

# Omar Ahsan

9/29/22

Department of Economics  
Columbia University  
New York, NY 10027

(646) 957-3160  
oa2256@columbia.edu

Placement Chairs: Sandra Black, sblack@columbia.edu, Suresh Naidu, sn2430@columbia.edu  
Placement Assistant: Amy Devine, (212) 854-6881, aed2152@columbia.edu

## Education:

2023 (expected)	Ph.D. Economics	Columbia University
2020	MPhil Economics	Columbia University
2019	M.A. Economics	Columbia University
2015	B.S. Computer Science & Math	University of Maryland
2015	B.A. Economics	University of Maryland

## Honors and Awards:

2021-2022, Dissertation Fellowship, Department of Economics, Columbia University  
2017-2021, Dean's Fellowship, Department of Economics, Columbia University  
2015, Dudley and Louisa Dillard Award, UMD  
2014, John D. Gannon Scholarship, UMD  
2013, Fig Leaf Software Drucker/Gallerizzo Computer Science Scholarship, UMD

## Fields of Specialization:

*Primary Field:* Corporate Finance

*Secondary Field:* Labor Economics, Microeconomics

**Job Market Paper:** Resilience in U.S. Firms: Evidence from the Covid-19 Pandemic

**Abstract:** In this paper, I exploit the Covid-19 pandemic and associated government restrictions as a natural experiment in order to study the resilience of businesses in the United States. I use a border-county identification strategy with data on government restrictions, employment and open small businesses, in order to assess the resilience of small businesses in the United States. In my main results, I find negative impacts of stay-at-home orders on the number of open small merchants. In particular, shutdowns of businesses accelerated 8 weeks after imposition of a stay-at-home order, suggesting that many businesses were only resilient enough to handle adverse conditions for 8 weeks. On average, a county with a stay-at-home order experienced an additional 1.51 percentage points loss in the number of open small businesses, relative to January 2020, 8 weeks later compared to a neighboring county that did not have a stay-at-home order. Firms were quicker to resort to layoffs. On average a county with an active stay at home order in a month experienced an additional 1.28 percentage point loss in employment, relative to January

2020, the following month compared to a neighbor that did not have a stay-at-home order the previous month. I also find that stay-at-home orders caused significant reductions in movement in both directions between neighboring counties.

**Working Papers:** Career Concerns and Asset Diversification, Career Concerns in Major League Baseball Umpires

**Research and Work Experience:**

Technology Associate, Morgan Stanley (2017)

Technology Analyst, Goldman Sachs (2015 - 2017)

**Teaching Experience:**

Corporate Finance, TA (Fall 2022, Summer 2021, Spring 2020)

Intermediate Microeconomics, TA (Fall 2020)

Game Theory, TA (Fall 2019)

**Personal:**

Born on 05/12/1993

US Citizen

**References**

Sandra Black:

[sblack@columbia.edu](mailto:sblack@columbia.edu)

Xavier Giroud:

[xavier.giroud@gsb.columbia.edu](mailto:xavier.giroud@gsb.columbia.edu)

Glenn Hubbard:

[rgh1@gsb.columbia.edu](mailto:rgh1@gsb.columbia.edu)

# Amanda Awadey

Columbia University  
Department of Economics  
420 W 118th Street  
New York, NY - 10027

Email: [amanda.awadey@columbia.edu](mailto:amanda.awadey@columbia.edu)

Phone: +1 (917) 495 8016

## PLACEMENT CHAIRS

Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu)  
Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)

## PLACEMENT ASSISTANT

Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## EDUCATION

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Columbia University

Ph.D. in Economics

May 2023 (expected)

*Dissertation Title: Essays in Development Economics*

M.Phil. in Economics

2020

M.A. in Economics

2019

University of Ghana

B.A. in Economics and Mathematics (*Summa cum laude*)

2014

## SELECTED SCHOLARSHIPS, AWARDS, AND GRANTS

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Student Research Grant Program, CDEP	2022
Dissertation Fellowship, Columbia University	2022
Wueller Teaching Award, Columbia University	Fall 2019
Dean's Fellowship, Columbia University	2017 - Present
Best graduating student, B.A., University of Ghana	2014
Best graduating female student, B.A., University of Ghana	2014
Best Level 200 student in the Humanities, University of Ghana	2012
Best female student for Mathematical Science, University of Ghana	2012

## FIELDS

Development Economics - Education and Firm, Applied Microeconomics

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## JOB MARKET PAPER

### Double the Number: High School Crowding and Schooling Outcomes

Increased cohort size of labor supply entrants relative to labor demand generally results in adverse outcomes. Little is known, however, about the impact of an increased cohort size of

entrants relative to education supply despite the close link between these markets. This is primarily because significant year-on-year changes in relative cohort size in education markets are rare. This paper shows its impact on performance and the college market by examining two reforms in Ghana that resulted in a significant increase in the 2013 high school graduating class. Using data on all high school graduates and application data from a large public university, I combine a cohort analysis and a regression discontinuity design leveraging a compulsory schooling law to isolate causal effects. I find a notable fall in performance at the end of high school, and a 135% increase in cohort size results in a less than proportionate rise of 56% in total demand for college. Prospective applicants are less likely to apply immediately, and this persists over two years, suggesting forgoing college and not a postponement. Furthermore, applicants are less likely to apply to selective programs, pointing to an overall objective of maximizing admission chances. Colleges face a supply constraint and cannot absorb the increased demand, as indicated by at least a 20% fall in admission chances. Females and students with lower socioeconomic status and not worse off.

## WORK IN PROGRESS

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### **The Intended and Unintended Effects of an Additional Year in High School**

*Ongoing, Columbia University*

Existing evidence posits that an additional year of schooling increases human capital on average. However, the extra year of education is usually associated with an increased breadth of the curriculum. In this paper, I investigate the effects of an additional year which increased the duration without a change in the curriculum. Particularly, the impact on performance in the short term and for college-bound students, any persistent effects. In addition, in a setting where high school costs are borne by students and their families, increasing the duration of high school may have unintended impacts because of the increased financial burden. In this study, I explore potential unintended effects on high school graduation rates and heterogeneous results by socioeconomic status and gender.

### **Towards a Cash-lite Economy: Mobile Money and Retail Payments**

*Ongoing, Columbia University with Rowena Cornelius, Western University, Ontario*

Increased penetration of mobile phones, a large unbanked population, and the recent COVID-19 pandemic have advanced the rapid spread of mobile money usage in sub-Saharan Africa. Predominantly used for person-to-person transfers (P2P), mobile money is yet to gain significant traction as a mode of payment, particularly in retail. Empirically, evidence of the constraints and the factors that promote using mobile money as a payment tool is scant and was obtained before the COVID-19 pandemic. We are collecting data on these constraints and factors from micro and small firms in Ghana after the surge of digital transactions triggered by the COVID-19 pandemic. With this, we hope to design informed interventions to address the constraints of using mobile money for retail payments.

## RESEARCH AND WORK EXPERIENCE

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The World Bank, Short-Term Consultant	December 2019 – Present
Columbia University, Research Assistant for Michael Best	June – December 2019
KPMG Ghana, Audit Associate - Consumer and Manufacturing Industry	2014 – 2017

## TEACHING EXPERIENCE

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Columbia University

<i>Financial Economics:</i>	<i>Teaching Assistant for Professor Tamrat W. Gashaw</i>	<i>F2020</i>
	<i>Teaching Assistant for Professor Martina Jasova</i>	<i>S2020</i>
	<i>Teaching Assistant for Professor Harrison Hong</i>	<i>S2019</i>
<i>Principles of Economics:</i>	<i>Teaching Assistant for Professor Sunil Gulati</i>	<i>F2019</i>

## PROFESSIONAL DEVELOPMENT

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Affiliate: Association of Chartered Certified Accountants - ACCA	2016 - Present
L'Alliance Française (Intermediate level – Level 500)	2009– 2010

## SELECTED VOLUNTARY EXPERIENCE

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Diversity Committee, Columbia University	November 2020– May 2021
Organizing Committee, Young Economists Symposium	January – August 2019

## SKILLS AND CERTIFICATES

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- Computer and Software: R, Stata, Matlab, GitHub, LaTeX, Microsoft Office
- Languages: Fluent in English, Intermediate French (Diplome d'Etude de Langue Française A1, A2), basic Spanish

## ADVISORS

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**Cristian Pop-Eleches** School of International and Public Affairs, Columbia University  
[cp2124@columbia.edu](mailto:cp2124@columbia.edu)

**Miguel Urquiola** Department of Economics, Columbia University  
[miguel.urquiola@columbia.edu](mailto:miguel.urquiola@columbia.edu)

**Sandra Black** Department of Economics and School of International and Public Affairs, Columbia University  
[sblack@columbia.edu](mailto:sblack@columbia.edu)

# Anastasia Burya

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ab4533@columbia.edu

+1(347)2240530

## Education

**Columbia University,**

Department of Economics, Ph.D. candidate

GPA 3.8/4.0

**MSU (Lomonosov Moscow State University),**

Department of Economics, Bachelor of Economics (2013 - 2016)

GPA 4.9/5.0

**IUM (Independent University of Moscow),**

Studied Calculus and Calculus on Manifolds, 5 courses passed (2013-2014)

## Professional Experience

Ph.D. Intern at the International Monetary Fund (2021)

## Research Assistant Experience

Research Assistant for Professor Stiglitz (2018-2019)

Research Assistant for "Exchange Rate Disconnect in General Equilibrium"

Professor Itskhoki and Professor Mukhin, Princeton University (2016)

## Teaching Experience

Teaching Assistant for "Macroeconomic Analysis II" (Ph.D.)

Professor Hassan Afrouzi, Professor Martin Uribe, Columbia University (2021)

Teaching Assistant for "Intermediate Macroeconomics"

Professor Irasema Alonso, Columbia University (2020)

Teaching Assistant for "Intermediate Macroeconomics"

Professor Schmitt-Grohé, Columbia University (2020)

Teaching Assistant for "Intermediate Macroeconomics"

Professor Sala-i-Martin, Columbia University (2019)

## Research Experience

**"Variable Markups and Pass-through of Marginal Costs into Prices"** Ongoing

with S. Mishra, Columbia University

Variability of markups makes price response to marginal cost shock imperfect. This imperfect pass-through of marginal costs into prices creates an additional friction in price adjustment. This is one of the reasons behind some of the recent trends, such as flattening of the Phillips Curve. In this paper we study this imperfect pass-through empirically and derive theoretically asymmetries for positive versus negative marginal cost shock. First we develop a theoretical framework for a general oligopoly model and derive sufficient statistics for oligopolistic firm-level elasticities and superelasticities. We would then use those statistics empirically using ACNielsen Retail Scanner database and employing a novel Granular Instrumental Variable approach. We measure parameters that impact the variability of markups, such as demand elasticity, demand superelasticity and competitor price cross-elasticity. Finally we study pass-through of marginal costs into prices and point out the response asymmetry that causes firms to be more reactive to the marginal cost increases. This latter result may explain why in the aggregate data we might observe missing deflation and strong inflation.

### **"Monetary Policy under Labor Market Power" Ongoing**

with R. Mano, Y. Timmer, A. Weber, International Monetary Fund

Using the near universe of online vacancy postings in the U.S., we study the interaction between labor market power and monetary policy. We show empirically that labor market power amplifies the labor demand effects of monetary policy, while not disproportionately affecting wage growth. A search and matching model in which firms can attract workers by either offering higher wages or posting more vacancies can rationalize these findings. We also find that vacancy postings that do not require a college degree or technology skills are more responsive to monetary policy, especially when firms have labor market power. Our results help explain the "wageless" recovery after the 2008 financial crisis and the flattening of the wage Phillips curve, especially for the low-skilled, who saw stagnant wages but a robust decline in unemployment.

### **"Heterogeneous Unemployment Response to Monetary Policy Shocks" Ongoing**

with S. Mishra, Columbia University

First studies of monetary policy non-neutrality with identified shocks, such as Romer & Romer (2004), reported large and positive effect of monetary contraction on unemployment. Later studies, however, found that these large effects are a specific attribute of the time period. We relate those findings to differences in household portfolios. After a monetary contraction indebted individuals experience a negative wealth effect and are motivated to work and search for jobs more actively. Because of this effect, in times when consumers are highly indebted, unemployment does not rise significantly or even decrease after a monetary contraction. In this paper, we model this mechanism and provide empirical results supporting our conclusions.

### **"Monetary Policy Transmission through Fixed-Rate Mortgages" Ongoing**

with M. Davitaya, Columbia University

We examine monetary policy transmission through fixed-rate mortgages (FRMs) and document the novel source of refinance response heterogeneity - credit score. We find that borrowers with lower credit scores display staggered refinance response to the decrease in the mortgage rates even when their current rate significantly exceeds the one available at the market. A one standard deviation difference in the credit scores leads to 0.42% difference in the refinance probability. We then develop a theoretical model to capture this heterogeneity and translate it into the heterogeneous consumption response. The model predicts up to 0.49 pp of annual consumption response difference between the high and low credit score groups in the short run.

### **"Anchored or De-anchored? Inflation Compensation and Monetary Policy" Ongoing**

with M. Davitaya and S. Mishra, Columbia University

Market expectations of Central Bank preferences and its future policies, may have impact on their response to monetary policy today. In this paper we study this effect. The empirical strategy is two-fold. First, we measure market expectations about Central Bank reaction function to inflation by looking at changes of different interest rates around CPI information release dates and regress them on the surprise change in CPI. Second, we measure the difference in inflation expectation response depending on whether Central Bank proved to be more or less responsive to inflation. We find that if Central Bank proved to be more responsive to inflation during the previous CPI release, the current effect of monetary policy will be staggered.

## **Honors and Awards**

Wueller 4th year pre-dissertation award (2020)

Dean's Fellowship Columbia University (2017-present)

Primakov Scholarship (2016)

## **Skills**

R, python, Stata, MatLab, LaTeX

Languages: Russian (native), English (fluent), French (basic)

## **Conference Presentations**

Federal Reserve Board Summer Workshop on Money, Banking, Payments and Finance (2022)

## **Workshops and Summer Schools**

**Princeton** Initiative Camp, Macro Money and Finance (2019)

**LSE** Summer School, "Options, futures and other financial derivatives" (2015), Grade A+

**IfW** (Kiel Institute fur Weltwirtschaft), Advanced Studies Program (2016)

Professor Sannikov's course «Financial markets and macro-economy», Grade A+

**NES CDSI** workshop "Mechanism Design: New Products, New Markets, New Models"

Professor Ismalkov, (2015)

**MSU** special course (2016) "Introduction to Applied Statistics and Econometrics" (passed)

**MSU** special course (2015) "Introduction to Decision Theory" (passed)

**MSU** special course (2014) "Introduction to Modern Macroeconomics" (passed)

**UPM** (Universidad Politecnica de Madrid)

Advanced Statistics and Data Mining Summer School 2016 (4 courses)



# Kyle Coombs

October, 2022

Department of Economics  
Columbia University  
New York, New York 10027, USA

518-441-7937  
kyle.g.coombs@columbia.edu  
kyle.g.coombs.com

## Placement Chairs

Sandy Black, 212-854-3676, sblack@columbia.edu  
Suresh Naidu, 212-854-0027, sn2430@columbia.edu

## Placement Assistant

Amy Devine, (212) 854-6881, aed2152@columbia.edu

## References

Suresh Naidu (co-sponsor)  
Professor  
Department of Economics  
School of International and Public Affairs  
Columbia University  
sn2430@columbia.edu  
212-854-0027

Miguel Urquiola (co-sponsor)  
Professor & Dean of Social Science  
Department of Economics  
School of International and Public Affairs  
Columbia University  
msu2101@columbia.edu  
212-854-3769

Michael Carlos Best  
Assistant Professor  
Department of Economics  
Columbia University  
michael.best@columbia.edu  
212-851-9485

Jack Willis  
Assistant Professor  
Department of Economics  
Columbia University  
jw3634@columbia.edu  
212-851-9485

## Education

**Columbia University**, *Ph.D. Candidate in Economics*  
Expected completion: May 2023  
M.Phil in Economics  
B.A. in Economics

2017-Present  
  
2019  
2019

**Macalester College**, *B.A. in Economics*  
Magna Cum Laude  
Departmental Honors  
Robert L. Bunting Prize in Economics

2010-2014

## Fields of Specialization

Applied Microeconomics; Public Economics; Labor Economics

## Job Market Paper

“Crowding out crowd support? Measuring substitution between formal and informal insurance”

**Abstract:** I present new results on the informal insurance role of person-to-person (P2P) platforms during unemployment spells in 2019 and 2020. I use a new dataset of administrative bank account balances and transactions with 134,547 users who experience at most one unemployment spell between June 2019 and December of 2020, which are linked to a large-scale survey ( $N = 24,671$ ) on expectations and economic preferences. During unemployment, I estimate informal insurance as the P2P inflows in excess of pre-job loss inflows, which makes up 7% and 8% as a share of public and informal insurance for unemployment insurance (UI) recipients in 2019 and 2020, respectively. Event study estimates suggest that inflows from all P2P platforms increase to a peak of \$30 per month on average after job loss for the first three months before falling in the long run and with the decline in inflows closely tracking the timing of UI receipt suggesting a crowd out effect. Those with a history of P2P use have smaller consumption drops during unemployment, suggesting a clear informal insurance role. Next, I leverage three separate plausibly exogenous changes driven by federal pandemic policy to estimate that public benefits crowd out at most \$0.04 of informal insurance during unemployment. I use these crowdout estimates to calculate that welfare falls less than three cents for the marginal dollar of expanded pandemic UI benefits using the formula provided in Chetty and Saez (2010). Furthermore, I show that unemployment P2P inflows are highest for single mothers, suggesting informal insurance targets based on perceived need, but also high for users living in areas with higher income networks, suggesting informal support is correlated with access to economic opportunity.

