COLLECTIVE REMITTANCES IN MEXICO AND BEYOND: A MODEL FOR THE FUTURE?

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**Abstract**

Mexican migrants in the U.S. are one of the largest diasporas of the modern era and an important case study for transnationalism and development. Collective remittances are remittances that emigrants pool towards developmental goals in their home community. Collective remittances are a small fraction of total remittances, but in partnerships with their federal and local governments Mexican emigrants partially fund public goods and infrastructure development in their home communities. Mexico's experience with collective remittances is influential and has shaped migration and development practice around the globe. The following chapters present an analysis of collective remittances in Mexican communities and link the data and theory from Mexico to other nations and emigrants around the globe. The analysis finds that Mexican migrant's wages in the U.S. are the strongest predictors of collectively funded projects. Migrant's wages are consistent with a motivation to diminish future migration by improving home towns and providing jobs. The comparison between Mexico and other diasporas demonstrates that motivations are indeed a useful lens for applying the knowledge and observations from one diaspora to another, but also identifies that important affordances for migrants to organize and partner are absent from the model, including geography, ethnicity, and international politics. Motivations and their interactions with community history and economic context are one of the least understood aspects of collective remittances, and the results of this dissertation help fill this notable gap, but the absence of political-geographic and ethnic aspects in remittance motivation theory remain a shortcoming.

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# Chapter 1

# Introduction

Mexico today is a precedent for migration-driven development and in particular collective remittances. Collective remittances are individual donations that migrants channel through organizations and collectively provide to their hometown or country for developmental purposes (Burgess, 2005). Collective remittances are not new, nor are they limited to Mexico. In Mexico collective remittances expanded from small localized relationships into a partnership between migrants, their communities, and the federal government. Mexico has become one of the most prominent examples of migrant-state partnerships in benefit of developmental goals, and their success has attracted attention from researchers and policymakers seeking to replicate the results. Naive adoption of methods and policy from Mexico into other contexts is likely to have poor results. In what follows, this dissertation will explore what makes collective remittances to Mexico unique, and what elements are generalizable to other contexts.

Mexico's relative success reflects 1) the large Mexican-US economic and social differences across an expansive shared border, 2) Mexico's federal level efforts to implement migrant friendly policies, and 3) the culture of Mexico's diaspora. Of these the first is the most exogenous because it represents international and geographic influences. The second and third items represent political and cultural relationships that are shaped by both exogenous and endogenous influences, meaning they are shaped by external factors but also have unique aspects that do not generalize.

Collective remittances to Mexican communities fund local development projects (Orozco, 2000, 2003; Portes & Zhou, 2012) and cultivate social and political investments from migrants and communities (Burgess, 2005; Fox & Bada, 2008). The income may also help preserve community cultural and familial bonds by allowing rural families, who might otherwise be forced to move to urban centers, to preserve their lifestyles (Grindle, 1988). "Collective" refers to the fact that through these remittances no single migrant funds development, and that regardless of transmission methods migrants pool these remittances to accomplish something. How collective remittances are spent, however, is often negotiated and managed by only a few migrants in cooperation with community and government agents. It is often the case that migrants have differences among themselves and with government agents over how collective remittances should be used.

Mexican communities and hometown associations often use collective remittances for public goods, but other nations and emigrants prioritize different migration and development strategies. The diasporas of other nations often use a different set of methods for funding development that are neither philanthropic nor centrally organized but nonetheless depend on collective action. A broader definition of "remittances for development" that includes savings and investments may be more inclusive (Schüttler, 2008). Collective remittances are one aspect in the constellation of migration and development and for each diaspora may have a different relationship to other aspects of that constellation.

The volume of collective remittances are difficult to assess because they often move through informal channels, or are lumped with other types of remittances. Estimates of collective remittances to Mexico are about a quarter of a percent of family remittances (Bada, 2011; Córdova, 2013). Collective remittances to Latin and Central American nations are 1% or less of the region's total remittance flows (Vargas-Lundius, 2004), and global estimates of collective remittances also are approximately 1% of total worldwide remittance flows (Hostettler, 2006). Analysis can use different methods or definitions for collective remittances, and communities can use different channels for transfer and systems for managing collective remittances. The ambiguity in defining and identifying collective remittances is one obstacle to research in this area.

A key feature of Mexican emigrant's participation in collective remittances is their cooperation

with government bodies back in Mexico. The most important vehicle of cooperation is *tres por uno*, or 3x1, that matches each collective remittance dollar with 3 more dollars provided by the municipal, state, and federal levels of government. *Tres por uno* involves actors both domestic and international and builds upon migrant's transnational lives, organizations, and culture. The primary goal of 3x1 is development of less wealthy communities with high migration. *Tres por uno* commands the second greatest share of social welfare funds, behind only the cash transfer program *Oportunidades. Tres por uno* obtained fresh injections of funds in 2012 (Ángela Fúnez, 2012), and as of 2014 34% of Mexican municipalities were active in the program (Duquette-Rury, 2014). From 2002 to 2008 total funds channeled through 3x1 into development increased from 424 million to 1700 million (Duquette-Rury, 2014; Simpser, Duquette-Rury, Company, & Ibarra, 2016). During that time period 3x1 funds comprised up to 20% of the public works budget in 67% of the participating municipalities, between 20% and 50% of the budget in 25% of the municipalities, over 100% of the public works budget in 8% of the participating municipalities, and in some communities 3x1 is the only source of funds for public works (Duquette-Rury, 2014; Orozco & Welle, 2005).

Collective remittances can be a useful resource but are not exempt from abuse or politicking. Collective remittances, despite the benefits they provide, have significant non-collective ulterior motives. Better organized and wealthier communities better direct and exploit collective remittances to advance their personal and community goals (Aparicio & Meseguer, 2011). Municipalities loyal to the majority party are more likely to benefit from *tres por uno* grants (Aparicio & Meseguer, 2011), and political maneuvering can influence project selection (Aparicio & Meseguer, 2009; Meseguer & Aparicio, 2009). Interviews with the program administrators, local politicians, and migrants suggest that government officials use *tres por uno* to finance personal political objectives (Aparicio & Meseguer, 2012). Migrants also may have personal motives driving their participation in collective remittances, and some developmental projects may benefit some migrants and families more than others, but no research seems to exist on this aspect. Little also is known of how existing developmental conditions influence collective remittances, only that community wealth has a bell-shaped relationship with collective remittances (Aparicio & Meseguer, 2011).

In addition to monetary support, collective remittances bring public oversight and migrant's

personal engagement (Goldring, 2004; Zamora, 1998; Burgess & Tinajero, 2012; Burgess, 2012; Orozco & Welle, 2005). Migrants have always participated in local development (Rempel & Lobdell, 1978; Stark, 1980; Lucas & Stark, 1985) but today states and third parties are more involved than ever before and cooperating with migrants and communities to achieve developmental goals (Collyer, 2013). Outside influence can also introduce undesirable and divisive influences, and it is not uncommon for migrants and communities to resist external help (Flores-Macías, 2012; Mason & Beard, 2008). Despite these drawbacks evidence suggests that 3x1 improved recipient communities compared to controls (Kajima & Gonzalez-Ramirez, 2012), and that the help migrants provide for community development can be valuable (Merz, 2005; Merz & Chen, 2005; Zamora, 2005).

