Professor of Economics
University of Texas at Austin
✉ sblack@austin.utexas.edu

Janet Currie
Professor of Economics
Yale University
✉ janet.currie@yale.edu

Ebonya Washington
Professor of Economics
& International and Public Affairs
Columbia University
✉ ebonya.washington@columbia.edu

EDUCATION

Columbia University 2020 – 2026 (expected)
Doctor of Philosophy, Economics, in progress
Fields: Labor Economics, Health Economics, Public Economics
Committee: Sandra Black, Janet Currie, Ebonya Washington

Columbia University 2023
Master of Philosophy (en route), Economics

Columbia University 2022
Master of Arts (en route), Economics

Swarthmore College 2014 – 2018
Bachelor of Arts in Economics, Highest Honors, Minors in Psychology and Mathematics
GPA: 3.97/4.00

OTHER EDUCATIONAL EXPERIENCES

Princeton University Center for Health and Wellbeing 2024 – 2025
Visiting PhD Student

IRP Training Series On Poverty and Economic Mobility Research 2023 – 2024
Participant

Berkeley/Sloan Summer School in Environmental and Energy Economics August 2021
Attendee

University of Edinburgh Spring 2017
Visiting Undergraduate Student in the School of Mathematics

AFFILIATIONS

California Child Welfare Indicators Project February 2023 – Present

RESEARCH GRANTS

Transition-Age Youth Research & Evaluation Hub, University of California, Berkeley, \$8,065 2025
Program for Economic Research, Columbia University (with Donato Onorato), \$5,000 2024
Transition-Age Youth Research & Evaluation Hub, University of California, Berkeley, \$7,780 2023

HONORS AND AWARDS

National Science Foundation Graduate Research Fellowship	2020 – 2025
Caswell Johnson Fellowship, Columbia University	May 2024
Reubens Travel and Research Award, Columbia University	January 2024
Wueller Pre-Dissertation Award, Runner-up, Columbia University	January 2024
Wueller Teaching Award, Runner-up, Columbia University	September 2023
Harriss Prize for Best Second Year Paper, Runner-up, Columbia University	January 2023
Dean's Fellow, Columbia University	2020 – 2021
Adams Prize in Economics, Swarthmore College	June 2018
— “awarded annually for the best paper applying quantitative methods to an economic issue or problem”	
Phi Beta Kappa	May 2018
Sigma Xi: The Scientific Research Honor Society	March 2017
National Merit Scholar	May 2014

RESEARCH AND WORK EXPERIENCE

Research Assistant to Prof. Janet Currie <i>Princeton University</i>	November 2021 – Present
Pre-Doctoral Fellow to Profs. Raj Chetty, John Friedman, & Nathan Hendren <i>Opportunity Insights, Harvard University</i>	July 2018 – July 2020
Research Assistant to Prof. Syon Bhanot <i>Behavioral Economics Lab, Swarthmore College</i>	January 2016 – May 2018
Joel Dean Fellow in Economics <i>Department of Economics, Swarthmore College</i>	Summer 2017
Research Assistant to Prof. Jay Bhattacharya <i>Center for Primary Care & Outcomes Research, Stanford University</i>	Summer 2016
Data Science Intern <i>Information Sciences Institute, University of Southern California</i>	Summer 2015
Research Assistant to Prof. Jay Bhattacharya <i>Center for Primary Care & Outcomes Research, Stanford University</i>	Summer 2014

TEACHING EXPERIENCE

Teaching Fellow for Principles of Economics <i>Department of Economics, Columbia University</i>	Spring 2023
Teaching Fellow for Economics of Race <i>Department of Economics, Columbia University</i>	Fall 2022
Teaching Assistant for Intermediate Microeconomics <i>Department of Economics, Swarthmore College</i>	Fall 2016

“Fostering a Gentler Flight from the Nest: Effects of Foster Care Reform on Labor Market Outcomes” (Job Market Paper) [\[link\]](#)

Abstract: In the United States, about 6 percent of children—and nearly 12 percent of Black children—experience a foster care placement before age 18. Youth who spend time in foster care, and particularly those who age out of the system, attain less education and are less likely to be employed in adulthood than peers from similar socioeconomic backgrounds. In 2012, California introduced extended foster care, allowing eligible youth to remain in care until age 21 instead of exiting at 18. Using a difference-in-differences design comparing affected and unaffected cohorts, I find that each additional year of extended care increases college enrollment by 6 percent and formal employment at ages 24–26 by 4 percent. These effects are concentrated among the most vulnerable youth, including those with more reports of maltreatment and those without relatives to provide care. Non-Hispanic white men are disproportionately represented among these high-vulnerability groups and experience correspondingly larger gains. Conservative estimates indicate that each dollar spent on extended foster care generates at least three dollars in benefits, suggesting that well-designed interventions can also yield meaningful returns in late adolescence—a stage of life where government investments are often thought to be less effective.