## Publications

“Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption”

(w/ Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, & Michael Stepner) *Published: AEA Papers and Proceedings*

**Abstract:** We examine the effects of the sudden withdrawal of expanded pandemic unemployment benefits in June 2021 using anonymized bank transaction data for 16,253 individuals receiving unemployment insurance (UI) in April 2021. Comparing the difference-in-differences between states withdrawing and retaining expanded UI, we find that UI receipt falls 36.3 p.p., while employment rises by only 6.8 p.p. by early September. Average cumulative UI benefits fall by \$2,529, while average cumulative earnings increase by only \$292. Heterogeneity by unemployment duration implies that these effects are primarily driven by extensive margin expiration of benefits rather than by intensive margin reductions in the benefit level.

## Working Papers

“Effects of Pandemic Unemployment Policies on Consumption, Savings, and Incomes of Workers: Evidence from Linked Survey-Transactions Data” (w/ Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, & Michael Stepner)

**Abstract:** We present new results on the consumption, savings, and income effects of the introduction of the unusually generous unemployment insurance benefits during the COVID-19 pandemic in April, their abrupt expiration at the end of July, and their short-term partial reintroduction through August and September. We use a new dataset of administrative bank account balances and transactions 1.2 million workers and 258,065 recipients of UI. We link these administrative data with a large-scale survey ( $N = 24,671$ ) of expectations and economic preferences. We find that account outflows fell by 20% among July UI recipients in the 12 weeks since expiration relative to non-recipients. We find that consumption drops around expiration were muted owing to accumulated savings out of the expanded UI over the March-July period; end of July savings were roughly three times as large as savings in January. The magnitude of the drop in savings following the expiration was larger in households with

low expectations of continuing benefits, no children, low risk aversion, and high discount rates. We also find that the temporary Lost Wages Assistance program provided a small but temporary boost to savings and consumption, and the timing of this boost varied based on the staggered adoption by states.

“Scandal-driven Catholic school closures and charter school response: Dynamics of competition for educational services”

**Short Abstract:** Find charter schools filled gaps in the education market as private Catholic schools close using event studies around the announcement of abuse scandals within Catholic churches, suggesting these schools are responsive to competition.

## In Progress

“Charitable Contributions and the Federal Government” (with Michael Best & Daniel Rogger)

**Short Abstract:** We exploit plausibly exogenous turnover of the Senate Finance Committee chair to instrument changes in state-level federal spending as they relate to charitable giving.

“The Price of Politics: How much are evangelical Presbyterians willing to pay to separate?”

**Short Abstract:** Proxy for the value of social policy using variation in the amounts that conservative-learning Presbyterian Churches paid to fulfill a Property Trust Clause and sever ties with the Presbyterian Church (USA) after the denomination voted to allow ordination and marriages of LGBTQ+ individuals.

“Best responses to banning the box? Extensive Labor Supply Responses to Statistical Discrimination”

**Short Abstract:** Leverage staggered roll out of Ban-The-Box (BTB) laws to analyze job search strategies among the unemployed by race. Early results suggest non-hispanic black men are more likely to apply for jobs within the public sector after laws are passed.

## Presentations

**Crowding out crowd support? Measuring substitution between formal and informal insurance**

LACDev Conference, September 2022 *Wellesley College*

**Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption**

AEA Papers & Proceedings Equity And Efficiency In Unemployment Insurance, January 2022 *Online*

**Effects of Pandemic Unemployment Policies on Consumption, Savings, and Incomes of Workers: Evidence from Linked Survey-Transactions Data**

Innovative Data in Household Finance: Opportunities and Challenges, December 2020 *Online*

## Research Assistant

Research Assistant, Columbia University for Suresh Naidu  
Research Assistant, Columbia University for Eric Verhoogen  
Research Assistant, Federal Reserve Board

Spring 2020-Present  
Fall 2018-Spring 2020  
2015-2017

## Teaching Experience

### Columbia University

Instructor of Record, *Public Economics*, solo-taught  
Data Teaching Fellow, *All Senior Seminars* with Michael Best & Susan Elmes  
Teaching Assistant, *Perspectives of Economics* with Suresh Naidu & Joseph Stiglitz  
Teaching Assistant, *The Economics of Race in the United States* with Brendan O’Flaherty

Summer 2022  
Fall 2021-Spring 2022  
Spring 2021  
Fall 2020

**Federal Reserve Board, joint with Howard University**

Teaching Assistant, *Data Analysis and Financial Literacy in R* with William Ampeh & Andrew Cohen    Spring 2017

**Macalester College**

Teaching Assistant: *Principles of Economics* with Amy Damon    Fall 2014

Supplemental Instructor, Macalester College: *Intermediate Microeconomics* with Sarah West    Spring 2013

**Advising**

Honors Thesis Committee Member for Nicholas Di, Macalester College

Fall 2021-Spring 2022

**Academic Service**

**Columbia University**

Coordinator & Mentor, Economics Diversity Initiative Undergraduate Mentoring Program    2020-Present

President & 2nd-Year Representative, Association of Graduate Economics Students (AGES)    2018-2020

Coordinator & Mentor, AGES First-Year Mentoring Program    2018-2021

**Miscellaneous**

*Nationality:* United States

*Human Languages:* English (Native), Spanish (Fluent), Portuguese (Proficient), Quechua (Basic), French (Basic)

*Programming Languages:* R, Python, Stata, Mathematica, SAS, SPSS, MATLAB

## MARTSELLA DAVITAYA

<https://app.scholarsite.io/martsella-davitaya>

md3590@columbia.edu | Department of Economics, Columbia University 420 West 118th Street, NY 10027

Placement Chairs: Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu), Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)

Placement Assistant: Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## REFERENCES

### Hassan Afrouzi

Assistant Professor of Economics

Columbia University

[ha2475@columbia.edu](mailto:ha2475@columbia.edu)

### Michael Woodford

John Bates Clark Professor of Political  
Economy

Columbia University

[michael.woodford@columbia.edu](mailto:michael.woodford@columbia.edu)

### Andres Drenik

Assistant Professor of Economics

The University of Texas at Austin

[andres.drenik@austin.utexas.edu](mailto:andres.drenik@austin.utexas.edu)

## EDUCATION

### Columbia University

<i>Ph.D. in Economics Candidate</i>	2023 (expected)
<i>M.Phil. in Economics</i>	2020
<i>M.A. in Economics</i>	2019
- Fields: Macroeconomics, Econometrics (secondary)	

### NRU Higher School of Economics and University of London International Programs

#### International College of Economics and Finance

<i>B.Sc. in Economics (HSE) / B.Sc. in Economics and Finance (UoL)</i>	2013 – 2017
- Graduated with Honors (HSE) and First-Class Honors (UoL)	

## RESEARCH

My research focuses on monetary economics and household finance and utilizes microeconomic data to study the effects of monetary policy and heterogeneous behavior on macroeconomic outcomes.

### Job Market Paper

*Monetary Policy Implications of Heterogeneous Mortgage Refinancing* with A. Burya

We show that credit score heterogeneity dampens monetary policy transmission through fixed-rate mortgages. Using Fannie Mae Single-Family Loan-Level historical data, we show that a 1% expansionary shock increases the refinancing probability for borrowers with a FICO credit score of 800 twice as much as that of borrowers with a FICO score of 700. We then develop a heterogeneous agent refinancing model with credit score heterogeneity and find that this type of heterogeneity dampens the housing wealth response to monetary policy by 15%, compared to a standard model with only mortgage rate heterogeneity. Borrowers with lower credit scores benefit from refinancing more than borrowers with higher credit scores, but face more difficulties obtaining refinance loans, resulting in a smaller wealth response.

If far-ahead inflation compensation is insensitive to incoming economic news, then inflation expectations are anchored. Using daily bond yield data, we show that inflation compensation is less sensitive to monetary policy shocks in the U.S. if the Fed is more responsive to inflation during the most recent CPI release. The empirical strategy consists of two steps. First, we construct a measure of market expectations about the Fed's reaction to inflation, which equals changes in different interest rates unexplained by the size of inflation shock or exogenous monetary policy. Second, we estimate the sensitivity of inflation compensation's response to monetary policy conditional on the expectations about the Fed's reaction to inflation. Our estimates suggest anchoring of long-term inflation expectations in the U.S.

*Recessions, Social Security and Retirement*

The main difficulty in studying the effect of retirement income on labor supply is that factors that affect retirement income correlate with the labor force participation rate. Using the Health and Retirement Study and Social Security Administration income data, I overcome this difficulty by exploiting the fact that the Social Security benefit is a function of the economic conditions when the worker turns 60. My estimates suggest that the labor supply elasticity of older workers is -0.19 at the extensive margin and -0.57 at the intensive margin. This estimate is relevant for optimizing public and fiscal policy implementation because retirement decisions affect the government budget, and older workers constitute a significant share of the overall labor force.

*Games of Cheating* with Kosmas Marinakis

We develop a model of risky information transmission between a higher and a lower ability agent, which closely resembles academic cheating behavior. Assuming no synergy effects between agents or correlation of outputs, we derive a substitution and a strategic effect, both of which dictate the behavior of agents when information transmission is feasible. We show that the higher ability agent may find it strategically useful to moderate her effort in order to limit the supply of information and curb her risk. We also find that the use of a relative compensation scheme may cause cheating activity to increase when the coefficient of relative incentives is not sufficiently high. Even when relative incentives are powerful enough to mitigate cheating, this seriously distorts the incentives, causing high-ability agents to further cut down on effort. We conclude that performing the group is higher when similar ability agents are matched, and that the only cost-free way to deter cheating is to match agents of similar abilities together, since the risk of transmitting information will offset its benefit. We also extend the model to include the case where the higher ability agent can choose the level of her cheating supply.

**AWARDS, FELLOWSHIPS & GRANTS**

**Awards**

Wueller Teaching Award, best teaching assistant in M.A. courses (Columbia University)	2021 – 2022
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses, online format (Columbia University)	2020 – 2021
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses (Columbia University)	2019 – 2020
Prize for Academic Achievement (University of London)	2017
Academic Excellence Award (University of London)	2017
Top 8 <sup>th</sup> in Econometrics Universiade organized by Moscow State University	2017
Top 15% High-Quality Award in Sanofi Health Guardians Business Consulting Case Competition (1,380 competitors)	2016

## Fellowships

Dean's Fellowship (Columbia University)	2017 – 2023
Dissertation Fellowship (Columbia University)	2022
Wueller Fellowship (Columbia University)	2017 – 2022
Merit-based scholarship covering 75% of tuition fees (Higher School of Economics)	2014 – 2017
Merit-based scholarship covering 60% of tuition fees (Higher School of Economics)	2013 – 2014

## Grants

GSAS Matching Travel Grant (Graduate School of Arts and Sciences, Columbia University)	2022
Economics Fluctuations Colloquium Travel Grant (Department of Economics, Columbia University)	2022
The Program for Economic Research (PER) Travel Grant (Columbia University)	2022

## TEACHING EXPERIENCE & TRAINING

### Columbia University

<i>Teaching Development Program (Foundational Track)</i> at the Center for Teaching and Learning	Fall 2022
<i>Teaching Assistant</i> in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2021
<i>Junior Instructor</i> in BUFE0220: Introduction to Business, Finance, and Economics (Programs for High School Students) for Professor Raheem A. Haji	Summer 2021
<i>Teaching Assistant</i> in ECONGU4213: Advanced Macroeconomics (Undergraduate) for Professor Irasema Alonso	Spring 2021
<i>Teaching Assistant</i> in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2020
<i>Teaching Assistant</i> in GR5711: Financial Economics (Graduate) for Professor Steven Wei Ho	Spring 2020
<i>Teaching Assistant</i> in ECON GR6212: Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2019
<i>Teaching Assistant</i> in ECONUN3211: Intermediate Microeconomics (Undergraduate) for Professor Steven Olley	Spring 2019
<i>Teaching Assistant</i> in ECONUN1105: Principles of Economics (Undergraduate) for Professor Caterina Musatti	Fall 2018

### National Research University - Higher School of Economics

<i>Teaching Assistant</i> at the Department of Economics (Undergraduate) for Professor Lubov Schukina	2015 – 2016
<i>Lecturer and Class Teacher</i> at the ICEF Evening School (Programs for High School Students)	2015 – 2016

## WORK EXPERIENCE

### Columbia Business School

<i>Research Assistant</i> for Professor Steven Zeldes	2019 – 2020
- Tested cointegration between stock prices and GDP per capita for 49 countries using the Global Financial Database	

### Promsvyazbank

<i>Summer Intern</i> at the Department of Corporate Business Development	2015
- Developed the VBA code for filtering and analyzing the data on the corporate bank clients	

## CONFERENCES & PRESENTATIONS

AREUEA (The American Real Estate and Urban Economics) National Conference	2022
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SKILLS

*Technical:* MATLAB, STATA, R, EViews, VBA Excel  
*Languages:* Russian (Native), Georgian (Native), English (Fluent), Spanish (Intermediate)

MISCELLANEOUS

<i>Member of Columbia Econ Department Soccer Team "The New Kanesians" (Keynes+H.Kane)</i>	Sep 2021 –
<i>Board Member (2017 – present) and President (2019 – 2020) of the Association of Graduate Economics Students (AGES)</i>	Sep 2017 –
<i>Member of Mentoring Program at the International College of Economics and Finance</i>	2014 – 2016
<i>Member of IcefCrew – student community that organizes all extracurricular events at the ICEF</i>	2013 – 2016
<i>Member of the Association of Intellectual Clubs at the Higher School of Economics</i>	2013 – 2016



# Bruno Furtado

Department of Economics  
Columbia University GSAS  
1022 International Affairs Building (IAB)  
420 West 118th Street  
New York, NY 10027

E-mail: [bruno.furtado@columbia.edu](mailto:bruno.furtado@columbia.edu)  
Mobile: 917-992-4681  
Nationality: Brazilian

## EDUCATION

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2017 - MAY 2023 (expected)	PhD in Economics <b>Columbia University GSAS</b> , New York, USA <i>Committee:</i> Navin Kartik (chair), Mark Dean, Jose Luis Montiel Olea
2013 - 2015	MSc in ECONOMICS <b>University of Brasília</b> , Brasília, Brazil
2006 - 2011	Bachelor of ECONOMICS <b>University of Brasília</b> , Brasília, Brazil

## FIELDS

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*Primary:* Microeconomic Theory

*Secondary:* Econometrics

*Research Interests:* Decision Theory, Information Economics, Mechanism Design, Econometrics

## RESEARCH

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### Working Papers

1. **Job market paper:** “*The Behavioral Implications of Statistical Decision Theory*”

*Abstract:* Statistical decision theory (SDT), which models the information acquisition and decision under uncertainty problems as strategic games against Nature, is the preferred framework used to study information economics. Surprisingly, axiomatic representations of statistical decision theoretic models have hitherto been absent from the literature, leaving the exact behavioral implications of such models unclear. This paper provides axioms on preferences over the objects of choice of SDT – decision rules and experiments – that characterize a very general statistical decision theoretic model. Using the representation of this base model and a result that connects SDT to the Anscombe-Aumann framework, I then develop a methodology to import existing representation results from classic decision theory into SDT. I illustrate the power of this technique by providing representations of SDT versions of some widely used decision theoretic models. While I initially axiomatize preferences over decision rule-experiment pairs, many applications are concerned only with choices between decision rules for a given experiment, or with choices between experiments paired with a specific decision rule. To bridge the gap between the main representation results and these applications, I also characterize when such choices are derived from a single preference over pairs of decision rules and experiments.

2. “*Statistical Mechanism Design: Robust Pricing and Reliable Projections*”  
with Duarte Gonçalves

*Abstract:* This paper studies the robustness of pricing strategies when a firm is uncertain about the distribution of consumers’ willingness-to-pay. When the firm has access to data to estimate this distribution, a simple strategy is to implement the mechanism that is optimal for the estimated distribution. We find that such empirically optimal mechanism boasts

strong profit and regret guarantees. Moreover, we provide a toolkit to evaluate the robustness properties of different mechanisms, showing how to consistently estimate and conduct valid inference on the profit generated by any one mechanism, which enables one to evaluate and compare their probabilistic revenue guarantees.

3. “*Rational Choice with Full-Comparability Domains*”  
with Leandro Nascimento and Gil Riella

*Abstract:* We propose a new model of choice in the presence of incomplete preferences. Instead of simply choosing an element which is maximal according to her preferences, the decision maker divides the space of alternatives into subdomains inside which her preferences are complete. She then acts fully rationally and maximizes her preferences inside these domains of full comparability. Representation theorems are given in which the decision maker always satisfies a weaker form of the Weak Axiom of Revealed Preference and different postulates are imposed on a general notion of revealed preference. They identify a class of choice functions that is nested between choice functions represented by multiple rationales and the standard model of rational choice.

## Work in Progress

4. “*Identifiability of Finite Mixture Models via Non-negative Matrix Factorization*”

*Abstract:* High-dimensional latent parameter models, such as finite mixtures and topic models, are notoriously only set identifiable, in general. By establishing directly verifiable conditions under which a matrix has a unique exact non-negative factorization (up to permutations), I provide sufficient conditions for point identifiability of mixture models. Since these conditions are imposed on the data matrix before factorization, they can be checked prior to estimation. I also show that, when the model is identifiable, approximate non-negative matrix factorization provides a consistent, likelihood-free estimator of mixture weights. Applications include identifiability and point estimation of topic models.