Development is a vague term and the expectations may vary for what development entails. Mexican emigrants will have different goals and expectations than Moroccan emigrants or Indian emigrants. Each nation is subject to different global and international experiences, and within each nation different classes of people and emigrants have different ideas for development. The Mexican diaspora has produced a culture and programme of migration and development that another diaspora may not be able to reproduce. Mexican emigrants enjoy extraordinary circumstances that helped that diaspora to explode in size while maintaining a strong transnational presence, and in such an environment Mexican emigrants began institutionalizing migrant's role in development by the mid 20th century (Bada, 2014). Within Mexico there exist differences between communities in the accessibility to developmental help and what development means (Mason & Beard, 2008). Migrants, moreover, differ from their communities and states and often desire quality of life improvements whereas communities and states prefer construction and restoration of infrastructure (Mason & Beard, 2008; Villacres, 2009). Each actor can hold a different vision for development dependent upon their position, status, resources, and goals. Some actors obtain greater benefit from migration and development while others bear a greater amount of the cost and responsibility (Delgado-Wise & Guarnizo, 2007).

Expanding the meaning of development decenters the responsibility for "migration and development" away from migrants exclusively to incorporate multiple sectors including migrants, government, and finance. Ignoring what development means to migrants risks using migrants as pawns in

highly opportunistic development schemes (Vezzoli & Lacroix, 2010). Each diaspora have it's own political relationships with their home and host states that often implicate the cultural meaning of development and migrant's role in the process, and subgroups within a diaspora may have methods and preferences that differ from the larger diaspora. Some indigenous Mexican communities employ traditional governing mechanisms that obligate migrants to help out; migrants may not enjoy the requirements but understand them to be an important social symbol (VanWey, Tucker, & McConnell, 2005). Development from migration focuses upon home communities, but migrant's status in the host nation is an important factor, and migrants with social and economic security in their host nation are more likely to transnationally engage with their homes (Bilgili, 2016). Prioritizing quick policy answers for migration and development ignores the heterogeneity of emigrants, their diasporas, and communities.

Diaspora also defies definition but scholars generally agree that a diaspora displays a few important characteristics. Migrants of a diaspora share a memory of dispersal and an idealized collective memory of the homeland, retain an ongoing connection to the homeland, maintain strong group consciousness, and integrate only with great difficulty (R. Cohen, 2008; J. H. Cohen, Rios, & Byars, 2009; Brubaker, 2005). A diaspora also implies an element of antiquity. New communities of migrants possess too short a history. Initial migrants may return or integrate and provide no foundation for a diaspora to form. State migration and development policies that target broader financial behaviors of migrants–including remittances, savings, and investments–do not require a diaspora. But state policies designed to engage collective transnational behavior depend on a diaspora with rich social connections.

Other states and diasporas will take Mexico as a role model in their own migration and development endeavors. El Salvador, for example, obtained $20000k USD from the World Bank to help implement a social development fund modeled upon Mexico's popular remittance matching program *tres por uno* (D. R. Agunias & Newland, 2012). Migrant activists of the Zimbabwean diaspora cite Mexico as an inspiration for the formation of Zimbabwean hometown associations to assist with development (Gonouya, 2012). Worldwide many states have implemented co-financing for development partnerships with migrants, including Mali, Somalia, Colombia, El Salvador, Peru,

France, Netherlands, Haiti, and Philippines (Duquette-Rury, 2014). A relationship between migrants and home governments seems to be the rule, not the exception, and Mexico's successes are likely to influence many of these existing forms of migrant activism and civil society.

Efforts to replicate Mexico's success must be cognizant of the contexts, culture, and elements that support collective remittances from Mexico's migrants. El Salvador's effort encountered significant distrust between state and migrants that often led migrants to withdraw from participation in the remittance matching programs (Burgess & Tinajero, 2012; Burgess, 2012; Flores-Macías, 2012; Popkin, 2003). Policies designed to leverage and help direct collective remittances must respect that this resource belongs to migrants. Mexico's 3x1 program exists along side a complex arrangement of organizations and actors that include Mexico's federal and municipal governments, migrants and community civic organizations, and external organizations that help finance *tres por uno* (Bada, 2011, 2014). The agents involved in Mexico's 3x1 operate together, sometimes cooperatively and sometimes adversarially, to select projects, allocate funds, and oversee the project and the other agents. Future efforts to work with collective remittances around the globe must understand what motivates migrants to participate and how structural characteristics enable or constrain the forms and flows of collective remittances and migrant activism.

The dissertation structures the analysis using motivations of remittances. What motivates collective remittances is critical for a policy perspective. We know a lot about the organizations and mechanisms that facilitate collective remittances, but not a lot about the motivations that animate the donors (Sidel, 2008) Guided by remittance theory, an analysis of the relationship between collective remittances and community socioeconomic structures provide yield deductive inferences of the motivations that drive migrants to donate to collective remittances.

Remittance motivation theories generally do not separate structural from individual elements. Community level data are intrinsic to remittance motivations models, the theories make statements about individual motivations, but make predictions only of group outcomes. So, individuals are aggregated to their communities, and the models look for patterns in group behaviors. Group level analysis is a strength of remittance motivation models; they are based on individual dynamics but abstracted to a group level of analysis where models are easier to generalize among different

structural contexts. The structural elements include migration history and wages in the home and host community. These simple metrics are a product of many others, and capture the effects of migration over time, and the effects of inflation and currency risk on migrant's wages.

Along with the motivation of migrants, contemporary collective remittances are distinguished by the motivations of the home states. Collective remittances reflect one aspect of a type of transnationalism centered on state-migrant relationships (Collyer, 2013). States and migrants recognize the mutual benefits of partnerships, and have the ability to adapt and learn. Migrants learn about partnership strategies from other migrants, and states also have goals and will adapt methods used by other states. The analysis of collective remittances that follows will depend upon state creativity and an exchange of ideas between migrants and states (Iskander, 2006, 2010; Collyer, 2013).

The dissertation will fit a model of collective remittances to data collected by the Mexican Migration Project (*MMP154*, 2016). The model is founded upon remittance motivation theory, a theory of migration history, and an international lens focused on state-migrant relationships. Chapter two will discuss the background literature and theory. Chapter three will describe the data preparation, formal hypothesis, and method and provide model results. Chapter four checks the models from chapter three in an international scope and identifies the challenges of broadening a model from one context to others. Chapter five summarizes the key elements of the analysis and characterizes a use case that could benefit from an application of the model and what we will learn throughout the analysis. The remainder of chapter one discusses collective remittances within the larger practice of migration and development, and which relevant aspects are covered in this dissertation, and which are saved for another time.

At stake in the analysis is the generalizability of Mexico's experience with collective remittances to that of other diasporas. Mexico is steeped in a migrant culture that may hold the key to its success. Terms like "migrant network" and "migrant culture" are frustratingly abstract but the concepts represent the broad social changes migrants engender in their home nations and abroad due to networks forming around migration activities (de Haas, 2010a; Massey, 1990; Massey, Goldring, & Durand, 1994; Massey & Espinosa, 1997). The networks help migrants to cross borders and find jobs abroad, and sustain migration for long periods and overtime alter home communities.

Generalizing Mexico's experiences with collective remittances require generalizing that nation's experience with migrant networks.