“A Hard Pill to Swallow: Spillovers of the Opioid Epidemic on Educational Progress” [\[link\]](#)

Reject and Resubmit at the Journal of Public Economics

Abstract: Despite a substantial increase in the number of children living in households and exposed to neighbors with opioid addiction in the past two decades, the impacts of this trend on children are poorly understood. This paper provides novel estimates of the causal effects of exposure to the opioid epidemic on educational progress for California students. I develop a new time-varying instrument for prescription opioids derived from Purdue Pharma’s evolving marketing strategy, which targeted areas with high rates of different diseases over time. Moving from the 25th to the 75th percentile of instrumented per capita opioids, standardized test scores fall by 0.65–1.57% of the mean. High school exit exam pass rates fall by a greater magnitude. I find no evidence of overall changes in dropout rates, but ninth- and tenth-grade dropout rates increase. Estimates from IV regressions are much larger in magnitude than those using OLS. I find a significant adverse impact of community opioid use on the academic performance of the marginal affected child, highlighting previously overlooked intergenerational consequences of the opioid crisis.

“Doctor Decision Making and Patient Outcomes” (with Janet Currie and W. Bentley MacLeod) [\[link\]](#)

Accepted at the Journal of Economic Literature

Abstract: Doctors often treat similar patients differently, affecting health and spending. We review the recent literature on physician decision making through the lens of a model that incorporates doctors’ diagnostic and procedural skills, beliefs, and incentives as well as differences in patient pools. The quality of decision making is affected by training, experience, peer effects, financial incentives, and time constraints. Interventions to improve decision making include providing information, guidelines, and technologies like electronic medical records and algorithms. Economists have made progress in understanding doctor decision making, but our ability to apply that knowledge to improve health care is still limited.

“Adding Salt to the Womb: The Benefits of Salt Iodization from Infancy to Adulthood” (with Donato Onorato) [\[link\]](#)

Abstract: We estimate the effects of the 1924 introduction of iodized salt in the U.S. by exploiting pre-1924 geographic variation in iodine deficiency. Iodized salt reduced infant mortality by 1.1 deaths per 1,000 births (1.6%) for counties at the 75th percentile of iodine deficiency relative to the 25th percentile. These effects are concentrated in urban counties—where iodized salt was disproportionately available—explaining 1/3 of the decline in the urban-rural infant mortality gap in the 1920s. We show that the long-term effects on labor market outcomes are consistently large among urban-born individuals, reconciling conflicting results in the literature.

“Information, Spillovers, or Hassle Costs? Effects of Medicaid Prior Authorization on Preschool Antipsychotic Prescribing”

(with Janet Currie) [\[link\]](#)

Abstract: We examine information versus hassle costs in the context of Medicaid prior authorization requirements for preschool antipsychotic prescribing. Such prescribing increased in the 1990s, despite substantial side effects and the absence of FDA approval. State Medicaid programs began to require prior authorization for antipsychotic prescribing to young children after 2005. We evaluate these policies using hand-collected policy data and national prescription data for 2006-2019. We find that prior authorization reduced prescriptions to children under six by 22-30% in the two years after implementation. There were no effects on privately insured or older children, suggesting little role for information spillovers.

“Minimum Wages and Racial Infant Health Inequality: Evidence from the Fair Labor Standards Act of 1966” [\[link\]](#)

Abstract: The Fair Labor Standards Act (FLSA) of 1966 increased the federal minimum wage to \$1 in several previously excluded industries starting in 1967. These changes disproportionately affected Black workers, substantially narrowing the racial wage gap over the period of just a few years. In this paper, I use a triple differences approach to evaluate the effect of narrowing the racial wage gap on the infant mortality gap. I estimate the model at the county level, exploiting variation in industry employment shares measured in the early 1960s. Intuitively, counties that pre-reform had higher shares of employment in industries affected by the FLSA of 1966 were more treated by the reform and experienced greater narrowing of the racial wage gap. I find that an increase in covered employment by one percentage point reduced the infant mortality gap by about 0.16 deaths per 1,000 births (or 1.2% of the mean gap).

