I am a development economist who focuses on the migration of low-income people. Human mobility has long helped to determine people’s living conditions. Individuals move, both across and within countries, searching for better employment prospects, higher wages, and other opportunities. Beyond impacting individuals’ own outcomes, migration sometimes occurs at such a large scale that it affects the overall organization of economic activity within countries. My work explores the causes and effects of different types of movement, including internal and international migration, temporary and permanent relocations, and within-city residential movements. I consider both the microeconomic and macroeconomic implications of migration and formulate spatial equilibrium models to understand how impacts in one location may spill over to other areas. My research has been supported by several grants, including an NSF CAREER award and a Sloan Fellowship.

I) The first strand of my work explores the economic effects of migration in migrants’ places of origin, in the destinations to which they arrive, and on the overall economy.

a. Economic effects of migration in migrants’ place of origin: It is important to consider how out-migration from rural areas affects the residents left behind. In two papers, I study the impact of migration on informal insurance. Because low-income countries often lack formal markets for credit and insurance, households diversify risks by relying on other villagers for financial assistance in times of need (Townsend, 1994; Udry, 1994). I ask: do financial networks become weaker due to people's temporary movement out of the village, or do they become more robust due to income diversification?

In "Endogenous Risk Sharing and Temporary Migration in Village India" (Journal of Political Economy, 2019), I extend a model of informal insurance (Kocherlakota, 1996; Ligon, Thomas, & Worrall, 2002) to incorporate migration. In the model, households make migration and informal insurance decisions at the same time. As a result, the two decisions are interlinked. To quantify these interlinkages, I estimate the model using the new ICRISAT panel of households in South India and find that a) the introduction of migration reduced informal risk sharing, and b) the insurance that the network provided reduced migration. I then examine the policy implications of this finding: policies that reduce income risk may crowd out-migration and informal insurance. To explore this, I simulate the effect of the Indian government's rural employment guarantee program. I show that the welfare gains of this policy are 50–70% lower after accounting for the endogenous migration and risk-sharing responses.

In "Migration and Consumption Insurance in Bangladesh" (Forthcoming, Review of Economic Studies), joint with Costas Meghir, Mushfiq Mobarak, and Corina Mommaerts, the result is opposite from my earlier paper. When households in villages in Bangladesh were randomly offered subsidies to migrate during the agricultural lean season, risk sharing improved. The finding of crowd-in of informal insurance in one setting (Bangladesh), and crowd-out in another (India), may appear to be an empirical puzzle. However, the same model rationalizes the two findings. When the migration destination is particularly risky, as in the case of Bangladesh, migrants rely on the insurance provided by the risk-sharing network in case of failure. Increasing migration thus reinforces informal risk sharing. In contrast, when the migration destination is less risky, as in the case of India, migrants can weather income shocks independently. As a result, migrants become more self-sufficient and provide less assistance to others, weakening informal risk sharing.

In both cases, the level of risk sharing itself affects households’ willingness to migrate. The results of these two papers suggest a broader policy implication: informal insurance may be an important factor to determine if, and when, people adopt new income-generating methods.
b. Economic effects in migrants’ destinations: Developing countries are rapidly urbanizing because of migration and population growth. Urbanization has the potential to increase countries’ productivity, but it also brings many challenges: Do people find jobs? How do they decide where to live?

In "Transportation, Gentrification, and Urban Mobility: The Inequality Effects of Place-Based Policies" (in draft form), Clare Balboni, Gharad Bryan, Bilal Siddiqi, and I examine the introduction of a new mode of public transportation—the Bus Rapid Transit (BRT) system—in Dar es Salaam, Tanzania. We explore whether poorer households benefited from the improvements in commuting or whether they were, instead, pushed out of their neighborhoods by rising rents. For our research, we followed 1,700 urban residents over four years. If residents moved house, we surveyed them in their new location (and surveyed the new inhabitants of their former buildings). We use this data to understand how the BRT impacts where people choose to live and work. We find no evidence of a “gentrification effect”; poor households that lived near the BRT before it was constructed experienced a welfare gain of 9.5% while richer households that lived near the BRT experienced a welfare gain of 12%. We have secured funding to further explore the effect of neighborhood choice on economic outcomes through two sets of experiments: a spatially conditional cash transfer and a BRT ridership subsidy. We have piloted both of these experiments and will resume fieldwork after Covid-19.