## 1.1    Migration and Development

Migration for development paradigms emerged around the 1960s and have since that time oscillated between optimism and pessimism (de Haas, 2010b, 2012). A spectacular rise in global remittance flows began in the early 1980s and exploded in the 1990s and reignited debates in migration and development studies that had began in the 1970s. In the 1990s the uneasy consensus seemed to be that migration is often the best option in a bad situation but could in some places be deleterious to development goals (Binford, 2003; J. Cohen, Jones, & Conway, 2005). Now in the 21st century the practice and theory of migration and development are delinking development from return (de Haas, 2010b), and collective remittances renewed again the debate within the social sciences over the developmental potential for remittances. Sending states now explore policy options that allow emigrants to contribute to development while remaining indefinitely abroad.

People care about collective remittances because they also care about migration and development. Policy makers are often committed to a migration for development program. Migration exists regardless of if it is deleterious or beneficial to development so for some leveraging migration for development is obligatory. The literature coming out of actively applied and policy-oriented organizations reflect this commitment.

Migration for development theory focus on the localized effects of emigrant's remittances, including collective remittances, but migration for development policy typically is guided by a strategy at the national scale. Nations with geographic access to well developed neighbors commonly use economic, foreign, and migration policy to encourage emigration and support a diaspora abroad; examples include Mexico, Morocco, and El Salvador. Emigration has many benefits at a national scale, migration reduces labour supply and injects large sums of foreign currency into the economy. Without remittances nations like Mexico and Morocco would have trouble remaining solvent.

In theory the goal of migration for development is to replace the dependence upon migration with

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sustainable local economies. In reality migration often supplies only short term poverty alleviation and quality of life improvement, and it isn't clear that economic or social remittances offset the loss of human capital (Adams, 2011; de Haas, 2010b). Both theory and policy lack a clear and obtainable goal for migration and development because scholars and policy makers often fail to consider the goals of migrants. Remittance matching programs are an effort to solve this problem, and appear to be relatively successful in Mexico, but in El Salvador and Morocco programs are more commonly defeated by state's unwillingness to share power in project management (Burgess & Tinajero, 2012; Burgess, 2012; Popkin, 2003; Flores-Macías, 2012). Even under ideal conditions in Mexico, however, remittance matching programs do not appear to contribute to state-level development (Bada, 2016), but do seem to improve recipient communities (Kajima & Gonzalez-Ramirez, 2012). Remittance matching programs may not be the best option for any given diaspora or home state looking for a way to utilize migration for development.

Emigrant's first priority is personal and family gain and security. Developmental considerations are always subject to emigrant's primary motivation. A rural community is not, generally, a location with investment opportunities and migrants may not see themselves as developmental workers (Lacroix, de Haas, & Vezzoli, 2010). Economic investments, for example in a workshop or factory, may be ill-suited for the location and face difficult competition or logistical barriers (Schüttler, 2008; Iskander, 2006). Investing in a factory can cost tens of thousands of dollars, and it may be a waste of resources attempting to prop up community economies with emigrant's remittances. Public goods are prone to inappropriateness or frivolousness. Emigrants might wish to fund a sports facility to enjoy during return visits, while the community may suffer from decaying water or power infrastructure. Where migrants fail to invest in long term community needs it may reflect their uncertainty in the community's future. Quality of life projects combined with poverty alleviating family remittances relieve economic and cultural distress in the community for the life of the migrants. While this is disappointing for migration and development, it is perhaps reality for some emigrant communities.

While emigrant endeavors to contribute new economic development often fail (Bada, 2016), no research seems to exist comparing the failure rate of emigrant collectively supported enterprise to

a control group. Case studies also show that while emigrant investments are often unwise, they are usually emotional and reflect a desire to remain in a community and maintain traditional and sustainable manufacturing techniques (de Haas, 2006; Vezzoli, 2009; Vezzoli & Lacroix, 2010). Another seemingly irrational investment common among emigrants are houses back home. Houses may be used only rarely or even never at all, and emigrants may not wish to rent them out because they are unable to manage a rental property. But real estate presents one investment that emigrants might better understand and can control, and no matter what happens an emigrant can always return to a house. Migrants often lack sound investment advice, but Mexico provides limited business and investment information resources for migrants. Whether in infrastructure, enterprise, or real estate, emigrant investments are usually sentimental in nature. Discovering how states can best serve emigrant needs to support and encourage emigrant enterprise is an important task facing migration and development scholarship.

Programs like *tres por uno* provide additional funding, oversight, and accountability for projects. Emigrants and their governments together tackle more ambitious goals. *Tres por uno* did not arise via analytical rationale but rather as a political need (Iskander, 2006, 2010). Programs arose in Mexico, Morocco, and India just as state leaders required emigrant's political assistance. Political ambitions may have provided the motivation and resources for *tres por uno*, but the efficacy of this program isn't an accident. The ideology behind *tres por uno* is couched in migration and development theory and philosophical principles of equal participation.

Although collective remittances usually funnel to communities via hometown associations, emigrants of some diasporas are comfortable giving on a national scale, to their governments or NGOs. For some emigrants extra-community scales provide better opportunities for their remittance dollars, including investments and donations. National-scale strategies align nicely with pro-emigration policies, but they also solve some key problems with community-based migration and development. First they remove the community as an opportunity for political manipulation. Second they reduce wasteful spending in communities unsuited for certain types of investments. Third, the national scale organization is potentially longer lasting than community-based organizations that tend to disappear with each generation of migrants (Haller & Landolt, 2005; Orozco, 2003). A final, but

ambiguous, result is that national strategies facilitate greater pooling of resources The downside of national-based policies is that they seem to work against the principle that small is beautiful (Schumacher, 1973). Many of the Mexican hometown associations are geographically federated so that collective remittances via HTAs already are pooled and managed at scales beyond each community. When communities cooperate among themselves they can achieve larger projects that benefit the entire area. Supra-community organization can achieve similar impacts by expanding the scope of emigrant's development efforts while still keeping communities as the primary unit.

Today researchers are laying the groundwork to incorporate new findings on the extent and nature of migrant transnationalism, in particular collective remittances and emigrant's preferences for investing in their home nations. An important if pedestrian insight is that there is so far no mechanism whereby migration automatically results in development (Papademetriou, 1991). Migration theory evolves to better explain new data. Neoclassical models of migration could not explain remittances or persistent transnational linkages between emigrants and their homes. In the 1980s it became clear that remittances are a major cash flow among areas of the world and an important component of immigrant's home-nation-household income. New Economics of Labour migration helped to better explain the newly available evidence. Historical-structural theories of migration emerged in the 1950s and 1960s with pessimistic interpretations of migration, but often discounted evidence of migration's benefits. Concurrent with NELM, migrant network theories also began to reapply historical-structural methodology to identify persistent transnational linkages between migrants and their homes. Today migrants and their states are finding new ways to leverage migrant networks for development without requiring return migration.

## 1.2   Beyond Mexico

In the work "Creative State: Forty Years of Migration and Development Policy in Morocco and Mexico" Iskander compares the history of migration and development between Mexico and Morocco (Iskander, 2010). Therein Iskander argues that any strategy designed to generalize and identify "best practices" in migration and development policy is incomplete if not inadequate. Pol-

icy and normative culture surrounding a state and its diaspora is a product of creative labour and engagement between state and migrants and is not generalizable or transferable. For Iskander how migrants and state establish policy is just as important as the policy goals. Applying policy adopted from one state or diaspora to another is not likely to yield successful results because the other state and diaspora have not engaged in the same creative struggle to produce the policy.

