Research and Teaching Statement

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Longer version can be found here:

I am a development economist whose research seeks to improve our understanding of the migratory processes of the poor. I focus on two aspects of migration:

- I. *The effects of migration:* When people migrate, what happens to them, the origins they leave, the destinations they arrive in, and the overall economy?
- II. *The determinants of migration:* What are the individual, community, and national factors that facilitate or discourage migration?

I take a broad perspective, studying many different types of movement: migration across international borders, permanent and temporary migration within countries, and within-city residential choice. I employ diverse methods, depending on what the research question requires. I conduct randomized controlled trials (RCTs), collect original data, and analyze secondary data, guided by economic theory. As cause and effect are not always distinct, a key component of my research agenda is developing general equilibrium models of the economy and taking these models to data. This enables me to study the complex general equilibrium effects present in the movement of labor as well as to undertake policy-relevant counterfactual analysis.

I. THE EFFECTS OF MIGRATION: When people migrate, what happens to them, the origins they leave, the destinations they arrive in, and the overall economy?

a. Effects at the origin: Households in low-income countries often rely on other households for financial assistance because formal markets for credit and insurance are generally missing (Townsend, 1994; Udry, 1994). Migration could undermine the strength of such network connections, or it could improve income diversification in the network. In two papers, I study how temporary migration interacts with the provision of informal insurance.

In "Endogenous Risk Sharing and Temporary Migration in Village India," (2019, JPE), I model the joint determination of risk sharing and migration, assuming the supply of informal funds is constrained by limited commitment (Kocherlakota, 1996; Ligon, Thomas, & Worrall, 2002). I estimate the model using the new ICRISAT panel of households in South India. I find that, in this context, the introduction of migration has reduced informal risk sharing. I also find that, overall, the insurance provided by the network reduced the amount of migration. This finding has policy implications: a policy that reduces the income risk in the village may crowd out migration and informal insurance. By simulating the effect of the Indian government's rural employment guarantee program, I show that the welfare gains of introducing the policy are 50–70% lower once the endogenous migration and risk-sharing responses are accounted for.

In "Migration and Consumption Insurance in Bangladesh," joint with Costas Meghir, Mushfiq Mobarak, and Corina Mommaerts, (*R&R*, *Restud*), we study the effects on informal risk sharing after households in the village were randomly offered subsidies to migrate during the agricultural lean season (Bryan, Chowdhury, & Mobarak, 2014). We find that, in this setting, an exogenous change in the ability to migrate increased informal insurance. We document this result by showing that the correlation between income and consumption (a measure of risk sharing) decreases in response to the randomized experiment. This change is not driven by a change in savings, nor is it due to measurement error. It is also corroborated by responses to hypothetical questions about access to help from friends and family.

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. In the Bangladeshi setting, the migration destination is particularly risky. The risk-sharing network provides insurance. This amplifies the effect of the migration subsidy and hence crowds in informal risk sharing.

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In the Indian setting, this channel was not as prominent. The primary effect of migration was crowding out informal risk sharing; risk sharing also substituted for migration and so reduced migration. The results in these two papers therefore suggest a broader policy implication: informal insurance may be an important factor determining if, and when, people adopt new income-generating methods. In some cases, because of obligations to transfer some of the returns, informal insurance may reduce the take-up of new methods to generate income. In others, by providing a safety net in case of failure, informal insurance may increase take-up.

b. Effects in the destination: Developing countries are rapidly urbanizing because of migration and population growth. Urbanization has the potential to increase countries' productivity, but also brings many challenges: How do people decide where to live? Do they find jobs? In ongoing fieldwork, I am studying urban labor and housing markets to answer these questions.

In Dar es Salaam, together with Clare Balboni, Gharad Bryan, and Bilal Siddiqi, we are studying whether the introduction of the Bus Rapid Transit (BRT) system, a new mode of public transportation, will lead to more employment, higher wages, and higher house prices. We have fielded baseline (January 2016), midline (August 2017), and endline (August 2019) surveys. We have also planned two sets of experiments — a spatially conditional cash transfer and a BRT ridership subsidy — to generate exogenous variation in residential choice and BRT use. Funding for this research is from the IGC, 3ie, the World Bank, and Stanford.

In NSF-funded research (co-PI, NSF SES-1530791), Arun Chandrasekhar, Alessandra Peter, and I are studying the impact of information frictions, such as the inability for managers to monitor their staff, on firm size. The presence of information frictions may also affect whether employers are willing to hire people, such as migrants, with whom they lack social ties. We have set up a bicycle courier franchise in Bangalore, India, to study these questions. We are also exploring their willingness to pay for more capital to expand their businesses.

c. Aggregate effects: In "The Aggregate Productivity Effects of Internal Migration..." (2019, JPE), Gharad Bryan and I ask whether increasing migration would lead to higher aggregate productivity by allowing people to work where they are most productive. Motivated by empirical relationships between migration and wages, we write down a model where migration is costly and people sort into locations according to their comparative advantage, taking into account general equilibrium congestion and agglomeration forces. We estimate the model using 40 years of microdata. We then simulate, within the model, 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 important heterogeneity — the areas that gain the most would see gains of over 100%. We take this to suggest that, to a first order, the gains from facilitating migration are not transformational. However, well-targeted regional policies, such as building roads to isolated regions, may have a large impact on the lives of people living in those areas.

