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**Education** 

**Harvard University** 

Ph.D. Economics, 2019 to 2025 (expected)

M.A. Economics, 2022

University of North Carolina at Chapel Hill

B.A Mathematics & Economics, Highest Honors and Highest Distinction, 2016

Minor Computer Science

**Fields** 

**Development Economics** 

**Urban Economics** 

References

Professor Emily Breza ebreza@fas.harvard.edu

Professor Edward Glaeser eglaeser@harvard.edu

Professor Gabriel Kreindler gkreindler@fas.harvard.edu

Fellowships & Awards

UEA Prize for Best Student Paper, Honorable Mention, 2024

Center for International Development, PhD Affiliate, Harvard University, 2022-2024

American Law and Economic Review Best Empirical Paper Award, 2022 Certificate of Distinction in Teaching, Harvard University, 2021, 2022

Nigerian Fellowships for Distinguished African Students, Government of Nigeria, 2019-2021

Renwick Academic Achievement Award, UNC-Chapel Hill, 2012-2016

**Teaching** 

Introduction to Econometrics (UG), Harvard University, teaching fellow for Prof. Bruich, 2022,

2024

Introduction to Econometrics (UG), Harvard University, teaching fellow for Prof. Pettenuzzo, 2021 Development Microeconomics (PhD), Harvard University, teaching fellow for Prof. Breza, 2023 Financial Markets for the Poor (UG), Harvard University, teaching fellow for Prof. Breza, 2023 Introduction to Scientific Programming (UG), UNC-Chapel Hill, teaching fellow for Prof. Bishop,

2014, 2016

**Employment** 

World Bank (DIME), Short Term Consultant, 2021

Credit Suisse, Technical Analyst, 2016-2017

Research

Research Assistant, Harvard University, Prof. Gabriel Kreindler, 2022-2024 Research Assistant, Harvard University, Prof. Michael Kremer, 2020

Empirical Research Fellow, Stanford Law School, Prof. Daniel Ho, 2017-2019

Job Market Paper

"Market Segmentation and Coordination Costs: Evidence from Johannesburg's Minibus Networks" (with F. Christopher Eaglin)

Abstract: How does spatial market segmentation affect firms' ability to meet demand across space? We study the market for public transportation in Johannesburg, South Africa, where private associations of minibus owners segment the city into distinct territories. In contrast, the demand for urban mobility is inherently interconnected, with a quarter of commuter trips originating in one association's territory and ending in another's. We study the frictions that associations face on these "between-territory" routes. Using GPS traces for over 40 million minibus trips and 9 million commuter trips, we present two complementary empirical results that quantify these frictions. First,

we use an expected, cyclic mobility demand shock – the sharp increase in recreational mobility following monthly pay dates – to trace out the supply curve of minibus services by route type. The supply elasticity is close to 1 on routes contained within an association's territory but is significantly lower on between-territory routes (0.4). We estimate that if between-territory supply were as elastic as "within-territory" supply, aggregate wait time for commuters would decrease by one million minutes per day, or approximately 4 minutes per trip. In our second exercise, we use exogenous fleet reductions due to bus breakdowns and repossessions to show that associations prioritize maintaining service on between-territory routes over within-territory routes, indicating that between-territory routes are more profitable at the margin. In a model of minibus allocation, our observed empirical patterns correspond to more convex costs on between-territory routes, reflecting the need for associations to coordinate with each other on these routes.

### **Working Papers**

"The Role of the 'Fare' in Welfare: Public Transportation Subsidies and their Effects on Low-Income Households" (with Seth Chizeck)

UEA Prize for Best Student Paper, Honorable Mention, 2024

Abstract: Can reducing public transit fares improve mobility and socioeconomic outcomes for low-income individuals? We conduct a randomized controlled trial that provides fare discounts to 9,544 low-income households in one large U.S. County. Households are randomly assigned to receive either no discount, a 50% discount, or a 100% discount on all public transit trips for 16 to 19 months. Free fares increase transit ridership by 43% relative to status quo prices, accompanied by a decrease in private vehicle trips. Half-price fares yield no change in transit ridership. There is suggestive evidence that fare reductions decrease the overall frequency and spatial breadth of travel, implying the need for other measures when quantifying improvements in a person's mobility capacity. We find little to no downstream effects on labor market outcomes, health care consumption, or self-reported health and well-being. Fare prices appear to play a limited role in the socioeconomic lives of poor families.