Mexico's diaspora is not monolithic. *Tres por uno* emerged from Zacatecan initiatives, and other migrant heavy states also have state-specific programs outside of 3x1 (Bada, 2011). Not all of Mexico's states have a long migration history. Oaxaca lacks the migration history of Mexico's major emigrant states, and only since the 1980s has Oaxaca contributed large shares to Mexico's migration flows. Despite a short history of migration and no past of state engagement with migration and development, Oaxaca today boasts well developed migrant civil society (Mason & Beard, 2008). Oaxacan emigrants share national and international contexts with other migrants of Mexico and can draw upon the experiences and sustained partnerships with the federal government without requiring the migration history wherein Mexico's migrants established these precedents. *Tres por uno* emerged from state, not national, politics but all of Mexico's diaspora share enough context to benefit from the program.

Each diaspora has used different methods based upon size, history, demographics, and socioeconomic contexts. The qualities and quantities of collective remittances vary for each diaspora and a simple formula may not be appropriate for all cases. Iskander highlights that migration's structural and cultural contexts do not naively generalize. Emigrants of Mexico and Morocco have different histories of migration and state relations, as well as different types, methods, and styles of transnationalism and collective engagement. Nonetheless 3x1 is a successful program across many Mexican states, even those without a long migration history, and some aspects of the program and Mexico's general experience with collective remittances should be applicable to other nations and diasporas. This dissertation addresses the difficulties of generalization by analyzing migrant motivations.

Mexico's history and scale of migration set it apart from other diasporas and the organizing motivation for this research is to discover the aspects of Mexico's collective remittances most responsible for that nation's experience and to investigate differences in methods other diasporas use

to organize migrants towards community development. The results will be useful to those who wish to understand application of state or international initiatives to leverage collective remittances. The gulf between how policy emerges and what aspects of policy are generalizable is a matter of scale. A long term, macro scale, plan involving migrants is necessary if states wish to mitigate the deleterious effects of migration and engage the diaspora in productive development (Heredia, 2006).

Collective remittances are not a new topic and have significant coverage in transnationalism literature. Collective remittances is an artificial term with little meaning outside of a small community of researchers, but many others investigate phenomenon with properties relevant to collective remittances. Migrants of most diasporas in the late-modern U.S. maintain financially involved relationships with their families and communities (Glick-Schiller, 1999). What is new in the recent literature is the concept of planned government involvement, cooperation, and support. Past transnationalism research brought to light the decentralized role of the state in diaspora engagements in the homeland, but today states across the globe are taking note of the practical outcomes of the dynamics described in transnational theory, and the states are seeing new avenues of planned state involvement in migration for development. It's not clear that many governments can or should engage a diaspora or what aspects of a diaspora or the home nation are important when planning an initiative. It's also not clear if Mexico's success will continue or if its government will sustain funding lines for *tres por uno* and follow on programs.

## 1.3 Conclusion: agenda

This introductory chapter demonstrated that in Mexico there exist a wide range of structural contexts and behavioral strategies that migrants and communities use when solving developmental problems and cooperating in these endeavors with the state. The following chapters will explore the variety of contexts in Mexico and how these affect migration and development, before moving on to examining collective remittances and migration and development around the world. The dissertation proceeds through the following chapters:

**chapter 2** Review of the Literature

**chapter 3** Exploration of collective remittances to communities within Mexico

**chapter 4** Comparison of Mexico's diaspora and collective remittances to those of other nations

**chapter 5** Theoretical synthesis and Conclusion

The literature review in the second chapter will detail a model for discretizing and describing the stages that communities seem to go through as they are changed by migration. This analysis uses stages of migration to summarize the effects of migration. A model for stages of migration facilitate analysis of migration and also permit the analysis to more efficiently investigate other aspects and questions relevant to collective remittances. The literature review will discuss the difference between stages and history of migration, and review the history of migration and collective remittances in Mexico. The literature review ends with a review of theory relevant to analysis of collective remittances, including migrant networks, transnationalism, and the motivations that drive remittances.

Chapter three focuses upon Mexico and collective remittances in Mexican communities and establishes some high-level facts about Mexico's collective remittances. That analysis will explore theory and available data for factors that explain the existence of migrant-funded development projects in Mexican communities. The results of chapter three also guide interpretation of the results of chapter four's comparative analysis.

The international comparison of chapter four reinterprets the analysis of Mexico within the context of other major diasporas. The comparison begins with Central and Latin American states. Emigrants from almost every Central and Latin American states migrate overwhelmingly to the U.S. so that these diasporas share many things in common with Mexico's due to a common host state. Nations of Central and Latin America also share many possibly relevant cultural and political contexts. The international comparison then moves on to the remainder of the world to explore diasporas that share little in common with Mexico. The globe is divided into major regions and the comparison selects one important and characteristic diaspora from each region. This provides a broad contextual base for the comparative analysis. Throughout the comparison the analysis seeks counterexamples and important differences that point to where theory based on empirical analysis

of Mexico's experiences with collective remittances may not generalize.

The concluding chapter will review the results of the analysis of Mexico's collective remittances in terms of the comparison between Mexico's diaspora and that of other Latin American nations. The conclusion will use the results to argue that future diasporas engaging in development must be more comfortable with a broader focus than community organization and collective remittances. The major contribution of migration and development in the 2000s was the delinking of development from return; the conclusion will argue that the next major step in migration and development must be decentering migration and development from the community to include migration motivations and national needs.

Mexico today is an exemplar for successful migration and development policy. Emerging diasporas without a history and institution of migration are especially keen to follow Mexico's example. Sometimes it is a state, like El Salvador, wishing to replicate a program like *tres por uno*. Sometimes it is a diaspora, like the grassroots of Zimbabwean emigrants, following the example of Mexican and other HTAs. Most Mexican HTAs are small and serve a single community. Not all diasporas share a community focus, for example Colombians most often donate through NGOs or national migrant organizations. But in Mexico some HTAs also surpass the community, and are federated into larger organizations that serve regions. Migration and development among different nations and diasporas share as many commonalities as differences, and today analysts and policymakers are attempting to understand these differences and apply methods the emerged in one diaspora to other diasporas.

# Chapter 2

# History and theory of migration, transnationalism, and collective remittances

This chapter reviews the history of Mexican-U.S. migration, introduces a stage model of migration, examines how transnationalism supports progression of migration stages, and discusses motivations that drive migrants to remit. The review describes how and why the Mexican diaspora and state institutionalized collective remittances, how migrant's lives in the host nation impel collective remittances, and discusses theories of motivations that drive remittances. With this foundation the next chapters will proceed with analysis of structural determinants of collective remittances and the motivations of migrants to contribute towards collectively funded developmental projects.

Migration history is a distinct concept from migration stages. Mexican migration history is the unique series of events and responses from Mexican and U.S. populations that have shaped Mexican migration to the U.S. Stages reflect the cumulative effects of migration upon migrant's home communities. History is unique but stages represent a generalizable process that we can apply anywhere with sufficient migration. Later chapters will cover the particulars of each stage and the

interaction between stage and migration and development theory.