II. THE DETERMINANTS OF MIGRATION: The canonical model predicts that people migrate if returns outweigh costs (Harris & Todaro, 1970). My research studies both sides of this equation.

a. Costs to migrating: In our paper, "The Effects of Roads on Trade and Migration," (*R&R*, *AEJ:Applied*), Jaqueline Oliveira and I ask whether road building facilitates labor market integration by enabling migration. We study the case of Brazil, which built a new centrally located capital city, Brasilia, in 1960, and subsequently constructed a new highway system connecting Brasilia and cities throughout the country. Using state-level data that spans before and after Brasilia, we show that the elasticity of migration to Euclidean distance decreased after Brasilia. Our main analysis then uses rich data on migration patterns, coded to the municipality level, to show that the travel time by road is a key determinant of where, and if, people migrate. We then quantify the additional benefit of roads, over and above the oft-studied role of

infrastructure in facilitating trade (Allen & Arkolakis, 2014; Donaldson, 2016), by estimating 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 estimate of the total benefit is 10% higher if the migration effects are included. Accounting for migration also induces heterogeneous benefits of infrastructure: when it is not costless to move out of an area, welfare is no longer equalized across space, as in the case of models without barriers to migration.

In our paper "Border Walls," joint with Treb Allen and Cauê Dobbin, we study whether migration flows between Mexico and the United States responded to the construction of 700 miles of border fence on the Mexico-United States border. We are using a new source of data on migration flows, the *matrícula consular* (consulate ID cards) database, which measures migration between Mexican municipalities and U.S. states. We examine whether migratory flows between specific origins in Mexico and specific destinations in the United States changed after a fence was built along some, but not all, of the U.S.-Mexico border. We find a strong negative elasticity to an increase in travel time. The second part of the paper then computes the overall change in the number of migrants in both origins and destinations, and traces out the effect of this migrant shock on labor market outcomes for both local workers and other migrants. The third part of the paper then uses these reduced-form facts in a general equilibrium framework to compute the incidence of the fence shock for groups of workers, categorized by educational attainment and nativity.

b. Heterogeneity in the return to migrating: In ongoing work, joint with Gharad Bryan, Mushfiq Mobarak, and Shyamal Chowdhury, we are studying the heterogeneity in returns to migration and how migration decisions respond to private information on returns. We are running a two-stage RCT in Eastern Indonesia amongst rural households that face seasonal poverty. Prospective internal migrants will be offered either "low" or "high" subsidies to migrate. Some of those who receive "low" subsidies will be surprised with a "high" subsidy after they have made a migration decision. We will compare the employment outcomes of workers who were randomly given different incentives to migrate, with the surprise treatment controlling for any income effects of the high subsidy. This research has been funded by Evidence Action through its "No Lean Season" initiative.

III. TEACHING: I have taught three classes at Stanford. The first is Introductory Economics (Econ 1). The second is undergraduate Development Economics (Econ 118). The third is Econ 215, part of the PhD sequence in development economics. I also co-organize the development seminar (Econ 315).

The syllabus for Econ 1, which covers introductory microeconomics and macroeconomics, primarily follows standard introductory textbooks. I have incorporated many research examples into this class, especially ones involving development economics and applied microeconomics. Econ 118 covers development major topics, such as health, education, and finance. For Econ 215, I designed the syllabus to focus on macro-development. The class broadly covers "misallocation." We focus on markets for land, labor, and capital, and discuss microeconomic evidence for the presence of market imperfections. We then tie this empirical evidence to aggregate models of the economy. I also introduce students to the tools needed to estimate quantitative spatial models and show them how to incorporate experimental and microeconomic data into these quantitative frameworks.

I believe it is important for students, particularly those studying development, to gain real-world experience. Over the summer of 2016, I sent five students to the field for the summer (two to Tanzania, two to Armenia, and one to India); two of these students have been successful in gaining funding to conduct their own research based on the contacts and experience they gained. Over the summers of 2017, 2018, and 2019, I provided fieldwork opportunities for six students in Tanzania. In the coming years, I plan to continue providing similar opportunities to graduate students. I also plan to integrate undergraduate students into my research through utilizing programs at Stanford, such as SCID, that support undergraduate research experience.

IV. WORK BY THE AUTHOR

- 1. Morten, M. (2019). Temporary Migration and Endogenous Risk Sharing in Village India,. *Journal of Political Economy*, 127(1), 1-46
- 2. Bryan, G., & Morten, M. (2019). The Aggregate Productivity Effects of Internal Migration: Evidence from Indonesia. *Journal of Political Economy*, 127(5), 2229-2268
- 3. Morten, M. & Oliveira, J. (2019). The Effects of Roads on Trade and Migration: Evidence from a Planned Capital City. Revision requested, AEJ: Applied Economics
- 4. Allen, T., Dobbin, C., & Morten, M. (2019). Border Walls. NBER Working Paper
- 5. Meghir, C., Mobarak, M., Mommaerts, C., & Morten, M. (2019). Migration and Informal Insurance. *Revision requested, Review of Economic Studies*

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