## CONFERENCE PRESENTATIONS

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2022	26 <sup>th</sup> Spring Meeting of Young Economists, Orléans, France Title: “ <i>Behavior under Uncertainty in Statistical Decision Problems</i> ”
2019	41 <sup>st</sup> Meeting of the Brazilian Econometric Society, São Paulo, Brazil <i>Economic Theory Prize Session</i> Title: “ <i>Rational Choice with Full-Comparability Domains</i> ”
2015	37 <sup>th</sup> Meeting of the Brazilian Econometric Society, Florianópolis, Brazil Title: “ <i>Rational Choice with Categories</i> ”
2014	International Workshop of the Game Theory Society, São Paulo, Brazil Title: “ <i>Auction Design and Collusion in Public Procurements</i> ”

## DISTINCTIONS AND AWARDS

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2019/2020	Dhrymes Econometrics Award of the Columbia University Economics Department
2019	Brazilian Econometric Society best paper award in Economic Theory for “ <i>Rational Choice with Full-Comparability Domains</i> ”

## GRANTS

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2017 - 2023	Columbia GSAS Dean's Fellowship
2017 - 2022	Wueller Fellowship
2022	Columbia University GSAS Dissertation Fellowship
2022	Columbia University Department of Economics Teaching Fellowship
2020	MTI Summer Research Grant
2019	PER Summer Research Fellowship
2020	Sander's Fellowship for Promising Students in the Department of Economics
2013 - 2015	CNPq Fellowship for MSc. Program in Economics

## TEACHING EXPERIENCE

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### TA Appointments at Columbia GSAS

2021	<ul style="list-style-type: none"><li>• PhD Mathematical Methods for Economists, Prof. Elliot Lipnowski</li><li>• PhD Introduction to Econometrics II, Profs. Jushan Bai and Simon Lee</li></ul>
2020	<ul style="list-style-type: none"><li>• PhD Introduction to Econometrics I, Prof. Jose Luis Montiel Olea</li><li>• Behavioral Economics, Prof. Mark Dean</li></ul>
2019	<ul style="list-style-type: none"><li>• Cognitive Mechanisms and Economic Decisions, Prof. Michael Woodford</li><li>• Principles of Economics, Profs. Sunil Gulati and Wouter Vergote</li></ul>
2018	<ul style="list-style-type: none"><li>• Principles of Economics, Prof. Anna Musatti</li></ul>

## WORK AND RESEARCH EXPERIENCE

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2019 - 2020	Research Assistant at the Columbia University Department of Economics <i>Supervisor: Navin Kartik</i>
2014 - 2017	Finance and Control Auditor at Brazil's Treasury Department, Brasilia, Brazil <i>Economic Affairs Advisory/Cabinet of the Minister of Finance</i>
2009 - 2010	Research Assistant at Sustainable Development Centre (CDS) - UnB, Brasília, Brazil <i>LUPIS Project Scholar</i>
2008 - 2009	Intern at Integration Ministry, Brasília, Brazil <i>Budget and Finance Coordination</i>

## LANGUAGES

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Portuguese (Native), English (Fluent), Spanish (Intermediate), Japanese (Intermediate)

## COMPUTER SKILLS

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Wolfram Mathematica, R, C, MATLAB, L<sup>A</sup>T<sub>E</sub>X, Office.

## REFERENCES

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Professor Navin Kartik  
Department of Economics  
Columbia University  
420 West 118th Street  
New York, NY 10027  
212-854-3926  
[nkartik@gmail.com](mailto:nkartik@gmail.com)

Professor Mark Dean  
Department of Economics  
Columbia University  
420 West 118th Street  
New York, NY 10027  
212-854-3669  
[mark.dean@columbia.edu](mailto:mark.dean@columbia.edu)

Professor Jose Luis Montiel Olea  
Department of Economics  
Cornell University  
404 Uris Hall, Room 448  
Ithaca, NY 14853  
617-821-1336  
[montiel.olea@gmail.com](mailto:montiel.olea@gmail.com)

# NAMAN GARG

Department of Economics  
Columbia University  
New York, NY 10027

naman.garg@columbia.edu  
www.namangarg.net

PLACEMENT CHAIRS: Sandra Black sblack@columbia.edu  
Suresh Naidu sn2430@columbia.edu

PLACEMENT ASSISTANT: Amy Devine aed2152@columbia.edu

## Education

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**Ph.D. Economics** 2023  
Columbia University (Expected)

**M.A. Economics** 2016  
Delhi School of Economics, University of Delhi

**B.Tech. Production and Industrial Engineering** 2014  
Indian Institute of Technology (IIT), Delhi

## Fields Of Specialization

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*Primary Fields:* Development Economics, Political Economy

*Secondary Fields:* Economics of Conflict, Economics of News Media, Industrial Organization

## Working Papers

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*JOB MARKET PAPER*

**Learning to Resist Misinformation: Field Experiment in India** *(with Monika Yadav)*

**Abstract:** Can people learn to identify misinformation, and to what extent can this mitigate the effects of misinformation on their beliefs, attitudes, and behavior? We conduct a large field experiment with an intervention aimed at improving people's ability to discern the veracity of information they encounter on social media and reduce their misperceptions about minorities. The experiment is done in India, where there has recently been a high level of misinformation on social media, a significant portion of which targets Muslims, the largest religious minority in the country. The intervention is to provide weekly digests with summaries of fact-checks of viral misinformation, along with narrative explainers on issues with a lot of misinformation around them. We find that the intervention increases people's ability to correctly identify misinformation as false by eleven percentage points. However, it also decreases belief in true news by four percentage points. We estimate a structural model to disentangle the two mechanisms of impact—truth discernment, which is the ability to correctly distinguish between false and true news; and skepticism, which changes the overall credulity for both false and true news. The impact is driven by both an increase in truth discernment and skepticism. As people's factual beliefs become more accurate, it also leads to changes in policy attitudes and behavior. Treated individuals are less likely to support discriminatory policies against Muslims and are more likely to pay for efforts to prevent harassment of inter-faith couples.

## Ethnic Violence and Economic Growth

**Abstract:** I estimate the impact of ethnic violence on economic growth using data on Hindu-Muslim riots in India. For causal identification, I use shift-share instruments to isolate exogenous national shocks to violence from endogenous local shocks. On average, a riot reduces state GDP growth rate by 0.14 percentage points. To investigate mechanism, I estimate the dynamics of impact using the synthetic control method and compare it to theoretical predictions from a shock to social capital versus physical

capital. This shows that the negative impact of violence is likely driven by a negative shock to social capital from higher animosity and discrimination among communities exposed to violence. This impact of violence on growth creates a vicious cycle when one also considers the effect in the opposite direction – lower growth leading to more violence. The multiplier due to this vicious cycle magnifies the impact of external growth shocks by 40 percent in equilibrium. This highlights the importance of having strong institutions to manage conflict for the long-term prosperity of societies.

## Work in Progress

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- Where is the Boundary: Using night lights to construct panel of city shapes
- Colonial Origins of Ethnic Conflict

## Awards, Grants and Fellowships

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### Awards

Wueller Pre-Dissertation Award (Runner-up), <i>Columbia University</i>	2020
Harris Prize for best second year paper (Runner-up), <i>Columbia University</i>	2019
Indian National Mathematical Olympiad (All India Rank – 21), <i>National Board for Higher Mathematics</i>	2009

### Grants

Research Grant; <i>INCITE, Columbia University</i>	2019
PER Data Purchase Grant, <i>Columbia University</i>	2019
PER Grant for Experimental Research, <i>Columbia University</i>	2021

### Fellowships

Dissertation Fellowship, <i>Columbia University</i>	2022
Dean's Fellowship, <i>Columbia University</i>	2017-2022
Krishnaraj Summer Research Fellowship, <i>Delhi School of Economics</i>	2015

## Research Experience

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### *Columbia University*

Research Assistant (Prof. Réka Juhász)	2018
Research Assistant (Prof. Navin Kartik)	2018
Research Assistant (Prof. Joseph Stiglitz)	2018-2019
Research Assistant (Prof. Miguel Urquiola)	2019-2020

### *Reserve Bank of India*

Research Associate	2016
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## Teaching Experience

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### *Principles of Economics*

Teaching Assistant (Prof. Prajit Dutta)	Fall 2020
Teaching Assistant (Prof. Sunil Gulati)	Spring 2021

### *Public Economics*

Teaching Assistant (Prof. Wojciech Kopczuk)	Summer 2021
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### *Intermediate Microeconomics*

Teaching Assistant (Prof. Wouter Vergote)	Fall 2021
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## Miscellaneous

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### *Technical Skills:*

Programming Languages: R, Python, Stata, MATLAB, JavaScript, QGIS

DevOps: SQL, MongoDB, Bash Scripting, Docker, NGINX

*Languages*: English, Hindi (Native)

## References

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### **Andrea Prat** (*co-sponsor*)

Richard Paul Richman Professor of Business  
Columbia Business School  
andrea.prat@columbia.edu

### **Michael Carlos Best** (*co-sponsor*)

Assistant Professor of Economics  
Department of Economics  
Columbia University  
michael.best@columbia.edu

### **Cristian Pop-Eleches**

Professor  
School of International and Public Affairs  
Columbia University  
cp2124@columbia.edu

### **Suresh Naidu**

Professor of Economics and Public Affairs  
Department of Economics/SIPA  
Columbia University  
sn2430@columbia.edu

# Bhargav Gopal

Department of Economics  
Columbia University  
New York, NY 10027

Phone: 818-451-3475  
Email: [bg2600@columbia.edu](mailto:bg2600@columbia.edu)

Placement Chairs: Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu), Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Placement Assistant: Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## Education:

2023 (expected)	Ph.D. Economics	Columbia University
2015	B.A Economics	University of California, Berkeley

**Fields of Specialization:** Labor Economics, Law and Economics

**Job Market Paper:** *How Do Firms Respond to Gender Quotas? Evidence from California's Senate Bill 826*

**Abstract:** More than one-third of US-listed companies had all-male corporate boards in 2015. Quotas are discussed as policy levers to increase gender diversity, but there is much controversy whether they can increase female representation without harming organizational outcomes. Using the passage of a California law in 2018 that required the presence of at least one woman on corporate boards by the end of the following year, I estimate the effects of gender quotas on firm performance. I find the quota reduced the share of all-male boards by twenty-five percentage points within one year, with no reductions in operating performance, firm values, or shareholder returns within three years. These results question why all-male boards were prevalent prior to the legislation. I find that women directors are less likely to possess top-level experience and employment connections with corporate executives, which both appear as viable explanations. These findings provide insight on why women continue to lack representation in corporate leadership.

## Working Papers

*Do Non-Compete Agreements Help Workers? Evidence from the NLSY*

**Abstract:** Non-compete agreements are provisions within employment contracts that prevent workers from joining competing firms. They are prevalent in the US workforce, with 38% of workers having signed such clauses at some point in their careers, but there is limited research on the type of workers who sign these agreements. Using newly released panel data on the usage of non-compete agreements from the NLSY, I find that non-compete signers earn 6 dollars more per hour and remain with their employers for 3 more months than individuals without such agreements. Non-compete signers also receive more employer-provided training, but do not experience higher wage growth.



These facts are rationalized through a theoretical model that builds upon Hashimoto (1981). Under the model's assumptions, which includes the premise that the contract is not renegotiated, I show that non-compete agreements can create one market failure – inefficient lack of job separation – while mitigating a separate market failure – inefficient provision of industry-specific training by firms. The model yields the predictions that (i) non-compete agreements are more likely to be used in industries where firms must share information that make the worker more productive at competing firms, (ii) non-compete signers have longer job tenures, and (iii) non-compete signers receive more firm-provided training. All predictions appear to hold in the data.

### *The Effects of Non-Compete Regulation: Theory and Evidence*

**Abstract:** Using individual-level data from the Current Population Survey and 18 non-compete regulatory changes between 1992-2014, I study the effect of state-level non-compete enforcement on wages, unemployment, labor force participation, and job mobility. Leveraging the fact that public sector workers do not have non-compete agreements, I perform a triple difference analysis to find that increases in non-compete enforcement are associated with hourly wage increases of 3-7%, with larger gains for job leavers than job stayers. I find stricter non-compete enforcement to not be associated with decreases in job mobility, and to not be tied with unemployment or labor force participation decisions. The empirical results are interpreted through the lens of an incomplete contracting model following Meccheri (2009). Under the assumptions of the theoretical model, I show that non-competes mitigate the market failure of underprovided firm-sponsored general training, thus increasing the worker's productivity. The extent to which the worker is compensated for this increase in productivity depends an unobserved parameter: the number of firms that can offer a contract with an enforceable non-compete. The fact that increased enforcement raises the wages of job leavers more than job stayers is consistent with the model's predictions.

### **Honors and Awards:**

Dean's Fellowship, Department of Economics, Columbia University (2017 – 2021)  
Dissertation Fellowship, Department of Economics, Columbia University (2022)  
Program for Economic Research Grant (2022)  
Microeconomic Theory Initiative Matching Grant (2022)  
Applied Microeconomics Colloquium Grant (3x -- 2020, 2021, 2022)  
Graduate School of Arts and Sciences Grant (2022)

### **Invited Presentations:**

Interdisciplinary Graduate Student Seminar Series at Columbia University (2022)  
- Recipient of \$500 honorarium.  
Discrimination and Disparities Workshop at University of East Anglia (2022)  
Annual Economics Graduate Student Conference of Washington University in St. Louis (2022)

**Research Experience:**

Research Assistant for Sandra Black at Columbia University (2019 - 2021)

Research Assistant for John Donohue at Stanford Law School (2015 – 2017)

**Teaching Experience:**

Economics of Race in the United States – TA (Fall 2018)

Economics of New York City – TA (Spring 2019)

“Thank-a-Teaching-Assistant” Award from the Center for Teaching and Learning

**Service:**

Arts and Sciences Graduate Council at Columbia University (2019 – 2021)

Recipient of Honorary Own Award for Leadership and Service (2021)

**Undergraduate Students Supervised (First Job, Role):**

Baturalp Yalcin (UC Berkeley IEOR Department, PhD Student)

Bailey Kraus (Federal Reserve Bank of New York, Staff)

Michael Duarte (Columbia University Economics Department, Full-Time RA)

Margaret Gleason (Federal Reserve Bank of New York, Staff)

Eli Lee (United States Attorneys’ Office, Staff)

Adithya Raajkumar (Federal Reserve Board, Staff)

William Pagel (Bank of England, Staff)

**Other Work Experiences:**

Consultant for Lumiere Education (2020 - 2022)

Writing Tutor (2012 – 2014)

**Skills:**

Languages: Proficient in Spanish

Computer and Technical: Advanced proficiency in R and Stata. Proficient in LaTeX, SQL, Linux

**Personal:**

Born on 08/03/1993

US Citizen

**References:**

Michael Best:

[mcb2270@columbia.edu](mailto:mcb2270@columbia.edu)

Sandra Black:

[sblack@columbia.edu](mailto:sblack@columbia.edu)

Bentley MacLeod:

[wbm2103@columbia.edu](mailto:wbm2103@columbia.edu)

# Sakshi Gupta

Columbia University  
Department of Economics  
420W 118th Street  
New York, NY - 10027

Email: [sakshi.gupta@columbia.edu](mailto:sakshi.gupta@columbia.edu)  
Website: [gupta-sakshi.github.io](https://github.com/gupta-sakshi)  
Phone: +1-610-746-4504

## EDUCATION

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Ph.D. candidate, <b>Columbia University</b> <i>Dissertation Title - "Essays in Development Economics"</i>	May 2023 (Expected)
M.Phil., <b>Columbia University</b>	2020
M.A., Economics, <b>Columbia University</b>	2019
M.A., Economics, <b>Delhi School of Economics, University of Delhi</b> <i>Gold Medallist</i>	2015
B.A., Economics, <b>St. Stephen's College, University of Delhi</b>	2013

## RESEARCH FIELDS

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**Primary:** Development Economics, Labor Economics, Applied Microeconomics  
**Secondary:** Economics of Gender

## HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

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Ralph Erdman Holben Fellowship, Columbia University	2022
Reubens Fellowship, Columbia University	2021
Wueller Fellowship, Columbia University	2017-22
Dean's Fellowship, Columbia University	2017-22
Wueller Pre-Dissertation Award (Runner up), Columbia University	2020
Data Purchase Grant Award, PER, Columbia University	2020
Hira Lal Bhargava Gold Medal, Delhi School of Economics	2016
K.C. Nag Memorial Prize, Delhi School of Economics	2016
Shri Ram Behari Rohatagi Memorial Gold Medal, Delhi School of Economics	2016
Dr. Manmohan Singh Fellowship, Delhi School of Economics	2014-15
Prof. Late Suresh D. Tendulkar Memorial Scholarship, Delhi School of Economics	2013-14
The Sumitomo-St. Stephen's College Scholarship	2010-13
George K George Kollamkulam Memorial Award, St. Stephen's College	2013

## RESEARCH EXPERIENCE AND OTHER EMPLOYMENT

---

World Bank, Development Research Group, Short Term Consultant	2021
Columbia University, Research Assistant for Sandra Black	2021-22
Columbia University, Research Assistant for Miguel Urquiola	2020
Columbia University, Research Assistant for Michael Best	2019
Columbia University, Research Assistant for Jonas Hjort	2019
Columbia University, Research Assistant for W. Bentley Macleod	2018
Delhi School of Economics, Research Assistant for Ram Singh	2016-17

American Express India Ltd., Risk and Information Management Group, Business Consultant	2015-16
Reserve Bank of India, Rural Planning and Development Group, Summer Intern	2014

## TEACHING EXPERIENCE

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(Undergraduate Teaching unless specified)

Principles of Economics, Columbia University, TA for Sunil Gulati <i>Received Wueller Award for best Teaching Assistants (Runner-up)</i>	2019-20
Globalization and its Risks, Columbia University, TA for Graciela Chichilnisky	Spring, 2019
Financial Economics, Columbia University, TA for Vivette Ancona	Summer, 2018
Microeconomics and Game Theory (Masters), Delhi School of Economics, Remedial Teacher	2016-17

## WORKING PAPERS

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### **Labor Market Response to Gendered Breadwinner Norms: Evidence from India (*Job Market Paper*)**

*Featured on the Ideas for India Blog*

Over the past few decades, Indian women have become more educated and have gained greater control over their fertility decisions, but this has not led to increased participation in the labor market. I examine the role played by the male breadwinner norm in explaining this puzzle. I first establish that there is a sharp discontinuity in the distribution of the share of wife's income in the total household income to the right of 0.5 (where the wife's income exceeds the husband's income). The size of this discontinuity is much larger than what is observed in developed countries like the U.S. I show that this pattern can be best explained by gender identity norms which make couples averse to situation where wife earns more than her husband, and that this aversion has real implications on the labor market decisions of the wife. First, the wife is less likely to participate in market activities if her potential income is likely to exceed her husband's. Second, she also earns less than her potential if she does work and can potentially out earn her husband. Evidence from observing couples overtime and bunching methods supplement these results.