Stages structure analysis by discretizing and characterizing important ranges in the cumulative effects of migration through time. Stages are an important theoretical description of the progressive effects of migration and also provide a method for quantitatively comparing communities with different migration histories. The effects of contemporary migration depend upon the migration history of a community, and stages help to delineate and explain the seemingly contradictory effects of migration from one community to another. Some of the initial literature that foreshadowed a stage-based model come from Stark (Stark, Taylor, & Yitzhaki, 1986), who identified two phases in the impacts of migration upon inequality characterized by the prevailing migration selection effects. Early stages experience a different selection processes than later stages where the socioeconomic environment has been altered by the injection of economic, social, and human capital obtained by community members via migration. Massey (Massey, 1990; Massey et al., 1993; Massey & Espinosa, 1997) and later Jones (Jones, 1998, 2013) provided further extensions to the stage model of migration and its effects. Understanding the stages of migration where collective remittances arose among Mexican emigrants will also help in comparing and generalizing Mexico's experience to other diasporas of the globe.

Transnationalism is the interconnectivity between migrants and their homes and the evanescence of the state's power in regulating cross-border relationships (Basch, Glick-Schiller, & Blanz-Szanton, 1994). Transnational studies grapple with the evolving nature of migrant's relationships to their homes and struggle to find definitions that usefully demarcate the contemporary forms of transnationalism without constraining their variety. The analysis of collective remittances will require a wide scope transnationalism that encompasses casual and daily transnational behaviors and reconsiders the role of home community and state in migrant's transnational engagements.

Migrant motivations provide a link between analysis of collective remittances in one context, and generalization of that analysis into policy and theory applicable anywhere. Where migration stages generalize the progressive structural effects of migration, migrant motivations generalize the goals and rationale of remittances. Motivations are difficult to know or prove, and analysis of motivations depend upon deductive inferences from migrant's behavior.

## 2.1 History

Mexico's diaspora enjoys many geographical benefits that have shaped the history of Mexican-US migration. The economic difference between Mexico and the U.S. is among the largest of any two neighboring nations. Still Mexico is not an underdeveloped nation and many families have the capital necessary to fund migration. Wage differentials, distance, and availability of funding capital are some of the most important factors that determine who migrates and why. Mexico's development in combination with it's proximity to a much greater developed neighbor provides a very favorable environment for migration.

The seed of modern Mexican-American migration may exist in the late 19th century when U.S. corporations began using Mexico's *enchagadore* system to recruit Mexican peasants into jobs in the U.S. Massey argues that early railroads structured recruitment and emigration of peasants because contractors would travel via railroad and recruit from the villages closest to rail stops (Massey, Durand, & Malone, 2002). Indeed a distinction of Massey's theory is that through all the waves of migration from Mexico to the U.S. the foundations laid by the historical rail and recruitment patterns continue to explain substantial aspects of contemporary migration patterns. Rails continue to play a role in contemporary migration too, with many migrating north via freight trains (Amnesty International, 2010).

The Mexican civil war of 1910 generated a surge of emigration that eclipsed the steady but slow northward movement of labour-seekers and recruits. This first wave of Mexican migration coincided with an economic boom in agriculture and transportation industries in the American southwest during and after World War I. Between 1910 and 1930 as many as 1.5 million individuals crossed into the U.S. from Mexico. Movement was at first relatively unrestricted but shortly the U.S. passed the Immigration Act of 1917 that required entrants to the U.S. to pay a head tax, pass a literacy test, and undergo a medical exam. In 1924 the U.S. established the Border Patrol to enforce the Immigration Act, however people easily found routes to enter surreptitiously. The Great Depression broke the first wave of Mexican migration as many people of Mexican-origin voluntarily or forcibly relocated to Mexico. But even during the economic hardships of the 1930s U.S. businesses

continued to recruit Mexicans into U.S. agricultural jobs, especially in Texas (Camarillo, 2007).

The second wave of Mexican migration begins in 1942 when World War II creates labour shortages in the U.S. The U.S. implemented the *bracero* program to provide Mexicans with temporary work visas. By the end of WW II U.S. agriculture was dependent on labour from Mexico and the *bracero* program remained in place until 1964. The number of migrants that entered during this time is an order of magnitude greater than the first wave.

The cessation of the *bracero* program marks the final waves of Mexican migration that are characterized by a quickly increasing flood of migrants and often substantial undocumented border crossing. As the *bracero* program ends Mexico is experiencing a fitful industrialization that has drawn people from rural farms to urban centers but often left them unemployed and displaced as Mexico's stuttering urban economies are unable to absorb the incoming labour supply. Many people decided to venture northward and enter the U.S., illegally if necessary.

The historical migration destination is Texas, but the surge of migration since the 1960s has been overwhelmingly into California. However in the 1980s and 1990s the social environment in California turned hostile to Mexican migrants (Camarillo, 2007). In response migration flows diffused and branched out in greater proportions to Colorado, Illinois, North Carolina, Florida, and Georgia, among other states.

At the turn of the 20th century Mexican net migration to the U.S. peaked. The growth of Mexican migration through the 20th century was so steady that the percentage of Mexicans as all migrants and percentage of Mexican-born among Mexican-Americans has increased year-over-year every decade until the 21st century (Camarillo, 2007). In the mid-2000s Mexican-U.S. migration fell to net zero migration, and today net Mexican immigration hovers around zero, but is slightly negative and may decrease further.

Now, too, the diversity of Mexico's U.S. diaspora is greater than ever before and possibly ever will be. Migrants from the initial years of the three decade long surge in Mexican migration are now elderly, and the generational range is as wide as it may ever be. Income diversity is great, with some migrants very wealthy while others and especially the newest are often poor. Migrants may also have children and even grandchildren in the U.S. so that generations span not only across

migrants but also within their U.S. born families. Still despite rapid filial growth the proportion of Mexican-origin as a total of the Mexican ethnic population in the U.S. has grown for three decades.

Mexican immigrants through the 1960s and 1970s more often were short term visitors as compared to immigrants from later decades who more often became permanent residents. In 1986 the U.S. congress passed the Immigration Control and Reform Act with the intent to curtail undocumented migration, and in 1990 passed the Immigration Act that better defined numerical limits, a preference system for migrants, immigrant status, and pathways to naturalization. As a result of efforts to control migration the environment become more difficult for seasonal migrants who then more often decided to settle permanently.

The proximity, volume, and antiquity of Mexico's U.S. diaspora have lent it several characteristics that may have helped Mexico's migrants to construct and maintain such close relationships with their homes. These characteristics may have also helped migrants to establish and eventually institutionalize some of the relationships with their home community and nation.

Through it's history the Mexican-U.S. diaspora faced hostilities from both Mexico and the U.S. governments. In fact, most diasporas of the world have faced such antagonism, and what distinguishes collective remittances from the diasporic and transnational philanthropy and engagement of the past is the involvement and cooperation of the state. Mexico's diaspora reached a critical mass of transnational culture fostered by increasing naturalization of Mexican migrants in America and a greater openness to the diaspora from the Mexican state. Mexican migrants today have the facilities available that allow them to live in two nations, culturally and politically if not physically. Unlike the two contradicting narratives, one that legalization will decrease transnational engagement and, two that transnational engagement will decreases assimilation–it appears that naturalization, assimilation, and transnational engagement all support each other (Goldring, 1999; Guarnizo, Portes, & Haller, 2003; Snel, Engbersen, & Leerkes, 2006). Transnationalism is an intrinsic aspect of immigrant identity, rather than an alternative to assimilation (Massey, Williams, Axinn, & Ghimire, 2010). The narratives, nonetheless, can become self-supporting symbols that galvanize immigrants into transnational activism (Tarrow, 2005). Contemporary transnationalism, furthermore, transcends national and state boundaries. Dual citizenship is a feasible option for

many migrants, and migrants do not choose between states but instead between ethnic and civic allegiances (Bloemraad, Korteweg, & Yurdakul, 2008). Home state economies and politicians are now dependent on migrants, and this dependence provides the impetus for home state cooperation with migrants that support collective remittances.