Because people often migrate to places where they have few connections, my work, funded by the NSF (co-PI, NSF SES-1530791), also explores hiring practices in urban settings. In "Network-Based Hiring: Local Benefits, Global Costs" (in draft form), with Arun Chandrasekhar and Alessandra Peter, I study, theoretically, the impact of information frictions. We examine whether entrepreneurs prefer to hire their friends (whom they already trust) over strangers and the effect that this has on firms’ ability to expand and thus on economic output. In ongoing work, we are testing our theory in the field. We have set up a bicycle courier franchise in Bangalore, India, to study the relationship between network hiring (in which migrants and poor people have fewer connections) and firm size.

c. Economic effects of migration on the overall economy: In "The Aggregate Productivity Effects of Internal Migration..." (Journal of Political Economy, 2019), Gharad Bryan and I ask whether increasing migration leads to higher aggregate productivity by allowing people to work where they are most productive. We craft a model based on empirical evidence on the relationships between migration and wages. In the model migration is costly and people sort into locations according to their comparative advantage. We estimate the model using 40 years of microdata from Indonesia. We then simulate what would happen if migration costs were reduced to the level of the United States, which we take as a low-friction benchmark. We find modest gains (of the order of an increase of 8% in GDP) but significant heterogeneity (the areas that gain the most would see gains of over 100%). We take this to suggest that the first-order effects of facilitating migration on economic gains are not transformational. However, well-targeted regional policies, such as building roads to connect isolated regions, may have a large impact on people living in those areas.

II. The second strand of my work explores the determinants of migration. The canonical model predicts that people migrate if returns outweigh costs (Harris & Todaro, 1970). My research addresses the determinants of each side of this equation.

a. Costs to migrating: In "Border Walls" (R&R at Review of Economic Studies), Treb Allen, Cauê Dobbin, and I study whether the construction of 700 miles of fence on the Mexico–United States border affected migration flows between the two countries. The US–Mexico border is the most-crossed international border in the world. However, because much of this migration takes place outside legal channels, measuring it has proved challenging, especially at a fine geographic level. We solve this challenge by using confidential administrative data, the Matrícula Consular database, which measures
migration between Mexican municipalities and US counties. Exploiting the spatial variation of fence locations along the border, we find that migrants were less likely to travel along routes where the fence was constructed. Accounting for general equilibrium effects, we compute the overall change in the number of migrants and trace the impact of this migrant shock on labor market outcomes for local workers and other migrants. We estimate that the wall reduced migration by 46,000 people per year but led to no gain in the income of US workers.

In "The Effects of Roads on Trade and Migration" (R&R at AEJ: Applied), Jaqueline Oliveira and I quantify the effect that road construction has on migration. This work adds a new dimension to the literature that shows that road building increases GDP by facilitating trade (Allen & Arkolakis, 2014; Donaldson, 2016). We study the case of Brazil, where, in 1960, the government built a new centrally located capital city and subsequently constructed a new highway system to connect this new metropolis to cities throughout the country. Our analysis uses rich data on migration patterns to show that the travel time by road is a key determinant of where, and if, people migrate from one location to another. We then estimate a general equilibrium model where both migration and trade are costly. We find that while the main welfare effects of roads occur through the goods market (91% of the gains), the total increase in welfare is 10% higher if the impact of migration is included.

b. Returns to migrating: In ongoing work, Gharad Bryan, Shyamal Chowdhury, Mushfiq Mobarak, Joeri Smits, and I study the heterogeneity in returns to migration and how migration decisions respond to private information on returns. We piloted the research design in Eastern Indonesia among rural households that face seasonal poverty. We offered prospective internal migrants either “low” or “high” subsidies to migrate. Some of those who received “low” subsidies were surprised with a “high” subsidy after making a migration decision. We found suggestive evidence that workers who receive a “high” subsidy at the start earn less income in the city. This finding is consistent with our hypothesis that higher subsidies induce people who are less suited to migrate to leave. We have secured funding for the full-scale version of this project in Myanmar. Fieldwork will commence after Covid-19.

Teaching and Service: Teaching is an integral part of my life as a scholar. At Stanford, I have taught a graduate course on development economics (Econ 215, 2014–2021) and two undergraduate courses: Introductory Economics (Econ 1, 2014–2016), a class that attracts approximately 200 students, and Development Economics (Econ 118, 2020–2021). I have also co-organized the development seminar (Econ 315) and the informal “Development Tea” workshop for graduate student work-in-progress.

I believe that it is essential for graduate students interested in development economics to gain fieldwork experience. Over the last six summers, I have sent ten students to the field (seven to Tanzania, two to Armenia, and one to India). I encourage them to develop their own projects and establish needed contacts. Four of these students have successfully gained funding to develop their research (and more will likely in the coming year).

I am an active member of the Stanford community. I have served on the committee of eight Ph.D. students, with another four underway. I have advised 18 undergraduates and supervised one undergraduate thesis. I also seek to disseminate my research to a broader audience. I have co-organized the SITE conference on development economics since 2015, and in 2018, I co-organized the inaugural SITE conference on migration, bringing together scholars from multiple fields. Additionally, my work was cited in The Economist and The Washington Post, and I was interviewed by CNN and NPR’s Planet Money. I am grateful to participate in the intellectual and institutional communities at Stanford that shape me as an economist.