### **Liquidity Shock and Schooling: Evidence from India's Demonetization**

*with Dhruv Jain*

Evidence across developing countries suggests that parents are often credit constrained when making schooling decisions for their children. But little is known about the severity of this constraint. That is, would temporary shocks to liquidity affect parents' decisions? To identify this effect, we use a shock to available cash in the economy induced by India's 2016 demonetization. The policy made 86% of currency-in-circulation illegal overnight and individuals could deposit old notes at the bank in exchange for new ones. We identify the impacts of demonetization's severity by leveraging discontinuities in banking access across Indian districts. Difference-in-discontinuity estimates show that districts which experienced a more severe liquidity shock saw an increase in dropout from private schools but no effect in free public schools, consistent with the presence of real credit constraints.

### **Measuring the Effectiveness of Financial Incentives in Altering Parents' Fertility Decisions**

Do financial incentives provided by governments, for the protection and betterment of a girl child, have intended effects on the fertility decision of parents? As part of a broader research agenda, I look at this question in context of an intervention, Bhagyalakshmi. Launched in March 2006, in an Indian state, Karnataka, the intervention provided financial incentives to couples for having girl children with an intention to improve the sex ratio and the condition of girls born in the state. My results suggest that Bhagyalakshmi led to an increase in total fertility in Karnataka by approximately 1.3% but had no effect on the proportion of sons living in the state, indicating the the scheme was not able to achieve it's intended goals.

## POLICY PAPERS

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**Is there an Urban Wage Premium in Rwanda?** *with Jonathan Bower and Carlo Menon (IGC WP C-20061-RWA-1) - [Blog](#)*

**Sharing Responsibility through Joint Decision-making and Implications for Intimate-Partner Violence: Evidence from 12 Sub-Saharan African countries** *with Aletheia Donald, Cheryl Doss and Markus Goldstein (WB Working Paper WPS9760) - [Blog](#)*

## SELECTED WORK IN PROGRESS

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**Banks and Roads: Do Complementarities Matter?** *with Dhruv Jain*

**Do Informal Firms Benefit from Expansion in Formal Credit? Regression Discontinuity Evidence from India** *with Dhruv Jain*

**The Measurement and Evolution of Son Preference in India** *with S Anukriti and Nistha Sinha*

## PROFESSIONAL ACTIVITIES

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### Conference Presentations

The 9th South Asia Economic Policy Network Conference, World Bank	2022
15th Annual Conference on Economic Growth and Development, ISI Delhi	2021
Young Economist Symposium (YES)	2021
North East Universities Development Consortium (NEUDC), Dartmouth College	2020

## TECHNICAL SKILLS

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**Languages/Software:** Stata, R, LaTeX, GitHub, Matlab, SAS, SQL

**Tools:** Panel Data Econometrics, Causal Inference, Applied Statistics

## ADVISORS

---

**Sandra Black (Chair)**  
Department of Economics  
Columbia University  
sblack@columbia.edu

**Miguel Urquiola**  
Department of Economics  
Columbia University  
miguel.urquiola@columbia.edu

**Michael Best**  
Department of Economics  
Columbia University  
mcb2270@columbia.edu

## James Jiang

Department of Economics  
Columbia University  
420 West 118th Street  
New York, NY 10027

+1 (718) 308-6597  
[james.jiang@columbia.edu](mailto:james.jiang@columbia.edu)

### *Placement Chairs:*

Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu)  
Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)

### *Placement Assistant:*

Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

### **Fields of Specialization**

Applied Microeconomics, Health Economics

### **Education**

Columbia University	Ph.D., Economics	Expected 2023
	M.Phil., Economics	2020
	M.A., Economics	2018
University of Hong Kong	B.Econ. ( <i>First Class Honours</i> )	2016

### **Job Market Paper**

Lead Pipe Information and Housing Prices: An Analysis in Washington, DC

**Abstract:** In 2016, the Water and Sewer Authority of Washington, DC released an online map that contains information on lead service lines (LSLs) for all properties in the district. Using the release as a natural experiment, this paper estimates the effect of the new information on prices of properties with and without LSLs. Neither a difference-in-differences model nor a repeat sales model captures a significant divergence between prices of the two groups after the map's release, implying the housing market response to the information was limited.

### **Working Paper**

Marriage Penalty and the Decision to Marry: Same-Sex Couples After *U.S. v. Windsor*

**Abstract:** The U.S. Supreme Court's ruling on *United States v. Windsor* in June 2013 compelled the federal government to recognize state-sanctioned same-sex marriages, including for tax purposes. The switch in the income tax filing status for same-sex couples implied that the marriage penalty or subsidy that came with joint filing became a legitimate concern for couples making a marriage decision. Using repeated cross-sectional data, I find that lesbian couples who had more to gain (or less to lose) from marriage were more likely to marry after the Supreme Court ruling. No comparable effect is found for gay couples.

### **Teaching Assistant Experience**

Principles of Economics	Fall 2020, 2022
Microeconomic Analysis I (M.A.)	Fall 2017, 2018, 2019
Microeconomic Analysis II (M.A.)	Spring 2020, 2021
Introduction to Econometrics	Spring 2019
Intermediate Microeconomics	Spring 2018
Introductory Microeconomics (Undergraduate TA)	Fall 2015

### **Honors and Awards**

Teaching Fellowship, Department of Economics, Columbia University	2022
Dissertation Fellowship, Department of Economics, Columbia University	2021
Wueller Teaching Award (runner-up), Columbia University <i>in the M.A. course category</i>	2021
Dean's Fellowship, Department of Economics, Columbia University	2016–2020
Jao Tao Su Prize in Economics, University of Hong Kong <i>for best overall academic performance in degree curriculum</i>	2016
C.V. Starr Scholarships, University of Hong Kong	2014
CMA and Donors Scholarship, University of Hong Kong	2014
Dean's Honours List, Faculty of Business and Economics, University of Hong Kong	2013–2015
HKU Foundation Scholarships for Outstanding Mainland Students, University of Hong Kong	2012–2015

### **Miscellaneous**

<b>Languages</b>	Mandarin (native), English (fluent), Cantonese (elementary)
<b>Software</b>	Stata, R, MATLAB, SAS
<b>Year of Birth</b>	1994

### **References**

Michael Best	Douglas Almond	Miguel Urquiola
<i>Assistant Professor</i>	<i>Professor of Economics and</i>	<i>Chair and Professor of Economics and</i>
Columbia University	<i>International and Public Affairs</i>	<i>International and Public Affairs</i>
(212) 851-9485	Columbia University	Columbia University
<a href="mailto:mcb2270@columbia.edu">mcb2270@columbia.edu</a>	(212) 854-7248	(212) 854-3769
	<a href="mailto:da2152@columbia.edu">da2152@columbia.edu</a>	<a href="mailto:msu2101@columbia.edu">msu2101@columbia.edu</a>

# Yu Kyung Koh

October 2022

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Department of Economics  
Columbia University  
New York, NY 10027

773-818-5894  
[yukyung.koh@columbia.edu](mailto:yukyung.koh@columbia.edu)  
[www.yukyungkoh.com](http://www.yukyungkoh.com)

Placement Chairs: Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu), Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Placement Assistant: Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## EDUCATION

Ph.D. in Economics	Columbia University	2017-Present
M.A. in Economics	Columbia University	2019
B.A. in Economics	The University of Chicago	2015

## FIELDS OF SPECIALIZATION

*Fields:* Family Economics, Labor Economics, Applied Microeconomics

## REFERENCES

Pierre-André Chiappori ( <i>Co-sponsor</i> ) E. Rowan and Barbara Steinschneider Professor of Economics Columbia University <a href="mailto:pc2167@columbia.edu">pc2167@columbia.edu</a>	Bernard Salanié ( <i>Co-sponsor</i> ) Professor of Economics Columbia University <a href="mailto:bs2237@columbia.edu">bs2237@columbia.edu</a>	Brendan O’Flaherty Professor of Economics Columbia University <a href="mailto:bo2@columbia.edu">bo2@columbia.edu</a>
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## JOB MARKET PAPER

“Evolution of Gains from Racial Desegregation in the US Marriage Market”

**Abstract:** Interracial marriages have increased in the US over the past few decades, but the trends are heterogeneous across demographic groups. Who has gained more from racial desegregation in the marriage market, and what drives the differing welfare gains across groups? This paper estimates individual utility gains from marital racial integration that accounts for the heterogeneous evolution of costs of interracial marriage experienced by different races and education groups. To this end, I build a transferable utility matching model and estimate the model for all race-education matchings over the past four decades. The model allows me to define and estimate the type-specific utility gains from marital racial integration by comparing the equilibrium single rates in the observed marriage market with the ones in a completely segregated marriage market. I find that among Blacks, marital racial desegregation has improved welfare only for college-educated Black men. Black women did not gain at all from marital desegregation regardless of their education level. Among Whites, college-educated men benefited the most from marital racial desegregation. I implement a novel decomposition method based on quantitative comparative statics to examine the separate roles of changing population distribution and changing values of marriages on the individual welfare gains from marital racial desegregation. I find that the rise in the welfare gains for college-educated Black men is most largely driven by the increase in the value of marriages with college-educated White women. In contrast, the rise in the welfare gains for college-educated White men is mostly driven by the rise in the number of college-educated Asian and Hispanic women over the past four decades.



## WORKING PAPERS

“Spousal Bargaining Power and Consumption of Married Couples in the US: Evidence from the Scanner Data”  
(with So Yoon Ahn)

**Abstract:** This paper studies how spousal bargaining power affects consumption patterns of married households in the US, using a detailed barcode-level dataset. We use two distribution factors as proxies for spousal bargaining power: (1) spouses’ relative education and (2) spouses’ relative potential wage, which is our preferred distribution factor. As an arguably exogenous measure of bargaining power, our relative potential wage is constructed as a Bartik-style measure of female-to-male wage ratio, exploiting county-level variations in heterogeneous exposure to different industries and state-wide wage growth. We find that the expenditure shares on women’s beauty goods increase and the expenditure shares on alcohol decrease significantly both when the relative education of wives increases and when the relative potential wages of wives increase. These results are consistent with household bargaining explanations. For couples with children, improved women’s household bargaining position is associated with a higher budget share on books, stationery, and school supplies, which are potentially related to investment in children. For singles, we do not find statistically meaningful effects of relative potential wage on any of their consumption outcomes, which strengthens the interpretation that the relative wage only affects couples’ consumption decisions.

## SELECTED WORK IN PROGRESS

“Geographical Variation in Gains from Racial Integration in the US Marriage Market”

## PRE-DOCTORAL PUBLICATION

“Evaluation of the Reggio Approach to Early Education” with P. Biroli, D. Del Boca, J. J. Heckman, L. P. Heckman, S. Kuperman, S. Moktan, C. D. Pronzato, A. L. Ziff, *Research in Economics*, 72(1): 1-32 (2018).

## INVITED CONFERENCE PRESENTATION

2022: Annual Meeting of the Society of Economics of the Household (UCL), Leuven Summer Event – Labor/Family Economics (KU Leuven)  
2021: Asian and Australasian Society of Labour Economics Annual Conference (Peking University, Virtual)

## RELEVANT WORK EXPERIENCE

Full-Time Research Professional at the Center for the Economics of Human Development, University of Chicago, 2015-2017 (Director: James J. Heckman)

## TEACHING EXPERIENCE

TA for Intermediate Microeconomics (Dr. Wouter Vergote), Columbia University, Fall 2019  
TA for Intermediate Microeconomics (Prof. Caterina Musatti), Columbia University, Spring 2020

## HONORS AND AWARDS

Dissertation Fellowship, Columbia University, 2022-2023  
Kwanjeong Education Foundation Fellowship, 2017-2022  
Dean's Fellowship, Columbia University, 2017-2022  
Young-Iob Chung Fellowship, Columbia University, 2019-2020  
First Place in the Econometrics Game, Becker Friedman Institute, University of Chicago, 2015

## UNIVERSITY/DEPARTMENT SERVICE

Student organizer for Applied Microeconomic Theory Colloquium, Columbia University, 2021-2022

## SKILLS

*Computer Skills:* R, Matlab, Stata, Julia, Python

*Languages:* Korean (native), English (fluent)

## PERSONAL

*Citizenship:* South Korea

Department of Economics,  
Columbia University,  
420 West 118th Street,  
New York, NY, 10027, USA

[ol2193@columbia.edu](mailto:ol2193@columbia.edu)  
<https://www.ou-liu.com/>  
(+1) 732-429-0470

## PLACEMENT CO-CHAIRS

Sandra E. Black

[sblack@columbia.edu](mailto:sblack@columbia.edu)

Suresh Naidu

[sn2430@columbia.edu](mailto:sn2430@columbia.edu)

## PLACEMENT ADMINISTRATOR

Amy Devine

[aed2152@columbia.edu](mailto:aed2152@columbia.edu), (+1) 212-854-6881

## PERSONAL INFORMATION

Gender: Female

Citizenship: Chinese citizen; US Permanent Residency expected by Jan, 2023

## RESEARCH INTERESTS

Primary Fields: Macroeconomics – Innovation, Growth and Firm Dynamics

Secondary Fields: Finance, Inequality, Entrepreneurship

## EDUCATION

Ph.D. in Economics, Columbia University	2016 – 2023 (Expected)
M.A. in Economics, Columbia University	2015 – 2016
Ph.D. in Cell and Developmental Biology, Rutgers University	2009 – 2015
B.S. in Pharmaceutical Science, Peking University	2005 – 2009

## JOB MARKET PAPER

**The Dynamics at the Upper Tail of Firm Size Distribution: the Role of Acquisition and Innovation [Latest Version]**

*Abstract:* I construct a new dataset on the dynamic ownership of firms by tracking the merger and acquisition (M&A) transactions among public and private acquirers and targets. I then match the dynamic ownership of firms to the firm-level patent data from USPTO to obtain novel data on the dynamic ownership of patents by firms. Using this data, I document the rising importance of acquisitions of private firms in contributing to the growth of the acquirers. My empirical analyses

reveal three channels through which firms grow via acquisition: (i) acquirers develop more innovations based on the patents of their target firms after acquisition; (ii) acquirers produce more patents after making their first acquisition in a technology class – the expansion is larger if the acquirers have low initial patenting activities in that technology class (iii) acquisitions can shield acquirers' innovation from becoming technologically obsolete. I then examine the implications of these innovation mechanisms on the dynamics of firms at the upper tail of firm size distribution using a range of firm random growth models. I find that acquisitions give rise to higher inequality among top firms (i.e., superstar firms are even bigger) in the stationary firm size distribution. In terms of the transition dynamics, when faced with negative creative destruction shocks, acquisitions by the top firms can lead to a faster rise of inequality in the upper tail of the firm size distribution.

## OTHER WORKING PAPERS

### **Firm Dynamics and Innovation: Evidence from Decomposing Top Sales Shares** [\[PDF\]](#) (EEA Conference 2022 – Firms and Technology Program)

*Abstract:* What do changes in top sales shares signal about changes in firm dynamics? I use an accounting decomposition to identify two sources of top sales shares growth: (i) incumbent top firms grow bigger; (ii) new top firms replace old top firms. Over the 1950-2019 period, incumbent top firms contribute about 3.5 times as much as new top firms to the growth of the sales shares accrued to the top 0.01% firms in the US economy. Using the results from this empirical decomposition, I then build a model to estimate a firm dynamics process in which firms grow in response to own innovation shocks and shrink at the impact of creative destruction shocks. The existence of a channel through which own innovation can lead to higher top sales shares growth is supported by the data. My estimation reveals a surge in the rate of own innovation since 1980 and a decline in the rate of creative destruction over time.