### 2.1.1    History of collective remittances in Mexico

In Zacatecas, Mexico, 1986, government and migrant organizations established a social development fund that would match all collective remittances that migrants donate for development in their home communities. President Salinas, eager to capture migrant political support, quickly expanded the Zacatecan initiative to the federal level by adding matching funds from the federal government. This became the *dos por uno* program because every migrant peso was matched by both state and federal governments.

Roots of *dos por uno* and migrant HTAs extends back to the 1960s when migrants establish Federación Clubes Zacatecanos del Sur de California, a federation of Zacatecan HTAs. Prior to the Zacatecan federation, small hometown clubs existed in their modern form by the 1950s, and even after the Zacatecan federation hometown clubs did not gain in popularity until the 1970s (Villela, 2014). In the 1980s the relationship between the federation and the Zacatecan state became institutionalized when then governor, Genaro Borrego (1986-1992), reached an agreement whereby HTAs and the state government would jointly fund public works. In 1993, under the direction of the Salinas administration, the Mexican Ministry of Social Development extended the Zacatecan initiative to other states, thus establishing *dos por uno.*

Zedillo, who succeeded Salinas presidency in 1995, later terminated the *dos por uno* program, but again the Zacatecan state continued the program under a new arrangement. In 1997 the new Zacatecan governor, Ricardo Monreal, managed to establish the *tres por uno* program that involved municipal, state, and federal governments in cooperatively funding community development projects. In one year's time the program was managing five million dollars and 93 projects in 27 Zacatecan municipalities (Bada, 2003).

In 2001 President Fox resurrected *dos por uno* as *tres por uno* wherein municipalities also match

migrant pesos for a total of three pesos for every one a migrant donates. Since the 1990's migrants and government at all levels in Mexico are getting more organized and proactive in managing development through transnational spaces (D. Agunias, 2009; D. R. Agunias, 2009; D. R. Agunias & Newland, 2013; Ionescu, 2006). Mexico has been implementing reforms to institutionalize and formalize migrant-state relations, and migrants are organizing and acting with political intent to protect their rights as extraterritorial participants in their home nations. In 2006 the Inter-American Development Bank (IADB) began to support 3x1 with loans, and in 2012 the IADB provided a loan of 21 million dollars (Ángela Fúnez, 2012). From 2009 to 2012 collective remittances averaged 36 million a year, and the Mexican government's contribution about 100 million a year.

Following their political and developmental success in the 1990s collective remittances received significantly increased attention from governments, NGOs, and the social sciences. The World Bank's 2006 Global Economic Prospects report gave special attention to collective remittances and conclude that collective remittances often better serve community needs and are more transparent than other funding methods but that they may not scale up well or have the capacity to support larger development plans (The World Bank, 2006). Around 1999 El Salvador's FIDSL began reaching out to its diaspora and by 2007 had obtained $20000k USD from the World Bank to establish the *United for Solidarity* program based on Mexico's *tres por uno* (D. R. Agunias & Newland, 2012).

The motivations for Mexico's remittance matching programs begin within Mexican politics (Alarcon, 2002; Iskander, 2006, 2010). There exist two main reasons. First, many Mexicans and migrants found the Salinas 1988 election to be fraudulent. Salinas was eager to reach out to migrants to establish some rapport, and the Zacatecan *dos por uno* program was both successful and popular among migrants. Second Mexico and the US had entered negotiations for the NAFTA treaty and Mexico wanted to solidify it's relationship with the migrant population, which prompted Mexican officials to establish the Secretariat of Social Development (SEDESOL) that later would manage the *dos por uno* and *tres por uno* programs. Mexican migrants and their networks were able to support the organization needed for collective remittances, and the state had an incentive to cooperate.

Hometown associations are not extensively studied but since about 2002 research began quickly

accumulating. Most of the research uses Mexican data and cases, but recently scholars have also mapped the emergence of HTAs and their features in other nations including Colombia and Dominican Republic HTAs in New York City (Portes, Escobar, & Radford, 2007), Sri Lankan emigrants in Milan (Comola & Mendola, 2014), and Ecuadorians in Spain (Boccagni, 2010), Ghanians, Surinamese, and Moroccans in the Netherlands (Nijenhuis & Zoomer, 2012), and Afghans in the Netherlands (Daniëls, 2015). HTAs are often based on a core alliance of local families who govern the organization and draw support from hundreds of other local migrants (Orozco & Welle, 2005). HTAs of Mexican society are increasingly political machines, and community leaders will establish an HTA to compete for politicized development objectives (Villela, 2014). Early findings on the qualities of Mexican HTAs identified the following characteristics (adapted from (Orozco, 2003)):

- Mexican HTAs are small philanthropic organizations

- Their organizational structure is commensurate to the groups' proposed goals

- The activities focus on basic health, education and public infrastructure

- The resources raised are relatively small in volume

- Donations are significant to the recipient localities

- Partnerships with governments enhance development goals

- Mexican HTAs average lifespan is about 10 years

- Mexican HTAs begin as organizations of family or personal acquaintances and expand

What once was an emergent phenomenon, collective remittances, today are identified and actively encouraged by nations and international organizations alike as a new solution to underdevelopment (Kapur, 2004). State governments and international organizations are developing new ways to engage migrants and leverage migrant's resources and expertise. Social development funds and remittance matching programs utilize existing transnational engagements between migrants and their communities in order to bring state and international resources together with migrant's localized knowledge to implement local development. The manifest goals of these efforts is development,

but partnerships between migrants and state often initially are motivated by political ambitions. Migrants are political tools and development is a politicized incentive.

## 2.2 Migration stages and formation of networks

History and growth of migration are important factors in the formation of migrant networks and transnational communities. *Stages of migration* is a conceptual means to classify communities by migration history and experience. Stages of migration are a discrete sequence of changes to a community that occur due to the growth of migration. Each stage also brings changes to local socioeconomic structures. Remittance dollars can have big impacts on local economies, and newly wealthy migrants form a broad class of migrant elite that upend existing social strata. Stages also proxy the growth of migrant networks and organizations that support collective remittances. Stages of migration describes how the influence of migrants and remittances vary through time. A model for the stages of migration facilitates analyzing the effect of migration's changes overtime upon collective remittances.

To the extent that a generalized relationship can exist between migration and geographical locations, it is intuitive to envision a relationship that progresses and unfolds through a series of stages. Some migration theory conceive a circular relationship between migration and its local contexts, but the concept of *stages of migration* imply that migration at particular levels will alter its community context in a specific way. Communities in the same stage will be similar in ways other than migration, due to sharing the qualitatively similar effects of that stage of migration.