WORK IN PROGRESS

“Minimum Wages, Early Childhood Environment, and Long-Term Outcomes”

“Psychiatric Care Access and Adolescent Trajectories Across Health and Social Services” (with Angie Boy and Abigail Cormier)

CONFERENCE PRESENTATIONS AND INVITED TALKS

Allied Social Science Associations Annual Meeting, Oslo Economics Workshop on Marginalized Children and Long-term Outcomes, Atlanta Workshop on Public Policy and Child Well-being, Janet Currie’s Festschrift, WEAI Graduate Student Workshop 2025

Transition Age Youth Special Interest Group Annual Meeting, CESifo / ifo Junior Workshop on the Economics of Education, Transition-Age Youth Research & Evaluation Hub Convening, 25th IZA Summer School in Labor Economics (poster), West Virginia Opiate Workshop, APPAM Fall Research Conference, Southern Economic Association Annual Meeting 2024

Annual Conference of the American Society of Health Economists, Southern Economic Association Annual Meeting, Children’s Data Network 2023

Behavioral and Experimental Economists of the Mid-Atlantic Conference 2019

OTHER WRITING

“Recreational Marijuana Legalization and Tobacco Use: Early Evidence from Colorado and Washington,” Senior Honors Paper at Swarthmore College, 2018.

SERVICE

Mentor, Economics Department Undergraduate Mentoring Program, Columbia University 2022 – 2024
Rapporteur, Current Research in Applied Microeconomics Seminar, Columbia University 2023 – 2024

Referee: *Journal of Human Resources*

SKILLS

Computer Languages and Software

Stata, Python, Matlab, R, L^AT_EX, Bash, oTree, Django
Qualtrics, HTML, CSS, JavaScript, Xpress-Mosel, SPSS

Languages

English (native speaker)
Spanish (full professional working proficiency)

MISCELLANEOUS

Citizenship: United States

Data Access: U.S. Census Bureau Special Sworn Status

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Education

Columbia University

Ph.D. candidate in Economics, *Graduate School of Arts and Sciences* 2019-2025
M.A in Statistics, *Graduate Schools of Arts and Sciences* 2018

New York University

B.A. in Psychology *College of Arts and Sciences* 2014

Research Fields

Primary Fields: Behavioral Finance, Development Economics, Climate Economics

References

Mark Dean	Jack Willis
Professor of Economics	Assistant Professor of Economics
Columbia University	Columbia University
Michael C. Best	Joseph E. Stiglitz
Associate Professor of Economics	University Professor
Columbia University	Columbia University

Working Papers

Information Frictions and the Market for Climate Adaptation: Evidence from Index Insurance in Colombia (*Job Market Paper*)

Presented at the [Stanford Financial Education Symposium](#), [Warwick PhD Student Conference](#), the Next Gen Science Sessions at the 8th Lindau Meeting in Economic Sciences, A Quantum Leap for Nature Finance Action Circle, WEFIDEV webinar, upcoming at APPAM and World Bank-KDI Development Impact Conference.

Depositor Preferences and Climate Finance

with [Edward Shore](#) and [Jing Lu](#)
Draft forthcoming

Climate Maladaptation and the Commons: Groundwater Management in India

with Nikhil Basavappa
Earlier version presented at [NetMob conference](#), [World Bank \(2024\)](#), upcoming at APPAM
Draft forthcoming

Works in Progress

The Salesperson as an Educator: Incentives, Persuasion, and Financial Literacy
with [Brian Jonghwan Lee](#)

Public Information Provision: Subsidy and Bureaucratic Efficiency

with [Fernando Ochoa](#), [Daniela Paz Cruzat](#) and Marcela Zapata

Insurance and Crop Choice: Experimental Evidence from Zambia

with [Lorenzo Casaburi](#) and [Jack Willis](#)

Teaching and Research Experience

Graduate Research Fellow, Columbia Business School

Joseph E. Stiglitz 2020-Present

Teaching Fellow, Columbia University

Intermediate Macroeconomics, with Prof. Sala-i-Martin Fall 2019, Fall 2022

Money and Banking with Prof. Miles C. Leahy Spring 2021

Economics of Race in the United States with Prof. O'Flaherty Fall 2020

Introduction to Econometrics with Prof. Gashaw Spring 2020

Research Assistant, Columbia University

Mark Dean 2022-2023

Policy Working Papers

[Groundwater management strategies, T20 South Africa 2025](#)

with [Nikhil Basavappa](#), Nitin Bassi, Anik Bhaduri, Soorya K K, Ekansha Khanduja, and Yashita Singh

[Can Chile Escape its Inequality Trap? 2024](#)

with Ignacia Lecaros, Daniela Paz Cruzat, Pablo Tillán, and Michael Walton

[Inequality in Chile, Perceptions and Patterns, 2023](#)

with Ignacia Lecaros, Daniela Paz Cruzat, Pablo Tillán, and Michael Walton

Affiliations & Other Activities

[Cognition and Decision Lab](#), [CELSS Lab](#), [Center for Development and Economic Policy Research Fellow](#), [IMAGO Global Grassroots](#) (*Research Fellow 2022-2023*).