"Demand for Urban Exploration: Evidence from Nairobi" (with Joshua Dean and Gabriel Kreindler)

Abstract: Growing cities in low- and middle-income countries offer increased market access, yet taking advantage of urban opportunities requires that residents explore their surroundings. This is not always the case. In a sample of 800 casual workers in Nairobi, the median person commutes 7.8 km but has never been to half the neighborhoods at most 75 minutes from where they live. We next study the barriers to exploring urban locations. We offer short-term employment to workers in our sample and experimentally induce familiarity by training participants in either familiar or unfamiliar locations. We measure willingness to work in different locations across the city. Participants need to be paid more to work in a neighborhood that is unfamiliar at baseline. The premium is equivalent to 3.5 km of distance or to 108 Ksh (22% of the median daily wage), and this is fully offset after one visit. Participant beliefs about labor market opportunities and safety in unfamiliar neighborhoods are initially worse on average, but converge after one visit. We find little evidence that risk aversion can explain these results. We use additional job choice elicitation methods to show that participants only partially anticipate that one visit will eliminate the familiarity premium, and to show that unfamiliar neighborhoods are less "top of mind." Participants return on their own to the unfamiliar neighborhoods where they were trained to search for work and for other non-work reasons, and they are more likely to show up for a different paid opportunity 2-4 months after the intervention. Our results suggest that one-time exploration frictions are an important component of urban mobility costs in cities like Nairobi.

"Nudging Parents out the Door: The Impacts of Parental Encouragement on School Choice and Test Scores" (with Guthrie Gray-Lobe, Michael Kremer, Joost de Laat, and Cole Scanlon)

Abstract: This study evaluates a large-scale SMS outreach program to engage caregivers of students in private primary schools in Kenya. Using a two-stage randomization design, we tested

two types of weekly SMS messages: growth mindset encouragement and personalized performance information. We find two main effects: First, outreach improved test scores by 0.07 standard deviations, with particularly strong gains among initially lower-performing students. This improvement generates 12 learning-adjusted years of schooling per US\$100 spent—making it highly cost-effective relative to other education interventions. Second, outreach increased student exit rates by 4.6-5.0 percentage points, with effects concentrated among higher-achieving students (6.3-8.8 percentage points). We develop a theoretical model of vertically differentiated schools where parental engagement affects both learning production and school choice. The model shows that when parents update their understanding of education production through engagement programs, they become more sensitive to perceived school quality differences. This increased sensitivity can lead lower-quality schools to forgo implementing engagement programs—even when costless—as enhanced parental discernment accelerates student exits. Our findings suggest a role for third-party provision of parent engagement programs in competitive education markets.

#### **Publications**

"Mandatory Retirement and Age, Race, and Gender Diversity of University Faculties" (with Daniel Ho and Anne McDonough, American Law and Economic Review, 2021)

ALER Best Empirical Paper Award, 2022

Abstract: While many have documented the changing demographics of universities, understanding the effects of prohibiting mandatory retirement ("uncapping") has proved challenging. We digitize detailed directories of all American law school faculty from 1971–2017 and show that uncapping in 1994 had dramatic effects. From 1971 to 1993, the percent of faculty above 70—when mandatory retirement would typically have been triggered—remained stable at 1%, but starting in 1994, that proportion increased to 14%. We use a permutation test of moving cohorts to show that these increases are attributable to uncapping. Roughly 39% of faculty members would counterfactually have been subject to mandatory retirement. Effects were less pronounced at public schools, which were more likely to have defined benefits retirement plans. Second, we show that schools with the highest proportion of faculty over 70, and thus most impacted by uncapping, also exhibit the slowest integration of female and minority faculty members. Our study highlights crosscutting effects of civil rights laws: preventing age discrimination can have collateral effects on racial and gender integration.

"Menu labeling, calories, and nutrient density: Evidence from chain restaurants" (with Daniel Ho, Rebecca Potash, and Anne McDonough, PLOS One, 2020)

Abstract: The Food and Drug Administration's menu labeling rule requires chain restaurants to prominently display calories, while leaving other nutritional information (e.g., fat, sodium, sugar) to the request of consumers. We use rich micronutrient data from 257 large chain brands and 24,076 menu items to examine whether calories are correlated with widely used "nutrient profile" scores that measure healthfulness based on nutrient density. We show that calories are indeed statistically significant predictors of nutrient density. However, as a substantive matter, the correlation is highly attenuated (partial R2 < 0.01). Our findings (a) suggest that the promise of calorie labeling to improve nutrient intake quality at restaurants is limited and (b) clarify the basis for transparency of nutrient composition beyond calories to promote healthy menu choices.

#### **Papers in Progress**

"Motorcycle Taxis and Urban Congestion: Evidence from Nairobi's 'Boda Boda' Ban"

# Seminars & Conferences

Northeastern Universities Development Consortium (NEUDC) Conference, 2024 Cities and Development Workshop, 2024 North American Meeting of the Urban Economics Association (UEA), 2024

Delice Learnest Conference 2024

Policy Impacts Conference, 2024

Association for Public Policy Analysis & Management (APPAM) Research Conference, 2023

Academic Service Mentor: Harvard/MIT Application Assistance and Mentoring Program (2021-2023), Harvard

Graduate Student Peer Mentoring Program (2020-2023)

**Research Grants** Policy Impacts Early-Career Scholar Grant, 2024

Kenneth C. Griffin Economics Research Award, 2023 Lab for Economic Applications and Policy (x2), 2022, 2023 J-PAL NA Social Policy Research Initiative Grant, 2023

Warburg Research Fund (x2), 2021, 2022 Institute for Humane Studies, 2019

Software skills R, Python, Stata, MATLAB, SQL, ODK collect