### **Employment during the COVID-19 Pandemic: Collapse and Early Recovery** with [Tam Mai](#) [\[PDF\]](#)

*Abstract:* We use monthly Current Population Survey data to document employment changes during the COVID-19 pandemic at the occupation, industry, and metropolitan statistical area (MSA) levels. Over March-April 2020, jobs losses are larger for occupations with higher physical proximity or lower work-from-home feasibility, especially for lower-paying occupations. Non-essential industries also see greater declines in employment. Such occupational and industrial susceptibility to COVID-19 contributes to the variation in employment changes across MSAs:

Employment shrinks more for MSAs with larger pre-crisis fractions of workers employed in occupations with higher infection risk. Over April-June 2020, occupations and industries that are hit harder recoup more jobs, but the recovery is only partial. Moreover, the gains are concentrated in lower-paying occupations and a few industries. Taken together, these abrupt changes in employment following the COVID-19 outbreak are unprecedented and potentially have long-term implications for occupational inequality and regional disparity.

### **Income Inequality and Mortgage Credit Allocation [\[PDF\]](#)**

*Abstract:* This paper studies how income inequality at the Metropolitan Statistical Area (MSA) level affect mortgage credit allocation along the income distribution of households *within* MSAs. I find that MSA-level income inequality has heterogeneous effect on household-level mortgage debt accumulation. Two measures of inequality, the ratio of 95th-to-80th percentile (p95/p80) and the ratio of 80th-to-50th percentile (p80/p50) of household income, exhibit significant impact. With respect to credit approval along the income distribution, high p95/p80 inequality works more in favor of low-income households while high p80/p50 inequality benefits high-income households more.

### **PUBLICATIONS (IN BIOMEDICAL SCIENCE, FROM PREVIOUS PHD STUDY)**

1. Shi, A., **Liu, O.**, Koenig, S., Banerjee, R., Chen, C. C. H., Eimer, S., Grant, B. D. (2012). RAB-10-GTPase-mediated regulation of endosomal phosphatidylinositol-4, 5-bisphosphate. *Proceedings of the National Academy of Sciences*, 109(35), E2306-E2315. [\[PDF\]](#)
2. Sun, L., **Liu, O.**, Desai, J., Karbassi, F., Sylvain, M. A., Shi, A., Grant, B. D. (2012). CED-10/Rac1 regulates endocytic recycling through the RAB-5 GAP TBC-2. *PLoS genetics*, 8(7), e1002785. [\[PDF\]](#)
3. **Liu, O.**, Grant, B. D. (2015). Basolateral endocytic recycling requires RAB-10 and AMPH-1 mediated recruitment of RAB-5 GAP TBC-2 to endosomes. *PLoS genetics*, 11(9), e1005514. [\[PDF\]](#)
4. Wang, P., Liu, H., Wang, Y., **Liu, O.**, Zhang, J., Gleason, A., Grant, B. D. (2016). RAB-10 promotes EHBP-1 bridging of filamentous actin and tubular recycling endosomes. *PLoS genetics*, 12(6), e1006093. [\[PDF\]](#)
5. (In Chinese.) Li, X. T., Yuan, Y. L., Xia, Y. Y., Yu, B. Z., Zhang, T. J., **Liu, O.**, Zhan, S. Y. (2009). Genetic polymorphism of glutathione-S-transferase M1 and T1: a systematic review in Chinese population and a pilot study in smear-positive pulmonary

tuberculosis cases of Jilin province. *Chinese Journal of Epidemiology*, 30(5):502-6.  
[\[PDF\]](#)

## TEACHING EXPERIENCE

### TEACHING FELLOW

#### **Columbia University** [\[Evaluation\]](#)

Principles of Economics (Undergraduate) Fall 2022

Instructor: Miguel Urquiola

Behavioral Finance (Undergraduate) Spring 2022

Instructor: Harrison Hong

Finance and the Real Economy (Undergraduate) Spring 2019, Spring 2020

Instructor: Matthieu Gomez

Corporate Finance (Undergraduate) Fall 2018, Fall 2019, Fall 2020

Instructors: Olivier Darmouni and Ethan Namvar

Intermediate Macroeconomics (Undergraduate) Fall 2017, Spring 2018

Instructors: Irasema Alonso and Jón Steinsson

#### **Rutgers University** [\[Evaluation\]](#)

Genetics (Undergraduate) Fall 2013, Spring 2014, Fall 2014, Spring 2015

### INSTRUCTOR

#### **Institute of Industrial Economics of Chinese Academy of Social Sciences**

Macroeconomics (1st-year PhD level, equiv. 1.5 credit minicourse) Summer 2018

### LAB MENTOR

#### **Rutgers University**

Mentored pre-med, master and PhD students during their lab rotations 2011-2015

## FELLOWSHIPS

Dissertation Fellowship, 2022-2023, Columbia University

Dean's Fellowship, 2016 – 2021, Columbia University

Anne B. and James B. Leathem Fellowship, Summer 2011 – 2014, Rutgers University  
Excellence Fellowship, 2009 – 2010, Rutgers University

## REFERENCES

### **Martin Uribe (co-advisor)**

Professor  
Columbia University  
(+1) 212-851-4008  
mu2166@columbia.edu

### **Matthieu Gomez (co-advisor)**

Assistant Professor  
Columbia University  
(+1) 212-854-1677  
mg3901@columbia.edu

### **Émilien Gouin-Bonenfant**

Assistant Professor  
Columbia University  
(+1) 212-854-5488  
eg3041@columbia.edu

## MISCELLANEOUS INFORMATION

### LANGUAGES:

Chinese (native)      English (fluent)      French (intermediate)      German(basic)

- French: Diplôme de Français professionnel-Affaires B2 awarded by the Paris Chamber of Commerce
- German: Goethe-Zertifikat B1

PROGRAMMING: Python, Stata, Matlab

SPORT: player on Table Tennis women's team at Peking University (2005 – 2008) and at Columbia University (2016 – 2017)

Columbia University, Department of Economics  
420 West 118th Street  
New York, NY 10027, USA

<https://www.haarismateen.com>  
[hm2692@columbia.edu](mailto:hm2692@columbia.edu)  
(+1)9173627325

## RESEARCH INTERESTS

---

Economics of Climate Change, Financial Economics, Public Finance, Political Economy

## REFERENCES

---

**Harrison Hong**  
Columbia University  
[hh2679@columbia.edu](mailto:hh2679@columbia.edu)

**José A. Scheinkman**  
Columbia University  
[js3317@columbia.edu](mailto:js3317@columbia.edu)

**Joseph E. Stiglitz**  
Columbia University  
[jes322@gsb.columbia.edu](mailto:jes322@gsb.columbia.edu)

## EDUCATION

---

Ph.D. in Economics, Columbia University, NY, USA	2016-23
<i>en route</i> : M.A. in Economics (2017). M.Phil. in Economics (2018)	(expected)
M.B.A., Indian Institute of Management, Ahmedabad, India.	2014-16
B.Tech. Chemical Engineering, Indian Institute of Technology, Roorkee, India.	2008-12

## RESEARCH PAPERS

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### PUBLICATIONS

- **Stability of oil-in-water macro-emulsion with anionic surfactant: Effect of electrolytes and temperature**, with Partha Kundu, Akanksha Agrawal and Indra M Mishra, *Chemical Engineering Science*, 2013.

### WORKING PAPERS

- **Hurricanes, Mitigation and Capital Formation**

*Abstract*: A number of recent papers have documented damage from climate change events using panel regression methods. However, there is scarce evidence on the mitigation response of governments and firms. Using hand collected and web scraped statutory property tax rate data in the U.S., I find that local governments respond to hurricanes by raising tax rates. The hike in tax rates is a 1.5% increase over existing rates and remains persistent for 3-4 years after hurricane impact. Using a novel data set of firm facilities, I find that firms initially decrease investment in the quarter following a disaster and increase it by the second year after impact. A one standard deviation increase in exposure leads to an increase in second year quarterly investment that is 11% of average quarterly capital expenditure. Both government and firm responses increase by a multiple of 1.5 and 3 times respectively if there are hurricanes in consecutive years. I interpret these findings in the light of recent general equilibrium models with disaster risk where the tax rate is a sufficient statistic for mitigation and firms response depends on the extent of government response.

- **Local Governments' Response to Fiscal Shocks: Evidence from Connecticut**, with Oliver Giesecke. *Best Student Paper (Honorable Mention) at the 15th North American Meeting of the Urban Economics Association 2021.*



*Abstract:* The deteriorating fiscal position of municipalities across the United States raises the question which adjustment mechanisms municipalities have at their disposal and what their effects are. We utilize quasi-experimental variation in the year of property tax assessments in the state of Connecticut to provide causal evidence of the fiscal adjustment following a large decline in property values after the Great Financial Crisis. We find that local governments adjust tax rates to maintain stable tax revenues; there is no change in public employment levels and limited adjustments of public services. Our micro data on people's location further allows us to causally estimate the migration elasticity to a change in property tax rates. We find evidence of inter-state migration in response to an increase in property tax rates; and no statistically significant response of intra-state migration. Detailed property and location choice data reveal the elasticity of migration with regard to the property tax bill. An increase in the property tax bill by ten percent leads to an average increase in the migration propensity by about 1.5%.

- **Local Government Debt Valuation**, with Oliver Giesecke and Marcelo Sena.

*Abstract:* We construct a novel data set on the fiscal position of municipalities in the United States and document a secular decline in their financial health. Our data combines financial data from the Annual Comprehensive Financial Reports (ACFRs) of municipalities along with Census data of their revenue and expenditure cash flows. We find that a large share of municipalities operate with a negative net position—akin to a negative book equity position in the corporate context. We find that most of the decline originates from the accumulation of legacy obligations, i.e., pensions and other post-employment benefits (OPEBs); this is recognized by municipal bond markets through higher credit spreads. While accounting values from the ACFRs are informative, they are based on book valuations which potentially convey limited information about the economic value of assets and liabilities. Thus, we turn to the market valuation of local governments' equity by estimating an SDF that matches the valuation of a wide range of assets in the economy to prices future tax and expenditure claims. Using market prices for tax and expenditure claims, and market valuations of liability positions we find that the market values of equity are highly correlated with the book values. The negative equity position—in terms of book and market values—for some local governments suggests the presence of implicit insurance by the state and federal governments.

- **Income Contingent Loans as an Unemployment Benefit**, with Joseph E. Stiglitz and Jungyoll Yun, NBER Working Paper 29198.

*Abstract:* Imperfections in risk and capital markets imply that individuals who lose jobs suffer from imperfect smoothing of consumption across states and times. Compared to the first best, there will be too little search. Optimal unemployment programs, which balance the marginal benefit of consumption smoothing vs. the marginal cost of the insurance externality, increase welfare and may even increase GDP. Our analytical results suggest that welfare is higher if the unemployment benefits program includes income-contingent unemployment loans (ICL), where the amount repaid depends on the individual's future income. Such loans can be financed by a risk premium imposed on the unemployed who avail themselves of the loans, and partially substitute for unemployment insurance (UI) benefits. Optimal unemployment benefits programs (UB) with ICL do a better job of smoothing consumption across states and time, and in particular total benefits when unemployed increase. We analyze how changes in key parameters, such as the degree of risk aversion and the nature of post-employment work, affect the design of the optimal UB program and the magnitude of the incremental benefits from including income-contingent loans.

- **Repricing Avalanches in the Billion Prices Data**, with Laura Leal, Makoto Nirei and José A. Scheinkman, NBER Working Paper 29236.

*Abstract:* Nirei and Scheinkman (2021) proposed an equilibrium model of price adjustments with menu-costs with a finite number of firms and derived a “reproduction number” for repricing and a limit functional form for the distribution of the number of simultaneously price-adjusting firms. We show that the distribution of price-changes in data from the Billion Prices Project is well fitted by this functional form and exhibits a reproduction number that is close to unity, indicating that complementarity in price-changes plays a major role in repricings.

- **The Microstructure of the U.S. Housing Market: Evidence from Millions of Bargaining Interactions**, with Franklin Qian and Ye Zhang.

*Abstract:* We study the microstructure of the U.S. housing market using a novel data set comprising housing search and bargaining behavior for millions of interactions between sellers and buyers. We first establish a number of stylized facts, the most prominent being a nearly 50–50 split between houses that sold below final listing price and those that sold above final listing price. Second, we compare observed behavior with predictions from a large theoretical housing literature. Many predictions on the relationship between sales price, time on the market, listing price and atypicality are borne out in the data. However, existing models do not adequately explain the spread of the sales price around the final listing price. Using a modeling strategy that treats listing price changes as revisions of expectations about the sales price, we find sellers under-react to information shocks in estimating the sales price. Last, we find that the bargaining outcomes are influenced by previously undocumented buyers’ bid characteristics, e.g., financing contingencies and escalation clauses, that signal a buyer’s ability to complete or expedite the transaction. This suggests an important role for buyer bid characteristics, which are not explained by existing theories, in affecting bargaining power and surplus allocation in bilateral bargaining in housing transactions.

## WORK IN PROGRESS

- Climate Treaties with Abatement Technology Discovery (with Prajit Dutta)
- Conflicting Clauses in Contracts
- COVID-19 Infections Absent Residential Segregation (with Oliver Giesecke, Harrison Hong, Jeffrey Kubik, Neng Wang and Jinqiang Yang)
- Initial Public Offerings and Expectations in the Housing Market (with Franklin Qian and Ye Zhang)
- Something Biased This Way Comes: The Effect of Media on Local Elections in US (with Dario Romero)

## WORK AND TEACHING EXPERIENCE

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### RESEARCH FELLOW

#### Columbia University

Joseph E. Stiglitz  
 José A. Scheinkman  
 Andrea Prat

September 2017- August 2021  
 January 2020 - August 2021  
 May 2018 - August 2018

### TEACHING FELLOW

#### Columbia University

Financial Crises  
 Instructor: José A. Scheinkman  
 Behavioral Finance  
 Instructor: Harrison Hong

Fall 2018  
 Spring 2019

### BEFORE ACADEMIA

#### Boston Consulting Group

Summer Intern  
 Received offer to join.

Summer 2015

#### ITC Limited

Head Engineer, Primary Manufacturing Maintenance

2012 - 2014

## RESEARCH GRANTS AND ACADEMIC AWARDS

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### RESEARCH GRANTS & FELLOWSHIPS

Angell Fellowship  
 Columbia University  
 Dissertation Fellowship  
 Department of Economics, Columbia University

2020

2021

## AWARDS

Honorable Mention - Best Student Paper	2021
Urban Economics Association 15th Meeting	
Dean's Fellow (Ph.D. in Economics)	2016-2021
Columbia University	
Institute Scholar (summa cum laude equivalent)	2016
Indian Institute of Management, Ahmedabad	

## OTHER INFORMATION

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### LANGUAGES

English (Native)	Hindi (Native)	Urdu (Advanced)
French (Beginner)		

### PROGRAMMING SKILLS

Python, ArcGIS, QGIS, MATLAB, C++, R, STATA

### NATIONALITY

India

# ANDREW R. OLENSKI

Columbia University  
Department of Economics  
420 West 118th Street  
New York, NY 10027

[andrew.olenski@columbia.edu](mailto:andrew.olenski@columbia.edu)  
[www.andrewolenski.com](http://www.andrewolenski.com)

Placement Chairs: Suresh Naidu [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Sandra Black [sb4338@columbia.edu](mailto:sb4338@columbia.edu)  
Placement Assistant: Amy Devine [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## REFERENCES

**Pietro Tebaldi** (Co-Sponsor)  
Assistant Professor  
Department of Economics  
Columbia University  
[pt2571@columbia.edu](mailto:pt2571@columbia.edu)

**Ashley Swanson** (Co-Sponsor)  
Associate Professor  
Department of Economics  
University of Wisconsin – Madison  
[ashley.swanson@wisc.edu](mailto:ashley.swanson@wisc.edu)

**Gautam Gowrisankaran**  
Professor  
Department of Economics  
Columbia University  
[gg2840@columbia.edu](mailto:gg2840@columbia.edu)

**Adam Sacarny**  
Assistant Professor  
Department of Health Policy & Management  
Columbia University Mailman School of Public Health  
[ajs2102@columbia.edu](mailto:ajs2102@columbia.edu)

## RESEARCH INTERESTS

Applied microeconomics, industrial organization, health economics

## EDUCATION

**Columbia University**, Ph.D. Economics, 2023 (expected)  
Fields: industrial organization, public finance

**George Washington University**, B.S. Economics, 2015 *summa cum laude*

## JOB MARKET PAPER

### Reallocation and the (In)efficiency of Exit in the U.S. Nursing Home Industry

*Abstract:* I examine the role of firm exits in generating welfare-improving reallocations. Using administrative data on the universe of nursing home patients, I estimate the mortality effects of 1,109 nursing home closures for current residents using a matched difference-in-differences approach. I find that displaced residents face a short-run 15.1% relative increase in their mortality risk. This sharp increase is offset by long-run survival improvements, such that the cumulative effect inclusive of the initial spike is a net decline in mortality risk. I document evidence that this is driven by reallocation to higher quality providers, measured by deficiency inspections. These survival gains accrue only to residents in competitive nursing home markets. Residents in areas with limited alternatives to long-term care experience no long-run survival improvement. To examine the policy relevance of these findings, I estimate a dynamic model of the nursing home industry with endogenous exit. Using the model, I conduct two reimbursement policy experiments to avert nursing home closures. A universal 10% increase in the Medicaid rate decreases the frequency of closures, but has the consequence that some low-quality providers remain open in competitive areas. In contrast, a targeted subsidy for facilities in areas with limited access to care improves overall mortality by averting the costliest nursing home closures.

## WORKING PAPERS

1. **Olenski A**, Sacher S. “Estimating Nursing Home Quality with Selection.” Revise and resubmit, *Review of Economics and Statistics*.