Referee Service: *Journal of Behavioral and Experimental Economics*

Student Research Breakfast Seminar Organizer 2021-2024

Cognition and Decision Lab Social Secretary 2023-2024

Undergraduate Economics Mentorship 2022-2023

NBER Behavioral Public Economics Boot Camp 2022

Sloan-NOMIS Cognitive Foundations of Economic Behavior 2022

Alliance Graduate Summer School 2022

Grants and Awards

Program for Economic Research, Summer DRA (~ \$4,000 USD each) 2023, 2024, 2025

CELSS student pilot lab grant (~ \$800 USD) 2025

Hewlett Foundation, Data Grant (~ \$2,000 USD) 2024

Program for Economic Research, Data (~ \$5,000 USD) 2024

Center for Development and Economic Policy, Student Grant (~ \$1,500 USD each) 2024, 2025

Program for Economic Research, Field Experiment (~ \$15,000 USD) 2023

Wueller Teaching Award, Core Courses, Runner-Up 2023

Weiss Fund, Exploratory Research Grant (~ \$1,500 USD) 2022

Dean's Fellow 2019-2025

Skills

Programming and Editing: R, Shiny, Python, Tensorflow, oTree, Statistical Machine Learning, Stata, Matlab, L^AT_EX

Languages: English (native), Spanish (native), French (basic), Danish (basic)

Ziyang Shen

Last updated: *October 24, 2025*
[[Check Updates](#)]

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Columbia University
New York, NY 10027

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Email: zs2472@columbia.edu
Website: <http://sites.google.com/view/ziyangshen>

Placement Chairs:

Mark Dean: md3405@columbia.edu
Martín Uribe: mu2166@columbia.edu

Placement Administrators:

Jonathan Mendoza: jam2546@columbia.edu
Amy Devine: aed2152@columbia.edu

Education

Columbia University, Ph.D. candidate in Economics
Ph.D. in Economics
M.Phil. in Economics
M.A. in Economics

Aug 2020 – Present
May 2026 (expected)
May 2023
May 2022

Shanghai University of International Business and Economics
B.A. in Economics

Sept 2016 – Jun 2020
Jun 2020

Fields of Specialization

Primary Field: Applied Microeconomic Theory, Game Theory, Market Design, Mechanism Design
Secondary Field: Behavioral & Experimental Economics

Job Market Paper

[Sequential Solicitation of Costly Information](#)

Abstract:

A principal with private information asks agents to acquire costly information and make action recommendations. An agent is then hired to implement his recommendation on the principal's behalf. The optimal mechanism for incentivizing information acquisition and truthful reporting involves approaching agents sequentially without revealing any history and hiring as soon as possible.

An agent's incentive problem features a trade-off between a *majority effect*—reporting truthfully and joining the large group whose recommendations align with the principal's posterior with high probability but, conditional on such alignment, facing a lower chance of being hired from that large group—and a *minority effect*—misreporting and joining the small group whose recommendations align with the principal's posterior with low probability but, conditional on alignment, facing a higher chance of being hired. The minority effect arises only when an agent is pivotal, which occurs with very low probability, so the majority effect typically prevails. However, if the principal is overconfident about the precision of her private information, the minority effect is amplified, and agents gain an additional incentive to second-guess the principal's belief—both channels distort incentives for truthful reporting.

Work in Progress

1. Trade without Money Transfer: The Role of Asymmetric Information.
2. Strategic Innovation and Quitting.
3. Sequential Solicitation and the Order of Visiting.
4. The Top Trading Cycles Mechanism and Allocative Efficiency of Inherited Indivisible Objects, with Jinpeng Ma.

Publications

1. When is the Deferred Acceptance mechanism responsive to priority-based affirmative action? (2022), with Zhenhua Jiao and Guoqiang Tian, *Social Choice and Welfare* 58, 257–282.
2. School choice with priority-based affirmative action: A responsive solution (2021), with Zhenhua Jiao, *Journal of Mathematical Economics* 92, 1–9. (Lead article)
3. On responsiveness of top trading cycles mechanism to priority-based affirmative action (2020), with Zhenhua Jiao, *Economics Letters* 186, 108545.
4. Affirmative action under common school priorities: The top trading cycles mechanism case (2019), with Yajing Chen, Zhenhua Jiao, and Guoqiang Tian, *Operations Research Letters* 47(3), 190–196.