While it is self-evident that lesser rates of migration must precede greater rates of migration, this progression may be punctuated by exogenous factors or community and migrant behaviors before settling into a stable equilibrium. Communities are pulled or pushed into stages of migration by both exogenous and endogenous factors and initial arbitrary directions can become entrenched as the first migrants assist their friends, family, and neighbors to move abroad and find work (Massey, 1990). One may liken exogenous factors to *structure* and endogenous factors to *agency*. Which of these factors is dominant will have important implications for our understanding of collective

remittances. Structure implies that the stage of migration is beyond the control of community and migrants, and any relationship between stage and collective remittances may also arise exogenously. Agency implies communities and migrants strategically choose the stage of migration they expect will have optimal returns for the entire community. Obviously, both structure and agency act to push and pull a community into a stage of migration. The concept of chain migration recognizes the endogenous growth of migration networks (MacDonald & MacDonald, 1964), and in concert with social capital theory explains how migration patterns become self-sustaining (Massey, 1990).

It isn't clear that anyone has observed a community move from one stage to the next, or a migration network grow in real time. Surprisingly little research exists on how migrant networks form, their shape, or their types. Social networks do not form randomly, but clump around central nodes and gatekeepers (Jackson & Yariv, 2007). Migrant networks seem to be preferential attachment, and can take over a decade to develop and mature (Comola & Mendola, 2014). Migrant networks facilitate migration and apply normative social pressure for younger people to join the ranks of migrant workers (Garip & Asad, 2016). Empirical tests of the progressive effects of migration rely on personally-related event history data, and the division of cross-sections of communities into the different stages, under the assumption that earlier stage communities could grow to become like those in the later stages. No community in the Mexican Migration Project data, at least, appears to have grown in this fashion. Analysis of event history data has shown that communities did at one time have lower migration prevalence than they do today and that migration has steadily grown through time (Massey et al., 1994; Massey & Espinosa, 1997). The theories regarding the progressive effects of migration require assumptions that, while testable in principal, have not been tested within existing time frames.

Lacking sound inductive tests, the stages model of migration rest upon deductive inferences drawn from theories of international migration drivers and their long term effects. The two major families of international migration theory are neoclassical and historical-structural theories. Neoclassical theories include the extensions of New Economics of Labour Migration, and historical structural theories include World Systems Theory and migrant network theories. All of these theories arose to explain aspects of migration that previous theories could not. The stages model of

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migration identifies patterns that the major theories do not explain and offers updated mechanisms that better predict observations.

The earliest theories of international migration emphasized push and pull factors. Ravenstein, perhaps the first theorist of international migration, speculated that differences in wages, healthcare, and other life necessities compelled people to cross international borders (Ravenstein, 1885). Ravenstein anticipated the basic elements of neoclassical theory of economic migration, which models migrants as self-interested, rational, and optimizing agents who respond to international economic differentials (Harris & Todaro, 1970). The shortcoming of Neoclassical economics isn't a focus upon agency over structure, but rather failure to consider the effects of non-labour markets upon migration and the failure to consider higher units of analysis, like families or communities.

World Systems Theory (WST) asserts that interference from wealthy core nations into the less developed periphery nations creates an environment conducive to migration (Wallerstein, 1974). WST priorities the effects of structure. International structures exogenous to the community shape migration patterns and moderate the effects of migration. WST claims that migration causes brain drain, divestment of local populations, disintegration of local cultural and familial bonds, and a forced dependency on migration. WST is structurally-focused and provides little room for agency, but allows nations to traverse the global hierarchy with great difficulty and under special circumstances. In history cases from South Korea, South Africa, and the BRIC nations, to name a few, provide important examples of nations ascending to higher ranks in the global order.

New Economics of Labour Migration (NELM) is a relatively recent theory of migration seeking to expand neoclassical economic theories. NELM allows for non-labour markets to influence migration, for example insurance or credit markets (Stark & Bloom, 1985). In addition to labour and wage differentials, people may also migrate to obtain funds in an environment of non-existent credit markets or provide insurance in the form of diversified income. NELM incorporates new markets by extending neoclassical analytical scopes to the family and community. Concepts like family insurance or diversified income make no sense in the individualistic economically-rational framework of Neoclassical economics. NELM favors agency over structure, but with it's multilevel analysis also foreshadowed the historical-structural theories that built upon WST.

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Cumulative causation is a historical-structural theory, like WST, but also synthesizes many aspects from NELM. Cumulative causation builds upon ideas from chain-migration (MacDonald & MacDonald, 1964; Myrdal, 1957) and describe how migrant networks emerge from personal relationships between kin and friends that grow with migration and spread across entire communities (Massey, 1990). Migrant networks spread information and resources that lower the cost of migration. Migrant networks are central to models for the progression of migration stage. Most models seem to assume migrant networks serve only to generate migration, but they may have more complex functions. Social networks can both support and burden resource-seeking individuals (Portes, 1998; Calvó-Armengol & Jackson, 2004), and established migrants might want to impede additional migration is to control labour supply and prevent downward pressure on wages at the destination (Stark, 1995). Historical-structural contexts remain the primary factors in cumulative causation, and the theory coopts migrant agency and network formation within the accumulation of migration experience. The goal of cumulative causation was not to explore the nature of migrant networks, but rather demonstrate that because of social networks migration is not easy to control using policy tools.

The multilevel and network-centric properties of NELM and cumulative causation provide the foundation for a stages model of migration. Historical-structural theories of international migration proxy the growth of migrant networks with the growth of migration experience. Migration stages build upon historical structural theories by identifying clusters of communities that share many similarities brought on by the effects of migration. Throughout, however, the basic deductions of chain migration and neoclassical theories are what explains why people migrate and how migrants encourage and maintain migration flows from their homes.

Inequality often acts as an umbrella for the broader socioeconomic effects of migration, and a test for the stages model of migration. The impetus for an extensible stage model of migration comes from the empirical observation that quantitatively different relationships exit between migration and inequality in different locations (Acosta, 2008). Some early studies found that remittances generate a new class divide between migrants and non-migrants but are more progressively distributed than most other sources of income and assistance (Mines & de Janvry, 1982), while others emphasize

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that remittances reach primarily wealthy households and magnify divides that might have been previously obscured (Lipton, 1980; Reichert, 1982). Stark et al. reconcile these contradictions by linking the derivative of inequality with respect to migration to the prevailing migration rates (Stark et al., 1986). They find that in communities with low migration prevalence inequality rises with migration, but that the opposite is true in communities with high migration prevalence. This theory of selectivity by migration prevalence set the foundation for the classification of communities into two stages of migration prevalence

In communities with low migration prevalence and no established migrant networks, new migration is uncertain and risky. In this stage only the relatively wealthy can afford to migrate, and most remittances reach wealthy households resulting in greater inequality. The inequality increases and may force others to migrate in order to "keep up." But the first migrants brought back know-how and experience, and as more people migrate this base of knowledge and resources accumulate and become more widely available to everyone in the community. This has the *de facto* effect of lowering the costs to migrate, which creates additional incentives (Massey, 1990; Stark & Bloom, 1985). Non-migrants face greater relative poverty, but have access to the experiences of migrant friends and family. In this environment greater numbers from across a wider range of the socioeconomic distribution begin to migrate. This marks the transition from the first to the second stage.