*Abstract:* We estimate a Bayesian model of nursing home quality using variational inference. We then conduct three exercises. First, we examine the correlates of quality, finding that public report cards have near-zero correlation. Second, we show that higher quality nursing homes fared better during the pandemic: a one standard deviation increase in quality corresponds to 2.4% fewer Covid-19 cases. Finally, we show that a 10% increase in the Medicaid reimbursement rate raises quality, leading to a 1.85 percentage point increase in 90-day survival. Such a reform would be highly cost-effective even under conservative estimates of the quality-adjusted statistical value of life.

## PEER-REVIEWED PUBLICATIONS

### Research in Economics

1. Barnett M, **Olenski A**, Sacarny A. “Common Practice: Spillovers from Medicare on Private Health Care,” NBER Working Paper No. 27270. Forthcoming at *American Economic Journal: Economic Policy*.

### Research in Health Policy

1. Jena AB, Khullar D, Ho O, **Olenski A**, Blumenthal D. “Sex differences in academic rank in U.S. medical schools in 2014,” *Journal of the American Medical Association (JAMA)* 314(11), pp. 1149-1158, 2015.
2. **Olenski A**, Abola M, Jena AB. “Do heads of government age more quickly? An observational study comparing mortality between elected leaders and runners-up in national elections of 17 countries,” *British Medical Journal (BMJ)* 351:h6424, 2015.
3. Jena AB, **Olenski A**, Blumenthal D. “Sex differences in physician salary in U.S. public medical schools,” *JAMA: Internal Medicine* 176(9), pp. 1294-1304, 2016.
4. Barnett M, **Olenski A**, Jena AB. “Opioid-prescribing patterns of emergency physicians and risk of long-term use,” *New England Journal of Medicine* 376(7), pp. 663-673, 2017.  
– Best Published Research Paper of the Year Award, *Society of General Internal Medicine*, 2018
5. Barnett M, **Olenski A**, Jena AB. “Patient mortality during unannounced accreditation surveys at US hospitals,” *JAMA: Internal Medicine* 177(5), pp. 1-9, 2017.
6. Jena AB, Mann NC, Wedlund LN, **Olenski A**. “Delays in emergency care and mortality during major U.S. marathons,” *New England Journal of Medicine* 376(15), pp. 1441-1450, 2017.
7. Khullar D, Blumenthal D, **Olenski A**, Jena AB. “U.S. immigration policy and American medical research - the scientific contributions of foreign medical graduates,” *Annals of Internal Medicine* 167(7), pp. 584-586, 2017.
8. Blumenthal DM, **Olenski A**, Tsugawa Y, Jena AB. “Association between treatment by locum tenens internal medicine physicians and 30-day mortality among hospitalized Medicare beneficiaries,” *Journal of the American Medical Association (JAMA)* 318(21), pp. 2119-2129, 2017.
9. Jena AB, **Olenski A**, Molitor D, Miller N. “Association between rainfall and diagnoses of joint or back pain: retrospective claims analysis,” *British Medical Journal (BMJ)* 359:j5326, 2017.
10. Blumenthal D, **Olenski A**, Yeh R, DeFaria-Yeh D, Sarma A, Stefanescu-Schmidt A, Wood M, Jena AB. “Sex differences in academic rank among cardiologists at U.S. medical schools in 2014,” *Circulation* 135(6), pp. 506-517, 2017.

11. Jena AB, **Olenski A**. “Reductions in firearm injuries during NRA annual conventions,” *New England Journal of Medicine* 378:866-867, 2018.
12. Jena AB, **Olenski A**, Blumenthal DM, Yeh RW, Goldman DP, Romley J. “Acute myocardial infarction mortality during dates of national interventional cardiology meetings,” *Journal of the American Heart Association* 117:e008230, 2018.
13. Jena AB, **Olenski A**, Khullar D, Bonica A, Rosenthal H. “Physicians’ political preferences and the delivery of end of life care in the United States,” *British Medical Journal (BMJ)* 361:k1161, 2018.
14. Barnett M, **Olenski A**, Thygeson M, Ishisaka D, Wong S, Jena AB, Mehrotra A. “A Health Plan’s Formulary Led to Reduced Use of Extended-Release Opioids, But Did Not Lower Overall Opioid Use,” *Health Affairs* 37(9), pp. 1509-1516, 2018.
15. Sacarny A, **Olenski A**, Barnett M. “Association of Quetiapine Overuse Letters With Prescribing by Physician Peers of Targeted Recipients,” *JAMA Psychiatry* 76(6), pp. E1-2, 2019.
16. **Olenski A**, Coussens S, Zimmerman A, Jena AB. “Behavioral Heuristics in Coronary Artery Bypass Graft Surgery,” *New England Journal of Medicine* 382:8, 2020.
17. Ly D, Essien U, **Olenski A**, Jena AB. “Affirmative Action Bans and Enrollment of Students from Underrepresented Racial and Ethnic Groups in U.S. Public Medical Schools,” *Annals of Internal Medicine*, 2022.

## OTHER WRITING

1. “Trump’s immigration order could make it harder to find a psychiatrist or pediatrician” *FiveThirtyEight*, 02/03/2017.
2. “When clinicians know they’re being watched, patients fare better” *Harvard Business Review*, 03/24/2017.
3. “When roads are closed for marathons, more elderly people die of heart attacks” *Harvard Business Review*, 04/12/2017.
4. “Substitute doctors are becoming more common. What do we know about their quality of care?” *Harvard Business Review*, 12/11/2017.
5. “How common mental shortcuts can cause major physician errors” *The New York Times*, 02/20/2020.

## FELLOWSHIPS, HONORS, AND AWARDS

Best Abstract Award, Health Economics Group, AcademyHealth Annual Research Meeting 2022  
 – For *Reallocation and the (In)efficiency of Exit in the U.S. Nursing Home Industry*

Vickrey Prize for Best Third Year Paper, Runner-up, 2020

Harriss Prize for Best Second Year Paper, Runner-up, 2019

NBER Health Economics Bootcamp, 2019

Outstanding Reviewer Award, *Annals of Internal Medicine*, 2018, 2019

National Science Foundation Graduate Research Fellowship, 2018

Dean’s Fellowship, Department of Economics, Columbia University, 2017

Special Honors in Economics, Department of Economics, George Washington University, 2015

**PROFESSIONAL SERVICE**

Referee for *Econometrica*, *Journal of Human Resources*, *Annals of Internal Medicine*, *Academic Emergency Medicine*

**TEACHING ASSISTANT EXPERIENCE**

Industrial Organization (undergraduate), Econometrics (undergraduate)

**PRESENTATIONS**

2022: American Society of Health Economists

**RELEVANT POSITIONS**

Research Assistant, Adam Sacarny, Ph.D.  
Department of Health Policy and Management, Columbia University, 2018-2019

Research Assistant, Anupam Bapu Jena, M.D./Ph.D.  
Department of Health Care Policy, Harvard University, 2015-2017

Research Assistant, Graciela Kaminsky, Ph.D.  
Department of Economics, George Washington University, 2014-2015

Research Intern, Matthew Fiedler, Ph.D.  
Council of Economic Advisers, The White House, 2013-2014

**SELECTED MEDIA COVERAGE**

1. Do heads of government age more quickly? Observational study comparing mortality between elected leaders and runners-up in national elections of 17 countries, *The BMJ* 2015. Reported by New York Times, Washington Post, STAT, Reuters, Associated Press, The Atlantic, NPR, Vox.
2. Sex differences in academic rank in US medical schools in 2014, *JAMA* 2015. Reported by NPR, Reuters, US News and World Report.
3. Sex differences in physician salary in U.S. public medical schools, *JAMA: Internal Medicine* 2016. Reported by New York Times, Washington Post, Associated Press, Bloomberg News, Reuters, TIME.
4. Opioid-Prescribing Patterns of Emergency Physicians and Risk of Long-Term Use, *New England Journal of Medicine* 2017. Reported by New York Times, Washington Post, Chicago Tribune, Philadelphia Inquirer, Associated Press, Reuters, NPR, STAT, Vox, TIME.
5. Patient mortality during unannounced accreditation surveys at US hospitals, *JAMA: Internal Medicine* 2017. Reported by New York Times, Reuters, NPR, STAT.
6. Delays in emergency care and mortality during major U.S. marathons, *New England Journal of Medicine* 2017. Reported by New York Times, Wall Street Journal, CNN, Reuters, Associated Press, The Atlantic, NPR, STAT, Boston Globe, Philadelphia Inquirer, NBC, USA Today, TIME.
7. Association Between Treatment by Locum Tenens Internal Medicine Physicians and 30-Day Mortality Among Hospitalized Medicare Beneficiaries, *JAMA* 2017. Reported by U.S. News and World Report, Reuters, STAT News.
8. Reductions in firearm injuries during NRA annual conventions, *New England Journal of Medicine* 2018. Reported by Scientific American, TIME, Los Angeles Times, Boston Globe, Vox, ABC, New York Magazine, Gizmodo, CNN, Philadelphia Inquirer, Bloomberg Business, US News and World Report, Reuters.
9. Behavioral heuristics in coronary artery bypass graft surgery, *New England Journal of Medicine* 2020. Reported by New York Times, STAT, Forbes, Associated Press.

**MISCELLANEOUS**

U.S. Citizen



# ROMAN GABRIEL RIVERA

September 2022

Department of Economics  
Columbia University  
New York, NY 10027

Phone: (630) 335-7420  
Email: [r.g.rivera@columbia.edu](mailto:r.g.rivera@columbia.edu)  
Website | [Google Scholar](#)

Placement Chair: Sandra Black, [sb4338@columbia.edu](mailto:sb4338@columbia.edu)  
Placement Chair: Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Placement Assistant: Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu), (212) 854-6881

**Fields:** Labor, Economics of Crime

## References

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Sandra E. Black	W. Bentley MacLeod	Sokbae (Simon) Lee
Professor of Economics	Sami Mnaymneh Professor of Economics	Professor of Economics
Columbia University	Columbia University	Columbia University
<a href="mailto:sb4338@columbia.edu">sb4338@columbia.edu</a>	<a href="mailto:bentley.macleod@columbia.edu">bentley.macleod@columbia.edu</a>	<a href="mailto:sl3841@columbia.edu">sl3841@columbia.edu</a>
(212) 854-3676	(310) 571-5083	(212) 853-1853

## Education

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2018-	Columbia University Ph.D. in Economics, expected May 2023
2022-	The University of Chicago Booth School of Business Visiting Ph.D. Student
2017	The University of Chicago Master of Public Policy (Honors), June 2017
2016	The University of Chicago Bachelor of Arts in Economics, June 2016

## Job Market Paper

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“Release, Detain, or Surveil? The Effect of Electronic Monitoring on Defendant Outcomes”

**Abstract:** This paper studies the effect of pretrial electronic monitoring (EM) as an alternative to both pretrial release and detention (jail) in Cook County, Illinois. EM often involves a defendant wearing an electronic ankle bracelet that tracks their movement and aims to deter pretrial misconduct. Using the quasi-random assignment of bond court judges, I estimate the effect of EM vs. release and EM vs. detention on pretrial misconduct, case outcomes, and future recidivism. I develop a novel method for the semi-parametric estimation of marginal treatment effects in ordered choice environments, allowing me to construct relevant treatment effects. Relative to release, EM increases new cases pretrial due to bond violations while reducing new cases for low-level crimes and failures to appear in court. Relative to detention, EM increases low-level pretrial misconduct but improves defendant case outcomes and reduces cost-weighted future recidivism. Finally, I bound EM’s crime-reduction effect; I find that while EM is likely an effective substitute for pretrial detention, it is not clear that EM prevents enough high-cost crime to justify its use relative to release, particularly for low-level defendants.

## Publications and Accepted Papers

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“The Black-White Recognition Gap in Award Nominations”

[Accepted at *Journal of Labor Economics*]

(with Nayoung Rim, Andrea Kiss, and Bocar Ba)

“Peer Effects in Police Use of Force”

[Conditionally Accepted at *American Economic Journal: Economic Policy*]

(with Justin Holz and Bocar Ba)

“The Role of Officer Race and Gender in Police-Civilian Interactions in Chicago”, *Science* 2021, Vol. 371  
(with Bocar Ba, Dean Knox, Jonathan Mummolo)

Coverage: CNN, The Guardian, Business Insider, +200 others

“Disparities in Police Award Nominations: Evidence from Chicago”, *AEA Papers and Proceedings* 2020,  
Vol. 110: 447-51

(with Nayoung Rim and Bocar Ba)

## Working Papers

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“The Effect of Minority Peers on Future Arrest Quantity and Quality”

[Revise and Resubmit at *American Economic Journal: Applied Economics*]

“The Effect of Police Oversight on Crime and Allegations of Misconduct: Evidence from Chicago”

[Revise and Resubmit at *The Review of Economics and Statistics*]

(with Bocar Ba)

Coverage: Vox, Niskanen Center

“Who are the Police? Descriptive Representation in the Coercive Arm of Government”

[Revise and Resubmit at *American Political Science Review*]

(with Bocar Ba, Jacob Kaplan, Dean Knox, Mayya Komisarchik, Rachel Mariman, Jonathan Mummolo,  
and Michele Torres)

“Police Officer Assignment and Neighborhood Crime”

[NBER Working Paper No. 29243]

(with Bocar Ba, Patrick Bayer, Nayoung Rim, and Modibo Sidibe)

Coverage: City Journal

## Works in Progress

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“Deterrence, Income Support and Optimal Crime Policy”

(with W. Bentley MacLeod)

“Who ‘Benefits’ from Bail Reform? Evidence from Chicago”

(with Bocar Ba, Patrick Bayer, Jenny Jiao, and Nayoung Rim)

“Community Ties and Police Use of Force”

(with Bocar Ba and Nayoung Rim)

“Good Intentions but Bad Policy?”

(with W. Bentley MacLeod)

## Honors, Fellowships, Awards, and Grants

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2022-2023	Ford Foundation Dissertation Fellowship (The National Academies of Sciences, Engineering, and Medicine)
2022	Program for Economic Research Graduate Student Summer Fellowship (Columbia University)
2022	Graduate Student Workshop (WEAI Annual Conference)
2021-2022	Lewis A. Sanders Endowed Fellowship in Economics (Columbia University, GSAS)
2021	Wueller 4th Year Pre-Dissertation Award, Winner (Columbia University, Economics Department)
2021	Best Student Paper (Urban Economics Association 2021)
2021	Program for Economic Research Graduate Student Summer Fellowship (Columbia University)
2020	Harriss 2nd Year Paper Award, Winner (Columbia University, Economics Department)
2020	Russell Sage Foundation Pipeline Diversity Grant (PIs: Bocar Ba and Nayoung Rim)
2018	Provost Diversity Fellowship (Columbia University, GSAS)

## Conferences and Presentations

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2022	Texas Economics of Crime Workshop, Conference on Empirical Legal Studies, Society of Labor Economists, Western Economics Association International, CHEPS/SDSU, Dartmouth, APPAM, CEP/LSE Crime Seminar
2021	CIVICA, Urban Economics Association (North America), HBS Rising Scholars, Southern Economics Association
2020	APPAM, Southern Economics Association

## Media and Panels

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2021	Panelist, <i>Obtaining, Organizing, and Opening Police Misconduct Data Panel</i> , Ford Foundation
2020	Panelist, <i>Community Dialogue on Police Accountability</i> , HPKCC
2020	“Police think they can get away with anything. That’s because they usually do.”, <i>Washington Post</i> , (with Bocar Ba)

## Employment and Other Positions

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2020-2021	W. Bentley MacLeod, Research Assistant, Columbia University
2020-2021	Diversity Initiative Committee, Student Liaison, Columbia University
2016-2018	Robert J. LaLonde, Research Assistant, University of Chicago
2017-2018	Amy Claessens, Research Assistant, University of Chicago
2017-2018	Invisible Institute, Data Scientist

## Teaching

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Spring 2022 Sokbae (Simon) Lee, Introduction to Econometrics (Undergrad), Teaching Assistant, Columbia University  
Spring 2020 Nima Haghpanah, Game Theory (Undergrad), Teaching Assistant, Columbia University  
Fall 2019 Brendan O’Flaherty, Economics of Race (Undergrad), Teaching Assistant, Columbia University

## Referee Service

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*Quarterly Journal of Economics* (3), *American Economic Journal: Economic Policy* (1), *Journal of Labor Economics* (1), *Journal of Economic Behavior and Organization* (1), *American Law and Economics Review* (1), *Journal of Quantitative Criminology* (1)

## Software

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Python, R, Julia, Stata, Matlab, ArcGIS, L<sup>A</sup>T<sub>E</sub>X

## Personal

---

Citizenship: USA

# Shogo Sakabe

## CONTACT INFO

Email: [s.sakabe@columbia.edu](mailto:s.sakabe@columbia.edu)  
Website: <https://shogosakabe.github.io/>

Department of Economics  
Columbia University  
420 West 118th St.  
New York, NY 10027

Placement Chairs: Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu), Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Placement Assistant: Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## Education

**Columbia University**, New York, NY  
Ph.D., Economics, 2023 (expected)  
M.Phil., Economics, 2019  
M.A., Economics, 2018

**University of Tokyo**, Tokyo, Japan  
M.A., Economics, 2015

**Soka University**, Tokyo, Japan  
B.A., Economics, *summa cum laude*, 2013  
Exchange Student, Queen's University Belfast, 2010

## Fields of Specialization

Primary: International Trade, Urban Economics  
Secondary: Growth/Innovation, Corporate Finance

## Job Market Paper

Mobile Human Capital and Diffusion of Ideas Across Cities

**Abstract:** I study how internal migration of inventors affects local and aggregate growth through technological diffusion across cities. I propose a quantitative spatial theory of growth and knowledge diffusion through internal migration. My model highlights two mechanisms in which productivity growth can be higher in one city than another: (1) agglomeration forces driven by city size and (2) knowledge inflows through internal migration. I estimate the model using data on U.S. cities and find that large cities have significantly benefited from better access to technology through migration inflows from other cities. This migration effect explains approximately 40% of the cross-sectional variation in local productivity changes.