Teaching Assistantships

Market Design (Undergrad & Master); Instructor: Yeon-Koo Che	Fall 2024
Market Design (Undergrad & Master); Instructor: Murat Yilmaz	Spring 2024
Introductions to Econometrics (Undergrad); Instructor: Jushan Bai	Fall 2023
Game Theory (Undergrad & Master); Instructor: Qingmin Liu	Spring 2023, Fall 2021
Micro Analysis I (Master); Instructor: Bernard Salanie	Fall 2022
Micro Analysis II (Master); Instructor: Guillaume G. Haeringer	Spring 2022

Honors, Awards, and Fellowships

Dissertation Fellowship, Columbia University	Spring 2025 – Present
Dean’s Fellowship, Columbia University	Fall 2020 – Present
PER Summer DRA Award, Columbia University	Summer 2024, Summer 2025
Bronze Medal in the Chinese Mathematical Olympiad (CMO)	Dec 2015
First Prize in the Chinese National High School Mathematics Competition	Oct 2015

Other Academic Activities

Research Assistant for Prof. Qingmin Liu (*Summer 2021, Fall 2023*)
Referee: *Games and Economic Behavior, Journal of Mathematical Economics, Economic Modelling*
Conference Presentations: Conference on Mechanism and Institution Design (Budapest), Nanjing International Conference on Theory of Games and Economic Behavior

Miscellaneous

Date of Birth: September 8, 1997
Citizenship: China
Languages: Mandarin Chinese (native), English (proficient)
Programming: L^AT_EX, MATLAB, Python, R, Stata

References

Qingmin Liu
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Associate Professor of Economics
Department of Economics
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Yifan Shi

Updated October 27, 2025



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Placement Info **Chair:** Professor Mark Dean (mark.dean@columbia.edu)
Professor Martín Uribe (mu2166@columbia.edu)
Admin: Amy Devine (aed2152@columbia.edu)
Jonathan Mendoza (jam2546@columbia.edu)

Fields **Primary:** Corporate Finance, Public Economics
Secondary: Labor Economics, Entrepreneurial Finance

Education **Columbia University** Expected 2026
Ph.D. in Economics
Columbia University in the City of New York 2020
B.A. in Mathematics-Statistics, Financial Economics, *Summa Cum Laude*

References Professor Wojciech Kopczuk (wojciech.kopczuk@columbia.edu)
Professor Glenn Hubbard (rgh1@gsb.columbia.edu)
Professor Matthieu Gomez (mg3901@columbia.edu)
Professor Michael Ewens (michael.ewens@columbia.edu)

Job Market Paper

Shared Directors, Shared Decisions

[Link to draft](#)

Abstract: Shared directors are a prevalent economic linkage between firms, yet causal evidence on their influence across firms remains scarce. I show that shared directors transmit corporate actions across firms, using plausibly exogenous shocks to directorships. Firms are more likely to mirror their interlocked peers' dividend initiations, large dividend increases, new equity issuances, and forward stock splits. This mirroring behavior cannot be explained by alternative inter-firm linkages such as customer-supplier ties, common institutional ownership, shared hedge fund activism, or within-industry competition. Long-tenured, less-busy outsider directors drive this effect, suggesting that experience and reliance on external information may contribute to the observed diffusion. A long-short portfolio that buys firms whose interlocked peers undertake a given action and shorts matched controls earns abnormal returns, consistent with investor underreaction to directors' connections. These results highlight board interlocks as an important channel for both corporate decision-making and return predictability.

Impacts of Loss-Sharing Provisions on Corporate Investment

[Available on SSRN](#)

Abstract: Losses constitute a crucial aspect of businesses, highlighting the importance of government loss-sharing provisions. Using variation in state-level net operating loss carryover policies in the United States, I find that carryback provisions increased many forms of corporate investment, financed by both internal cash and external debt, while carryforward provisions had a null effect on firms. On the extensive margin, census data reveals that carryback provisions spurred new business creation. Instead of the risk-sharing channel, I show that financially unconstrained firms drove the investment responses through an efficiency mechanism, where lower tax liability allowed firms to expand without increasing business risk.

The Real Effects of Capital Gains Taxation on Entrepreneurs and Investors

[Link to Draft](#)

Abstract: This paper studies how startups and investors respond to capital gains taxation, using a quasi-experiment of Qualified Small Business Stock (QSBS) capital gains tax exemption in 2010. Startups within treated industries received 8.6% to 13.5% more funding, which allowed them to scale up their business, and their revenue increased by 21%. However, treated startups' innovation and profits did not increase. On the extensive margin, I find increases in new startup entry into the treated industries, but one in four of those startups eventually fail. These evidence suggests that investors were deploying capital in lower-quality firms. Additionally, I find weak evidence that investors were timing the realization of capital gains through IPO, buyouts and mergers/acquisitions of their portfolio startups.

Subjective Evaluations and Stratification in Graduate Education

with Jessica Bai, Matthew Esche, and W. Bentley MacLeod

[NBER Working Paper 30677](#)

Abstract: We introduce a model of the admissions process based upon standard agency theory and explore its implications with economics PhD admissions data from 2013-2019. We show that a subjective score that aggregates subjective ratings and recommendation letter features plays a more important role in determining admissions than an objective score based upon graduate record exam (GRE) scores. Subjective evaluations by references who write multiple letters are not only more influential than those of references who write one letter, but they are also more informative. Since multiple-letter references are also more highly ranked economists, this implies that there is a constraint on the supply of high-quality references. Moreover, we find that both the subjective and objective scores are correlated with job placement at a top economics department after the completion of the PhD.

[Work In Progress](#)

Does Foreigners' Stock Ownership affect US Firms' Payout Decisions? (with Wojciech Kopczuk)

Barriers to Entrepreneurship: Evidence from Gross Receipts Taxation

How Deep is Your Moat? Competitive Effects of Venture Capital Financing (with Jessica Bai)

Honors, Awards and Fellowships	Doctoral Fellowship (Columbia Econ Dept.)	2020-Present
	Eisenhower-Roberts Fellowship Nominee (representing Columbia)	2024
	Publication Accelerator Grant, Institute for Humane Studies	2024
	Program for Economic Research Summer Fellowship	2023
	Searle Fellowship	2022
	Program for Economic Research Summer Fellowship	2021
	Phi Beta Kappa, Junior Elect (Top 30 in Undergraduate Class)	2020
	Economics Departmental Honor, Columbia College	2020
	Second Place, Columbia Economics Competition	2018
	Sanford S. Parker Prize for Summer Research	2018
	Edward Frank Kraft Award and Scholarship	2016
Research Experience	RA for Michael Urias (Columbia Business School)	2024-2025
	RA for Wojciech Kopczuk (Columbia Econ Dept.)	2022-2024
	RA for Michael Ewens (Columbia Business School)	2023
	RA for W. Bentley MacLeod (Columbia Econ Dept.)	2021-2022
Teaching Experience	TA, Intro to Quant Investing Processes by Michael Urias	Spring 2025
	TA, Behavioral Finance by Harrison Hong	Spring 2025
	TA, Public Economics by Timothy Goodspeed	Spring 2024
	Instructor, Corporate Finance (Econ S4280)	Summer 2023
	TA, Public Economics by Wojciech Kopczuk	Fall 2023
	TA, Behavioral Finance by Harrison Hong	Spring 2022
Other Academic Experience	NBER Entrepreneurship Research Boot Camp	Summer 2024
Industry Experience	Point72 Asset Management, Proprietary Research, New York, NY	Summer 2025
	Cornerstone Research, Summer Associate, New York, NY	Summer 2024
	Nomura Securities, Summer Analyst, New York, NY	Summer 2019
Skills	Programming	
	Python, R, SQL, Stata, LaTeX	
	Languages	
	Mandarin Chinese (native), English (native), German (advanced, Goethe-C1 Zertifikat)	

SHUHUA SI

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Placement Administrators: Amy Devine (aed2152@columbia.edu), Jonathan Mendoza (jam2546@columbia.edu)

Education

Columbia University Ph.D. in Economics	2020 – 2026 (expected) New York, NY, USA
Columbia University M.A. in Economics	2018 – 2019 New York, NY, USA
Peking University B.A. in Journalism & B.A. in Economics	2014 – 2018 Beijing, China

References

Alessandra Casella Professor of Economics & Political Science Department of Economics Columbia University +1 (212) 854-2459 ac186@columbia.edu	Michael Woodford John Bates Clark Professor of Political Economy Department of Economics Columbia University +1 (212) 854-1094 mw2230@columbia.edu	Mark Dean Professor of Economics Department of Economics Columbia University +1 (212) 854-3669 mark.dean@columbia.edu	Haoge Chang Assistant Professor of Economics Department of Economics Columbia University hc3516@columbia.edu
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Fields of Specialization