## Working Papers

Place-Based Policies and the Spatial Distribution of Corporate Investment

(joint with Cameron LaPoint)

*Homer Hoyt Institute Best Paper Award at AsRES-AREUEA Tokyo Conference*

**Abstract:** Growing spatial inequality has led policymakers to enact tax breaks to attract corporate investment and jobs to economically peripheral regions. We demonstrate the importance of multi-plant firms' physical capital structure for the take-up and efficacy of place-based policies by studying a national bonus depreciation scheme in Japan which altered the relative cost of capital across locations, offering high-tech manufacturers immediate cost deductions from their corporate income tax bill. Combining corporate balance sheets with a registry containing investment by plant location and asset type, we find the policy generated big gains in employment and investment in building construction and in machines at pre-existing production sites, with an implied fiscal cost per job created of \$16,000. These responses are driven by more financially constrained firms, firms which rely on costly but long-lived capital inputs, and firms with a larger portion of their existing operations proximal to the policy catchment areas. The policy did not generate positive local spillovers to ineligible plants or spillovers through inter-regional trade networks. For eligible firms, plant-level hiring in ineligible areas outstripped that in eligible areas, suggesting reallocation of resources within firms' internal capital and labor markets mitigates the spatial misallocation inherent in subsidizing low productivity areas.

Coming in at a Trickle: The Optimal Frequency of Public Benefit Payments  
(joint with Cameron LaPoint)

**Abstract:** The question of how governments should choose the frequency of payments has received little attention in the literature on the optimal design of public benefits programs. We propose a simple model in which the government chooses the length of the interval between payments, subject to a tradeoff between the administrative cost of providing more frequent benefits and the welfare gain from reducing deviations from full consumption smoothing. In our empirical application, we examine consumer and retailer responses to bimonthly payments from the Japanese National Pension System. We exploit variation in the duration of payment cycles using a unique retail dataset that links consumers to their purchase history. Our difference-in-differences style approach shows a clear spike in spending on payment dates for customers who are of retirement age relative to those who are not. While within-store average prices increase by 1.6% on payday, this effect is almost entirely due to consumers substituting towards higher quality goods rather than a retailer response. We use these reduced form estimates to parameterize the model and conclude that the optimal frequency of Japanese public pension payments is less than one month, implying the government could improve welfare by increasing payment frequency.

## Works In Progress

From Malthus to Miracle: The Sources of Japanese Industrialization  
(joint with Réka Juhász and David E. Weinstein)

## Research Experience

2021	Hitotsubashi University, Visiting Researcher
2017–2020	Columbia University, Research Assistant for David E. Weinstein
2015–2016	University of Tokyo, Research Assistant for Tsutomu Watanabe
2013–2015	University of Tokyo, Research Assistant for Michal Fabinger

## Teaching Experience

Columbia University	
Teaching Assistant for Corporate Finance (Undergraduate)	2019 Spring
Teaching Assistant for International Trade (Undergraduate)	2018 Fall
University of Tokyo	
Teaching Assistant for Macroeconomics (Undergraduate)	2014 Fall

## Fellowships, Grants & Honors

2022	GSAS Matching Travel Grant
2021	Dissertation Fellowship, Columbia University
2018	The PER Summer Research Assistant Grant, Columbia University
2016–2020, 2022	Center on Japanese Economy and Business Doctoral Fellowship, Columbia University
2016–2021	The Nakajima Foundation Scholarship
2013, 2014	First Prize (2014); Second Prize (2013), Mizuho Foundation for the Promotion of Sciences Essay Contest
2013	Valedictorian; Dean's Award, Soka University
2009–2012	Academic Merit Scholarship, Soka University

## Invited Seminars & Presentations

2022: UEA London (LSE), Keio-Kyoto IT Webinar (Keio), AREUEA-AsRES Tokyo (virtual)  
2021: RIETI Workshop (virtual)  
2014: University of Tokyo  
\*scheduled

## Professional Activities

**Referee Services:** Journal of Urban Economics

## Skills

**Languages:** English (fluent), Japanese (native)

**Programming:** Python, Stata, MATLAB, R, Julia, Mathematica, GIS

## References

### David E. Weinstein

Carl S. Shoup Professor of  
Japanese Economy  
Columbia University  
[dew35@columbia.edu](mailto:dew35@columbia.edu)

### Donald R. Davis

Ragnar Nurkse Professor of  
Economics  
Columbia University  
[drd28@columbia.edu](mailto:drd28@columbia.edu)

### Réka Juhász

Assistant Professor of Economics  
Vancouver School of Economics  
University of British Columbia  
[reka.juhasz@ubc.ca](mailto:reka.juhasz@ubc.ca)

CONTACT INFORMATION	Department of Economics Columbia University 420 West 118th Street New York, NY 10027	Phone: +1 (617) 866-0115 Email: <a href="mailto:bookang.seol@columbia.edu">bookang.seol@columbia.edu</a> Website: <a href="http://bookangseol.com">bookangseol.com</a>
PLACEMENT	<b>Chairs:</b> Sandra Black, <a href="mailto:sblack@columbia.edu">sblack@columbia.edu</a> ; Suresh Naidu, <a href="mailto:sn2430@columbia.edu">sn2430@columbia.edu</a> <b>Administrator:</b> Amy Devine, <a href="mailto:aed2152@columbia.edu">aed2152@columbia.edu</a> , +1 (212)854-6881	
EDUCATION	Ph.D. in Economics, Columbia University (expected) MPA/ID (Int'l Development), Harvard Kennedy School A.B. in Economics, Harvard University	2023 2017 2013
FIELDS	Development Economics, Applied Microeconomics, and Economic History	
FELLOWSHIPS AND AWARDS	<b>Columbia University</b> CDEP Fellow, Center for Development Economics and Policy Dissertation Fellowship PER Summer Research Fellow, Program for Economic Research PER Field or Experiment Fund CDEP Field Research Fund Economics Department Colloquium Research Fund Young-Iob Chung Fellowship Dean's Fellow	2022-2023 2022-2023 2022 2022 2021 2021 2019-2020 2017-2022
	<b>Harvard University</b> The Harvard International Development Internship Fund (HIDIF) Morris Kronfeld Prize (for showing the greatest academic improvements)	2016 2013
	<b>Others</b> Army Achievement Medal from the US Army	2010
JOB MARKET PAPER	<b>Social Cohesion, Public Goods, and Productivity</b> [ <a href="#">Most recent version</a> ] <i>Abstract:</i> To what extent does local context matter for the success of policies? I use newly digitized historical data from Korea to investigate the effect of social cohesion on public good provision and agricultural productivity. Korea's structural transformation in the 1970s was accompanied by a 50% growth in agricultural output per capita. During this period, the Korean government delegated the authority for public good provision to local communities—a development practice known as Community-Driven Development. The role of pre-existing Korean village characteristics in this context has not been explored. First, I exploit cross-sectional variation in social cohesion that stems from family clan homogeneity. I find that homogeneous villages provision more public goods and have higher agricultural productivity. Then, I use time variation in market access created by the construction of a bridge. The effect of clan homogeneity is amplified with increased market access. I provide suggestive evidence that this initial gap in productivity by pre-existing conditions closes by the 1980s. The combination of social cohesion, decentralized public good provision, and national transportation together explain 30% of agricultural productivity growth between 1969 and 1979.	



WORKING PAPERS	<b>Technical Glitch with a Lasting Impact: the Y2K Bug and IT Sector in India</b> <i>Abstract:</i> The Y2K bug refers to the problem when old computer programs misinterpret the year 2000 for 1900. During the months following up to January of 2000, governments and companies worldwide started outsourcing debugging tasks to companies in India. The Y2K bug created a temporary demand shock for Indian IT firms. I use this variation in exports to examine how it affects firm productivity in the long run. I also investigate the responses in the secondary education market. I find that (1) the “exposed” firms have significantly higher sales and wages even after the shock had dissipated and that (2) the districts that had more exposed firms experienced a significant increase in the number of private secondary schools where English is the primary medium of instruction.	
WORK IN PROGRESS	<b>How Crony was Korea’s “Crony Capitalism”?</b> <i>Research Question:</i> Do family ties explain the allocation of government funds?	
RESEARCH AND WORK EXPERIENCE	Summer Intern for Rohini Pande, Harvard Kennedy School Analyst, The World Development Report 2016, The World Bank Research Assistant for Pol Antràs, Harvard University Research Assistant for Ed Glaeser, Harvard University Research Assistant for Ricardo Hausmann, Harvard Kennedy School Military service, the Korean Army	Summer 2016 2014-2015 2013-2014 Fall 2013 2011-2013 2008-2010
TEACHING EXPERIENCE	Teaching Assistant International Trade (Undergraduate) Industrial Organization (Undergraduate/Master’s) Principles of Economics, Head TA Game Theory (Undergraduate/Master’s)	Fall 2021 Spring 2020, Spring 2021 Fall 2019, Fall 2020 Spring 2019, Fall 2018
OTHER INFORMATION	Citizenship: South Korea Languages: English, Korean Programming: STATA, ArcGIS, Python, MATLAB, R Leadership Experience: President (2016-2017), Harvard Korea Society	
REFERENCES	<div> <b>Miguel Urquiola (Sponsor)</b>  Dean of Social Sciences  Department of Economics  Columbia University  <a href="mailto:msu2101@columbia.edu">msu2101@columbia.edu</a>  +1 (212) 854-8908 </div> <div> <b>Eric Verhoogen</b>  Professor of Economics and SIPA  Department of Economics  Columbia University  <a href="mailto:eric.verhoogen@columbia.edu">eric.verhoogen@columbia.edu</a>  +1 (212) 854-4428 </div> <div> <b>Suresh Naidu</b>  Professor of Economics and SIPA  Department of Economics  Columbia University  <a href="mailto:sn2430@columbia.edu">sn2430@columbia.edu</a>  +1 (212) 854-0027 </div>	

# Yeji Sung


 [yeji.sung@columbia.edu](mailto:yeji.sung@columbia.edu)

 [www.yeji-sung.com](http://www.yeji-sung.com)

 (917) 999-8436

## Placement Committee

Placement Chair	Sandra Black	<a href="mailto:sblack@columbia.edu">sblack@columbia.edu</a>	(212) 854-3676
Placement Chair	Suresh Naidu	<a href="mailto:sn2430@columbia.edu">sn2430@columbia.edu</a>	(212) 854-0027
Placement Assistant	Amy Devine	<a href="mailto:aed2152@columbia.edu">aed2152@columbia.edu</a>	(212) 854-6881

 Department of Economics, Columbia University, New York, NY 10027

## Fields of Specialization

Macroeconomics, Monetary Economics, and Behavioral Economics.

## Education

Columbia University, Ph.D., Economics, 2016 - present; M.A., Economics, 2017.

Seoul National University, M.A., Economics, 2015; B.A., Economics, 2013.

## References

Professor Michael Woodford Columbia University <a href="mailto:mw2230@columbia.edu">mw2230@columbia.edu</a>	Professor Jennifer La'O Columbia University <a href="mailto:jenlao@columbia.edu">jenlao@columbia.edu</a>	Professor Hassan Afrouzi Columbia University <a href="mailto:ha2475@columbia.edu">ha2475@columbia.edu</a>
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## Job Market Paper

“Macroeconomic Expectations and Cognitive Noise”

The rational expectations hypothesis cannot explain the seemingly conflicting pattern from recent studies: Consensus forecasts are under-revised while individual forecasts are over-revised. In this paper, I argue that cognitive noise — the unsystematic errors in human judgments — can explain this pattern. In particular, I suppose noise arises from two types of constraints, one in processing new information and another in remembering old information. I show that jointly modeling these two sources of cognitive noise is essential in understanding the pattern. I then estimate the extent of noise in the professional forecasters’ projections of the overall U.S. economy.

## Working Paper

“Optimally Imprecise Memory and Biased Forecasts” (with Rava Azeredo da Silveira and Michael Woodford), NBER Working Paper No. 28075, Nov. 2020

- Revised and Resubmit, *American Economic Review*

We propose a model of optimal decision making subject to a memory constraint. The constraint is a limit on the complexity of memory measured using Shannon's mutual information, as in models of rational inattention; but our theory differs from that of Sims (2003) in not assuming costless memory of past cognitive states. We show that the model implies that both forecasts and actions will exhibit idiosyncratic random variation; that average beliefs will also differ from rational expectations beliefs, with a bias that fluctuates forever with a variance that does not fall to zero even in the long run; and that more recent news will be given disproportionate weight in forecasts. We solve the model under a variety of assumptions about the degree of persistence of the variable to be forecasted and the horizon over which it must be forecasted, and examine how the nature of forecast biases depends on these parameters. The model provides a simple

explanation for a number of features of reported expectations in laboratory and field settings, notably the evidence of over-reaction in elicited forecasts documented by Afrouzi et al. (2020) and Bordalo et al. (2020a).

“The impact of TLTRO2 on the Italian credit market: some econometric evidence”

(with Lucia Esposito and Davide Fantino), Bank of Italy Temi di discussione No. 1264, Feb. 2020

This work evaluates the impact of the second series of Targeted Longer-Term Refinancing Operations (TLTRO2) on credit market conditions for Italian firms. The estimates use a difference-in-differences approach on quarterly data, including term loans, interest rates, and bank and firm characteristics, between the start of 2015 and the end of 2017. The TLTRO2 had a positive impact on credit, encouraging lending to firms and reducing interest rates. The impact on the amount of credit was stronger for less risky firms, while that on interest rates was stronger for riskier ones. Smaller firms benefited more in terms of both loan amounts and interest rates.

## **Publication**

“The Relevance of the FTPL in Korea”

*Journal of Economic Theory and Econometrics* 26(1): 1-34, Mar. 2015.

(with Jungsik Hyun, Jung Yi Hong, and Jae Won Lee)

## **Fellowships and Grants**

Federal Reserve Bank of St. Louis, Dissertation Fellowship, 2022

Federal Reserve Board, Dissertation Fellowship, 2021

Caswell L. Johnson Columbia Scholarship, 2019-2020.

Program for Economic Research, Columbia University, Data & Research Fellow Grant, 2018, 2019.

Ilju Academy and Culture Foundation, Ph.D. Fellowship, 2016-2020.

GSAS Dean's Fellowship, Columbia University, 2016-2021.

## **Teaching Assistance**

Columbia University

Money and Banking (2019, 2020), The Psychology and Economics of Consumer Finance (MBA; 2019, 2018), International Trade (2017)

Seoul National University, 2013-2016.

Principles of Economics, Introductory Statistics for Economists, Microeconomics, Macroeconomics, Advanced Macroeconomics (Graduate), Applied Macroeconomics (Graduate)

## **Research Assistance**

2018-2019: for Michael Woodford

2017-2018: for Adam Guren, Emi Nakamura and Jón Steinsson

2014-2016: for Jae Won Lee

## **Workshop and Conference Presentations**

2022: ASSA Meeting

2021: Federal Reserve Board, MA Workshop & IFB Lunch Workshop

2020: Bocconi Virtual Ph.D. Conference (Behavioral Macro-Finance)

2019: The Sloan-Nomis Workshop on the Cognitive Foundations of Economic Behavior, Young Economists Symposium

2016: The Econometric Society Australasia Meeting  
2015: Korea's Allied Economic Associations Annual Meeting

**Personal**

Citizenship: South Korea

# Ken Teoh

October 2022

Department of Economics  
Columbia University  
New York, NY 10027

+1 (215) 808-7356  
[k.teoh@columbia.edu](mailto:k.teoh@columbia.edu)  
[sites.google.com/view/kenteoh](https://sites.google.com/view/kenteoh)

Placement Chairs: Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu), Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)  
Placement Assistant: Amy Devine, +1 (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## Education

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**Columbia University**, New York, NY

*2017 - 2023 (expected)*

Ph.D. Candidate in Economics

M.Phil. in Economics

*2020*

M.A. in Economics

*2019*

**University of Pennsylvania**, Philadelphia, PA

*2013 - 2017*

B.A. Economics, *summa cum laude*, College of Arts and Sciences

B.S. Economics, *summa cum laude*, Wharton Business School

## Fields of Specialization

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Finance, Macroeconomics

## Job Market Paper

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**Anticipating Binding Constraints: An Analysis of Financial Covenants.** October 2022.

This paper studies the extent to which public nonfinancial firms in the United States are concerned about future covenant violations. Applying textual analysis to earnings call transcripts, I construct a novel measure of covenant concerns by distinguishing between discussions of covenants that relate to the future as opposed to the past or present. Covenant concerns rise significantly during recessions, covary asymmetrically with earnings growth, and predict a higher risk of violating covenants in the next quarter. Firms that are concerned about future violations significantly reduce their investments, debt issuance, and equity payouts. The reduction in investments associated with concerns about future violations is twice as large as the reduction due to actual violations.

## Working Papers

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1. "Macroeconomic Attention and Expected Returns." with Eugene Larsen-Hallock. December 2021.
2. "Covid-19: Testing Inequality in New York City." with Stephanie Schmitt-Grohé and Martín Uribe. *NBER Working Paper No. 27019*. April 2020.
3. "Aggregate Uncertainty and Attention: Cross-sectional Evidence from the Covid-19 Pandemic." with Eugene Larsen-Hallock. April 2020.