Behavioral and Experimental Economics, Microeconomic Theory

Job Market Paper

Is Complexity the Problem? Testing Random Choice with Heterogeneity

Abstract: Economic choices are often stochastic: the same person may make a different choice when facing the same alternatives repeatedly. Standard models assume that the degree of randomness reflects the size of utility differences, but choice inconsistencies could also reflect difficulty comparing alternatives. Recent studies estimate such *comparison difficulty* (or “complexity”) by fitting choice models on data collected from different subjects under a representative agent assumption. However, pooling such data while assuming homogeneous preference could violate standard models of random choice simply because of heterogeneity across subjects, even in the absence of variation in comparison difficulty. This paper develops a revealed preference framework, *collective rationalizability*, that tests for variation in comparison difficulty while incorporating heterogeneity. The framework characterizes whether violations of standard models can be explained by comparison difficulty alone, heterogeneity alone, or require both. I then provide a statistical test for collective rationalizability and apply the method to two existing experiments. In both cases, heterogeneity alone explains observed failures of stochastic transitivity well, demonstrating that comparison difficulty can be not only theoretically but also empirically confused with heterogeneity in aggregate data.

Working Paper

Restricting Strategy Sets in Complex Games, with Alessandra Casella and Olivier Compte

Abstract: How do individuals with possibly limited cognitive capacity approach games with large and high-dimensional strategy spaces? We define an algorithm for constructing representative subsets (or “grids”) of strategies, each spanning the strategy space approximately uniformly, and we propose to model individuals as if each restricted their strategy set to a given (randomly chosen) grid. We apply the method to a Blotto-type

resource allocation game which we also bring to the lab. We find a strong mismatch between the experimental data and the (unique) Nash equilibrium. Predictions over sufficiently coarse grids approach the behavioral regularities and dispersion present in the data.

Pitfall of Precision in Noisy Signaling, with Yangfan Zhou

Abstract: A principal decides whether to approve an agent based on a noisy signal (e.g., test scores) generated by the agent. High-quality agents can produce high signals on average at lower cost, but the realizations are subject to noise that depends on the screening technology's precision. We uncover a paradoxical "pitfall of precision": when precision is already high, further improvements reduce screening accuracy and lower the principal's welfare. This occurs because greater precision incentivizes strategic signaling from more low-quality agents, outweighing the direct benefit from improved precision. We also examine how commitment power helps mitigate this pitfall.

Research and Work Experience

Research Scientist Intern, Reality Labs Research, Meta	Jun - Aug 2025
Lab Manager, Columbia Experimental Lab for Social Sciences	Jan 2024 - Jan 2025
Research Assistant for Alessandra Casella, Columbia University	2023
Research Assistant for Réka Juhász, Columbia University	2019 - 2020

Teaching Experience

Teaching Assistant, Columbia University	
Global Economy (Undergraduate, Waseem Noor)	2023
Political Economy (Undergraduate, Alessandra Casella)	2022
<i>Wueller Awards for Best Teaching Fellows (Runners up)</i>	
Intermediate Microeconomics (Undergraduate, Wouter Vergote)	2021-2022

Fellowships, Awards, and Grants

CELSS Grant for Graduate Student Projects, Columbia University	2025
Research Fellow Grant, Program for Economic Research, Columbia University	2019, 2023, 2025
Dissertation Fellowship, Columbia University	2025
David and Vivian Hsiung Fellowship, Columbia University	2024
Wueller Awards for Best Teaching Fellows, Runners up, Columbia University	2023
Dean's Fellowship, Columbia University	2020 - 2025
Outstanding Undergraduate Thesis Award, Peking University	2018
Robin Li Scholarship, Peking University	2017
Kwang-Hua Scholarship, Peking University	2016
Highest Award in the Challenge Cup of Undergraduate Research, Peking University	2016
National Scholarship, Peking University	2015

Conferences and Workshops

Summer Workshop in Theory-Driven Experiments, Caltech	2023, 2025
Machine Learning in Economics Summer Institute, University of Chicago (Booth)	2024
Theory, Organisation and Markets Seminar, Paris School of Economics	2024
Student Workshop in Experimental Economics Techniques, Columbia University	2023

Others

Programming: Python, PyTorch, MATLAB

Languages: Chinese (Native), English

Yangfan Zhou

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Placement Administrators:	Amy Devine	aed2152@columbia.edu
	Jonathan Mendoza	jam2546@columbia.edu

Contact Information	Department of Economics	yz3905@columbia.edu
	Columbia University	sites.google.com/view/yangfanzhou

Education	Ph.D., Economics, Columbia University	2020–2026 (expected)
	Committee: Navin Kartik (co-advisor), Laura Doval (co-advisor), Qingmin Liu	
	M.A., Economics, Columbia University	2020–2022
	B.A., Economics, Peking University	2016–2020