## Other Writings

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1. Review of “Disaggregating Asian Race Reveals COVID-19 Disparities among Asian Americans at New York City’s Public Hospital System.” *Rapid Reviews: COVID-19*. January 2021.
2. “Croatian Pension System: A Closer Look at Pillar II.” August 2019.

## Research and Work Experience

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### **Federal Reserve Board**, Washington, DC

Dissertation Fellow, Division of Financial Stability *Summer 2022*

### **Columbia University**, New York, NY

Research Assistant to Prof. Matthieu Gomez *Spring 2022*

Research Assistant to Prof. José Luis Montiel Olea *Summer 2021*

Research Assistant to Profs. Stephanie Schmitt-Grohé and Martín Uribe *2019 - 2021*

### **International Monetary Fund**, Washington, DC

PhD Summer Intern, European Department *Summer 2019*

## Teaching Experience

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### **Columbia University**, New York, NY

International Macroeconomics, Prof. Martín Uribe *Spring 2022*

Finance and the Real Economy, Prof. Matthieu Gomez *Fall 2021*

EMBA/MBA Fintech: Consumer Financial Services, Prof. Stephen Zeldes *Spring 2021*

International Macroeconomics, Prof. Stephanie Schmitt-Grohé *Spring 2019*

Corporate Finance, Prof. Ethan Namvar *Fall 2018*

## Fellowships, Honors, and Awards

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### **Columbia University**, New York, NY

Dissertation Fellowship *2022 - Present*

Dean’s and Department Fellowship *2017 - 2022*

Wueller Teaching Award (Runner Up) *2022*

PER Summer Research Stipend Award *2022*

Marion B. Stewart and Marcia E. Glanz Fund Fellowship *2022*

PER Data Purchase Grant *2020*

### **University of Pennsylvania**, Philadelphia, PA

Phi Beta Kappa *2018*

Bernard Shanbaum Prize for Excellence in Economics *2017*

Rose Undergraduate Research Award *2017*

Dean’s List *2013 - 2017*

Undergraduate Scholarship, Khazanah Foundation *2013 - 2017*

## Presentations (\* scheduled)

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2022	Federal Reserve Board, Midwest Macro Meetings*
2021	27th International Conference on Computing in Economics and Finance
2019	International Monetary Fund

## Referee Service

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*Rapid Reviews: COVID19, European Journal of Health Economics*

## Personal

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**Full name:** Hong Ken Teoh

**Citizenship:** Malaysian, F1-visa

**Programming languages:** Python, Stata, Matlab, R

## References

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Stephanie Schmitt-Grohé  
Professor of Economics  
Department of Economics  
Columbia University  
[ss3501@columbia.edu](mailto:ss3501@columbia.edu)

Martín Uribe  
Professor of Economics  
Department of Economics  
Columbia University  
[mu2166@columbia.edu](mailto:mu2166@columbia.edu)

Jesse Schreger  
Class of 1967 Associate Professor  
of Business  
Columbia Business School  
[jesse.schreger@columbia.edu](mailto:jesse.schreger@columbia.edu)

## Education

- 2017-Present **Ph.D. in Economics**, *Department of Economics*, Columbia University, NY.  
◦ GPA: 3.99/4.0
- 2015-2017 **M.A. in Economics**, *Department of Economics*, Duke University, NC.
- 2011-2015 **B.A. in Finance**, *Kuang Yaming Honors School*, Nanjing University, China.

## Research Interests

Production Network, Macroeconomics, Finance

## Working Papers

- 2022 *Strategic Alliance and Endogenous Production Network (Job Market Paper)*.
- 2022 *R&D, Risk Premia and Credit Spreads (with Z. Liu)*.
- 2021 *Measuring Industry-Specific Uncertainty: A Bayesian Approach*.

## Awards

- 2022-2023 Dissertation Fellowship, *Columbia University*.
- 2017-2022 Dean's Fellowship, *Columbia University*.

## Teaching Experience

- 2021-22 **Corporate Finance** (Graduate-Level), *Columbia University*.
- 2018, 20-21 **Financial Economics** (Undergraduate-Level), *Columbia University*.
- 2019 **Microeconomics** (Economics M.A. Course), *Columbia University*.
- 2019 **Principle of Economics** (Undergraduate-Level), *Columbia University*.
- 2017 **Econometrics** (Economics M.A. Course), *Duke University*.

## Skills

MATLAB, STATA, SAS, R, DYNARE

## Reference

**Jennifer La'O**  
*Associate Professor of Economics*  
Department of Economics  
Columbia University  
✉ [jenlao@columbia.edu](mailto:jenlao@columbia.edu)

**Émilien Gouin-Bonenfant**  
*Assistant Professor of Economics*  
Department of Economics  
Columbia University  
✉ [eg3041@columbia.edu](mailto:eg3041@columbia.edu)

**Martina Jasova**  
*Assistant Professor of Economics*  
Department of Economics  
Barnard College, Columbia University  
✉ [mjasova@barnard.edu](mailto:mjasova@barnard.edu)



# Krzysztof Zaremba

Department of Economics, Columbia University, New York, NY, 10027  
+1 917-704-3128 | kz2303@columbia.edu | [krzysztofzaremba.github.io](https://krzysztofzaremba.github.io)

## Placement Chairs:

Sandra Black, +1 (212)-854-3676, sblack@columbia.edu

Suresh Naidu, +1 (212)-854-0027, sn2430@columbia.edu

## Placement Assistant:

Amy Devine, +1 (212) 854-6881, aed2152@columbia.edu

## Education

### Columbia University

Ph.D., Economics	<i>Expected 2023</i>
M.Phil., Economics	2020
M.A., Economics	2019

### Bocconi University

M.Sc., Economic and Social Sciences	2016
<i>Thesis: "Spreading of Diseases on the Sexual Networks"</i>	
<i>Supervisors: Paolo Pin and Alessa Melagaro</i>	

### Sciences Po Paris

B.A., Social Sciences	2014
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## Fields of Specialization

*Primary Field:* Health Economics

*Secondary Fields:* Applied Microeconomics, Family Economics, Networks

## Job Market Paper

### Effects of Intra-Couple Bargaining Power on the Maternal and Neonatal Health

**Abstract:** This paper provides evidence that the distribution of the bargaining power in a relationship shapes pregnancy outcomes. I measure female bargaining power with the availability of potential male partners in the local dating market. To circumvent endogeneity in the sex ratio, I use a novel instrument that leverages the randomness in sex at birth and the persistence of local demographics to isolate exogenous variation in the relative availability of men. Instrumental variables estimation shows that higher female bargaining power leads to fewer out-of-wedlock births, a lower rate of Chlamydia and Hypertension among mothers, and a lower share of infants with APGAR score below seven. These findings point to a significant contribution of the marriage market to racial disparities in pregnancy health, particularly between Black and White mothers. Black women face poor prospects when looking for a partner compared to White women: there is 102 White man per 100 White women but only 89 Black men per 100 Black women. According to my estimates, Black women's disadvantage accounts for 5-10% of the racial gap in maternal and neonatal health. Next, I use a decomposition technique to demonstrate that the racial difference in male availability is mostly policy driven, as incarceration accounts for 45% of the gap. I show with simulations that a counterfactual policy equalizing incarceration rates for non-violent offenses between Black and White people would, if one considers the sole effect on female bargaining power, still reduce health disparities by 1-4%

## Working Papers

1. [Opening of hotels and ski facilities: impact on mobility, spending, and Covid-19 outcomes](#)  
(R&R at *Health Economics*)

**Abstract:** This paper investigates how reopening hotels and ski facilities in Poland impacted tourism spending, mobility, and COVID-19 outcomes. We used administrative data from a government program that subsidizes travel to show that the policy increased the consumption of tourism services in ski resorts. By leveraging geolocation data from Facebook, we showed that ski resorts experienced a significant influx of tourists, increasing the number of local users by up to 50%. Furthermore, we confirmed an increase in the probability of meetings between pairs of users from distanced locations and users from tourist and non-tourist areas. As the policy impacted travel and gatherings, we then analyzed its effect on the diffusion of COVID-19. We found a significant association between tourist movements and the severity of a major pandemic wave in Poland. In particular, counties with ski facilities experienced more infections after the reopening. Moreover, counties strongly connected to the ski resorts during the reopening had more subsequent cases than weakly connected counties.

2. [Contribution of school and commuting networks to spreading influenza in Poland](#)

**Abstract:** Epidemics can have devastating health and economic consequences. This paper studies the diffusion of influenza-like illnesses (ILI) through social and economic networks. Using almost two decades of weekly, county-level infection and mortality data from Poland, it studies within and across-counties ILI transmission. Firstly, it evaluates the causal effect of school closures on viral transmission. The results show that closing schools for two weeks decreases the number of within county cases by 30-40%. The decline in infections extends to elderly and pre-school children. In addition, flu-related hospitalizations drop by 7.5%, and mortality related to respiratory diseases among the elderly drops by 3%. Secondly, the paper demonstrates the significant contribution of economic links to diffusion across counties. The disease follows the paths of workers commuting between home and workplace. Together with the structure of the labor mobility networks, these results highlight the central role of regional capitals in sustaining and spreading the virus.

## Work in Progress

1. [Beware of Fake Friends: Spurious Links and Peer Effects in Networks](#)

**Abstract:** This paper discusses the robustness of the widely used IV method of estimating peer effects (from Bramoullé et al., [2009]) to spurious links. Spurious links are "false positive" connections that researchers observe but which do not exist in reality. First, I show that this estimator is inconsistent when spurious links are present and can find significant peer effects even if there are none. Next, I suggest an unbiased test for the existence of peer effects and show its performance in simulations.

2. [Spreading New Habits](#)

**Abstract:** Various behaviors of economic relevance, such as condom use or hand washing, are subject to habitual practice. This paper takes into account habit formation to model the spread of new behaviors on networks. It augments traditional diffusion models with a novel insight: the probability of abandoning a new behavior decreases with the time spent practicing it. Three main results concerning interventions aiming to diffuse new behaviors stem from the augmented models. Firstly, repeated interventions are more successful at establishing new behaviors that require a long habit formation process. Secondly, there is a trade-off between the minimum number of initial adopters needed to spread the behavior and the intervention duration. Thirdly, habit formation can introduce non-monotonicities in adoption patterns in time, identifying behaviors prone to habit.

3. [Dashboard: Mobility in Poland During Covid-19 Pandemic](#)

An online R Shiny dashboard visualizing mobility trends in Poland during Covid-19 pandemic. It *uses Facebook* smartphone geolocation data to measure daily changes in movement patterns in the period March 2020-May 2022. Interactive visualizations explore spatial, temporal, and network aspects of mobility.

4. [Predicting Malpractice among New York Physicians](#)

This project utilizes machine learning techniques to predict which physicians are likely to be disciplined by the New York Medical Conduct Board. It is based on a compilation of datasets describing 140 000 physicians licensed to practice in NY and includes their characteristics, location, employment history, networks, education, and disciplinary actions. The goal of the project is to assign each physician a risk score of committing a professional misconduct.

## Professional Experience

### *Columbia University*

Research Assistant (Prof. Michael Best)	2019-2021
Research Assistant (Prof. José L. Montiel Olea)	2019
Research Assistant (Prof. Alessandra Casella)	2019

### *European Commission*

Brussels, Trainee in DataLab, DG HR	2017
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### *Bocconi University*

Research Assistant (Prof. Fernando Vega-Redondo)	2016-2017
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## Teaching Experience

### *Principles of Economics*

Teaching assistant, (with Prof. Prajit Dutta)	Fall 2018
Teaching assistant, (with Prof. Brendan O'Flaherty)	Spring 2019
Teaching assistant, (with Prof. Brendan O'Flaherty)	Spring 2020

### *Introduction to Econometrics*

Teaching assistant, (with Prof. Tamrat Gashaw)	Fall 2019
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## Honors and Awards

Dissertation Fellowship, Department of Economics, Columbia University	2022
Program for Economic Research, Columbia University, Data Purchase Grant	2020
Dean's Fellowship, Department of Economics, Columbia University	2017-2021
Summa Cum Laude, Bocconi University	2016
Bocconi Merit Award	2014-2016
Cum Laude, Sciences Po Paris	2014
Award for top student at Sciences Po Paris Dijon Campus	2012-2014

## References

**Douglas Almond** (*Sponsor*)

Professor of Economics and International and Public Affairs  
Columbia University  
+1 212-854-7248  
da2152@columbia.edu

**Pierre-André Chiappori**

E. Rowan and Barbara Steinschneider Professor of Economics  
Columbia University  
+1 212-854-6393  
pc2167@columbia.edu

**Brendan O’Flaherty**

Professor of Economics  
Columbia University  
+1 212-854-2449  
bo2@columbia.edu

## Miscellaneous

*Programming Languages:*

R, MATLAB, Python, SQL, Stata, Linux shell scripting

*Human Languages:*

Polish (native), English (fluent), Italian (fluent), French (fluent)

*Refereeing:*

American Journal of Health Economics, Preventative Medicine

*U.S. work authorization:*

Eligible for 3-year OPT

# Howard Zihao Zhang

## CONTACT INFORMATION

Email: [howard.zhang@columbia.edu](mailto:howard.zhang@columbia.edu)  
Website: <https://howardzzhang.github.io>  
Phone: +1 (617) 359-1979

## PLACEMENT INFORMATION

### Placement Chairs:

Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu)  
Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)

### Placement Assistant:

Amy Devine, +1 (212) 854-6881  
[aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## RESEARCH INTERESTS

Primary Fields: International Trade, Urban Economics  
Secondary Field: Real Estate

## EDUCATION

Ph.D. Candidate in Economics, Columbia University, 2017 - present  
M.Phil. Economics, Columbia University, 2017 - 2020  
M.A. Economics, Columbia University, 2017 - 2019  
A.B. Applied Mathematics, *Magna Cum Laude*, Harvard University, 2011 - 2015  
High Honors in Field, Minor in Computer Science

## JOB MARKET PAPER

### Consumer Cities: The Role of Housing Variety

*Awarded [Best Student Paper Prize 2022](#) by the Urban Economics Association*

This paper estimates theoretically-founded housing price indices that account for differences in housing variety availability, where some varieties are available in certain cities but not others. I develop a model of housing demand and city choice that incorporates differentiated housing varieties and the discrete-nature of housing decisions. For estimation, I develop a method to jointly estimate the nests that varieties belong to and the elasticity of substitution across varieties within each nest. I find that households in larger cities benefit from having access to varieties not available in smaller cities. These consumption amenities are quantitatively large: the elasticity with respect to population is a third of the elasticity of housing prices with respect to population. After accounting for consumption amenities, real income increases with city size.

## WORKING PAPERS

### Exporting and Knowledge Diffusion

How do we model and quantify the dynamic gains from exporting? I develop a dynamic trade model where firms innovate and learn from other firms in the destinations they sell to. The evolution of a country's stock of knowledge can be expressed as a function of export flows and the stocks of knowledge of their trading partners. I find evidence that countries in Asia, North America, and Europe, as well as countries in the top two quartiles of TFP growth were able to better absorb foreign insights than other countries. I evaluate whether there are dynamic gains from trade with two counterfactual exercises. First, I measure the impact of changing trade costs between 1962 and 2000. I find small static gains but zero dynamic gains for the world economy. Second, I quantify the dynamic gains from export-induced foreign knowledge flows by simulating a counterfactual where there is no learning from foreign sources. I find that domestic learning compensates for foreign learning: there are large dynamic gains from exporting when there is no domestic learning and small dynamic gains when there is domestic learning.

IN PROGRESS	Decreasing Returns to Scale and Exchange Rate Pass-Through Shopping Alone: The Impact of the Decline of the American Mall ( <i>with Guy Aridor and Louise Guillouet</i> )
RESEARCH EXPERIENCE	Research Assistant for Réka Juhász and Dávid Nagy, Columbia University, 2019 Research Assistant for Andrea Prat, Columbia University, 2019 Research Assistant for Joseph Aldy, Harvard Kennedy School, 2012
TEACHING EXPERIENCE	Columbia University (Teaching Assistant) Introduction to Econometrics: Fall 2018, Spring 2019, Spring 2020 International Trade: Fall 2019, Spring 2021 Economic Development of Japan: Fall 2020
FELLOWSHIPS AND AWARDS	Reubens Travel and Research Fellowship, Columbia University, 2021 - 2022 Dissertation Fellowship, Columbia University, 2022 - present Doctoral Fellowship, Columbia University, 2017 - present Harvard University Center for the Environment Summer Research Fellowship, 2012
PROFESSIONAL ACTIVITIES	Conference Presentations: UEA Summer School 2021, UEA Fall 2021, AREUEA National 2022, UEA Fall 2022 Referee: Journal of Urban Economics Organizer of International Trade Colloquium at Columbia University, 2020 - 2022
NON-ACADEMIC EMPLOYMENT	Analyst, Cornerstone Research, 2015 - 2017
PERSONAL	Citizenship: Chinese (U.S. Permanent Resident)
TECHNICAL SKILLS	Julia, Stata, SQL, Matlab, R, Python
REFERENCES	<div> <b>David E. Weinstein</b>  <a href="mailto:dew35@columbia.edu">dew35@columbia.edu</a>  Carl S. Shoup Professor of the Japanese Economy  Columbia University </div> <div> <b>Donald R. Davis</b>  <a href="mailto:drdavis@columbia.edu">drdavis@columbia.edu</a>  Ragnar Nurkse Professor of Economics  Columbia University </div> <div> <b>Bernard Salanié</b>  <a href="mailto:bsalanie@columbia.edu">bsalanie@columbia.edu</a>  Professor of Economics  Columbia University </div>