Fields	Microeconomic Theory, Information Economics
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Job Market Paper	Knowledge-Based Mechanisms with Yutong Zhang <i>Summary:</i> We study robust mechanism design when the designer faces Bayesian uncertainty about some components of agents' private information and ambiguity about others. The designer adopts the maxmin criterion to evaluate mechanisms. We derive sufficient conditions under which a knowledge-based mechanism—one that conditions only on the Bayesian component but not on the ambiguous one—is robustly optimal. Our results unify existing work across disparate economic environments and yield new applications. For instance, we show separate allocation is robustly optimal in multidimensional allocation when the agent's trade-offs across dimensions are ambiguous, and similarly for generalized majority voting in social choice with belief ambiguity.
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Publications	Positive and Negative Sorting in Team Contests with Qiang Fu, Zenan Wu, and Hanyao Zhang <i>Journal of Industrial Economics</i> , 2024. [from my undergraduate work]
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Working Papers	Collective Sampling: An Ex Ante Perspective [link] <i>Summary:</i> I study collective dynamic information acquisition by many players. I develop a methodology based on an ex ante perspective, where players' stopping strategies are represented by posterior belief distributions subject to majorization constraints. Equilibria are then characterized via concavification. I apply the model to committee search and competition in persuasion.
	Revealed Information with Laura Doval, Ran Eilat, and Tianhao Liu [link] <i>Summary:</i> Given the frequency with which a decision maker takes actions—unconditional on payoff-relevant states—can his choices be rationalized as if he first learns something about the state before acting? We provide a support-function characterization of action distributions that are consistent with information given the decision maker's prior.
	Pitfall of Precision in Noisy Signaling with Shuhua Si [link] <i>Summary:</i> We study how the precision of screening technologies shapes agent signaling behavior and principal welfare. We uncover a paradoxical "pitfall of precision": when precision is already high, further improvements make screening less accurate and reduce principal welfare. It arises because higher precision encourages strategic signaling by marginally low-quality agents.
	Peer Information in Mechanism Design without Transfers with Yutong Zhang [link] <i>Summary:</i> Agents may hold peer information that can be exploited by a designer for cross-verification when transfers are unavailable. With binary outcomes, we show that while some

peer information is always beneficial, more is not necessarily better: the designer unambiguously benefits if and only if agents learn more about others' preference intensities but not their rankings.

Work in Progress

Dynamic Contract Design under Falsification with Tianhao Liu [\[slides\]](#)

Summary: We study a dynamic moral hazard problem where the agent can costly manipulate the monitoring outcomes. Surprisingly, manipulation can be beneficial for the principal: by inducing the agent to both work and manipulate, the principal can prolong the relationship and improve efficiency relative to the benchmark without manipulation.

Credible Contracts and Performance Evaluations

Summary: I study the credible design of contracts that include both evaluation systems and payment schemes. I introduce a novel credibility requirement for contracts, extending the notion in Akbarpour and Li (2020).

Fellowships & Awards

Dean's Fellowship, Columbia University	2020–2025
Sanders Fellowship, Columbia University	2023–2024
Wueller Award for Best Teaching Fellow for PhD Courses, Columbia University	2023
Vickrey Award for Best Third-Year Paper, runner-up, Columbia University	2023
Woytinsky Fellowship, Columbia University	2022–2023
Kathryn and Shelby Cullom Davis International Fellowship, Columbia University	2021–2022
May 4th Scholarship, Peking University	2019
Leo KoGuan Scholarship, Peking University	2018
Kwang-Hua Scholarship, Peking University	2017

Teaching Experience

Teaching Assistant, Columbia University	
Intermediate Microeconomics, for Prof. Caterina Musatti	Spring 2024
Advanced Microeconomics II (PhD), for Profs. Navin Kartik & Elliot Lipnowski	Spring 2023
Intermediate Microeconomics, for Prof. Prajit Dutta	Fall 2021
Teaching Assistant, Peking University	
Market Organization and Design, for Prof. Fanqi Shi	Spring 2020
Principles of Economics, for Prof. Zenan Wu	Fall 2019

Research Experience

Research Assistant, Columbia University	
For Prof. Laura Doval	Summer 2023, Fall 2023
For Prof. Navin Kartik	Summer 2021, Spring 2022, Fall 2022, Fall 2023
Research Assistant, Peking University	
For Prof. Zenan Wu	Fall 2018, Fall 2019

Conference Presentations

2024 North American Winter Meeting of the Econometric Society, 2025 World Congress of the Econometric Society

Refereeing

American Economic Review, AEJ: Microeconomics, AER: Insights

References

Professor Navin Kartik Department of Economics Yale University navin.kartik@yale.edu	Professor Laura Doval Columbia Business School Columbia University laura.doval@columbia.edu
Professor Qingmin Liu Department of Economics Columbia University ql2177@columbia.edu	