In the second stage, migrant networks continue to grow around the experiences, knowledge, and resources of existing migrants. These networks lower costs and allow also the less wealthy to migrate and send remittances to their households (Massey, 1990). This lifts the relative wealth of poorer households and lessens inequality. As migration experience and income saturate a community, migration becomes a less attractive income source. Migration may become non-optimal for wealthy families, while less wealthy families continue to depend on the income (Mckenzie & Rapoport, 2007; Stark et al., 1986; Arslan & Taylor, 2012; Koechlin & Leon, 2007). Inequality drops again, as large portions of the socioeconomic distribution gain access to migrant income.

The two stages taken together in theory form an inverted "U" inequality curve and a sigmoidal migrant network density curve. Migration studies have produced contradictory findings regarding the effects of migration upon inequality. Investigations of the causal relationship between inequal-

ity and migration, using the same dataset but different theory and modeling methods, often will reach different conclusions. Garip (Garip, 2012) employs a Heckman selection model using the MMP dataset to investigate the effects of wealth upon selection into migration, and finds that initial migrants in first stage communities are more likely to come from poor households, while repeat migrants in second stage communities are more likely to come from wealthy households. McKenzie (Mckenzie & Rapoport, 2007) fits an instrumental variables model testing the hypothesis that migration prevalence non-monotonically alters the effects of wealth upon selection to migrate. McKenzie's model predicts that when migration prevalence is low migration will increase inequality overtime, but that at some point the relationship between migration and inequality inflects downwards such that in high migration communities migration will decrease inequality overtime. Garip's model suggests that wealthy households continue to use migration as an income source even after a community's social networks are saturated with experiences and assistance of migrants. McKenzie finds that at some value for the rate of migration the relative benefit of migration to the wealthy will subside. The two models are not necessarily contradictory. McKenzie's results support the stage model of migration, but Garip's results suggest that initial inequality in the early stages of migration persist even into later stages of migration.

A three stage model can resolve many of the contradictory findings of the two stage model. In the third stage many migrants have become relatively wealthy, and they create a new social class (Jones, 1998, 2013). In rural areas the third stage can upset the local social order, creating a class divide between migrants, especially legal migrants, and everyone else. In the third stage inequality begins to increase again. The wealthy migrant class may even buoy some rural communities to equal or surpass the average wealth of their more urban peers (Jones, 2013; Orozco, 2005). Thus, at advanced levels of migration the effects of migration on inequality can reverse yet again, and result in contradictory findings.

Stages can assist an analysis of collective remittances by controlling for the progressive effects of migration through time. Chapter three will show that the data is consistent with the stages models of migration, and will classify community stages by analyzing the data and developing a clustering model. Stages provide simple way to summarize the complex but structural ways that

migration shapes communities. Stages imply that there exist reasonably punctuated inflections or changes in the effects of migration and remittances upon a community. Stages also suggest large relatively constant spaces between points where effects of migration and remittances shift in size or direction, such that communities appear to cluster. It's also reasonable that communities do not advance through stages but instead enter a stable equilibrium in one of the stages.

## 2.3   Migrant transnationalism and civil society

A key theoretical contribution of transnational studies was to deprivilege the state as the regulator of migrant's relationships with their homelands. Transnational studies emphasize instead the role of non state actors, in particular migrants, in shaping international migration and remittance flows (Collyer, 2013). Home and host nations constrain migrant's abilities to live in and make political claims in either nation, and through policy and incentives states constrain or enable migrant's cross-border movements, transfers, and relationships. Transnationalism is how migrants cope with the structural and cultural demands imposed by the home and host state and societies. For example, transnationalism can be a response to a migrant's duty in their home communities, or an escape from the discrimination in the host nation (Lacroix, 2014).

Transnationalism encompasses a great diversification of form and content that confounds classification. Narrow or core transnationalism that is formal and institutionalized, and broad or extended transnationalism that is sporadic or casual (Itzigsohn, Dore, Fernandez, & Vazquez, n.d.; Guarnizo, 2003). Portes argues for limiting transnational analysis to individuals who regularly engage in transnational economic, social, and political activism (Portes, 2001, 2003). Most migrants do not live immersive transnational lives, about 6% of migrants are transnational entrepreneurs, 10-15% engage in regular transnational activity, and 20% occasionally transnational (Portes, 2003).

Collective remittances are by definition organized transnational activity focused on development (Schönauer, 2003). Migrant organizations and transnational civil society first existed within the U.S. in the mid 19th century (Cano & Délano, 2007). HTAs and migrant organizations committed to development are only the more recent in a series of forms of migrant organizations in the U.S.

Initial organizations often were political, religious, patriotic, or dedicated to sporting events and teams.

Collective remittances encompass both narrow and broad transnationalism. A few people take great responsibility as leaders, volunteers, and organizers, while most people casually contribute to collective remittances via the efforts of a small number of highly involved individuals. Migrants who do not satisfy Portes definition of transnational nonetheless contribute to collective remittances merely by attending events staged by HTAs in the host nation (Villela, 2014). An important function of institutionalization of collective remittances is to lower the threshold to participate in transnationally supported development. States encourage institutionalization with remittance matching and other programs, especially when programs are limited to formal organizations (Duquette-Rury, 2014). Collective remittances are defined by migrant's transnational behavior in the host nation, but it is equally important to consider the role of community and state outreach and policy in the home nation.

State-migrant partnerships reflect a new international paradigm and new forms of social engagement (Lacroix, 2014). Neoliberalization of trade policies between Mexico and the U.S. may have prompted a change of tone from Mexico's state towards its diaspora (Smith & Bakker, 2008; Villela, 2014). Neoliberalism exploded worldwide through the 1980s and 90s and may similarly explain the worldwide shift in tone from home states towards their diasporas. Through the last quarter of the 20th century remittances grew quickly and many states became economically dependent upon their diasporas (Popkin, 2003).

Institutionalization of collective remittances embeds the supporting transnational behaviors into emigrant society. Institutionalization of collective remittances refers to the formalization of the relationship between a state and diaspora in cooperation for collective remittances. Institutionalization of collective remittances efficiently facilitate individual contributions without requiring a high degree of involvement from all donors. Most people can contribute casually while dedicated bureaucrats and committees oversee the collection and implementation of collective remittances (Bada, 2011, 2014). Transnational activity today is fundamentally different from historical transnationalism. Collective remittances represent a new type of migrant-state transnational partnership. Transna-

tional studies emerged from the recognition of the deterritorialized nation-state, but contemporary migrant transnational activism is distinguished by partnerships and cooperation between migrants and their homes.

Migrant organizations usually establish and support initial transnational engagement. The foundation of migrant organizations exists in the everyday lifestyle struggles migrants face as foreigners in a host nation. How migrants establish or join organizations depends upon their experiences, age, and generation. Activism often begin with home community governance (Fox & Bada, 2008) and the nurturing of civil society and citizenship in the host nation (The Oaxacalifornian Reporting Team, 2013). In some situations migrants may bring organizational skills from their home communities, but younger migrants often learn organizational skills through civic engagement in the host nation, and then apply these skills to engagements with their home community (The Oaxacalifornian Reporting Team, 2013). Activism can bring about positive social change but initial motivations involve many factors. Emigrants organize as a means of belonging and managing status in their home communities, and collective remittances serve these goals (Villela, 2014). Migrant transnational activism often emerges from the struggles migrants face during their time spent in the host nation. Mixtec migrant youth in Los Angeles organize as a means to cope with their experiences in the U.S, especially with the symbolic violence inflicted by non-indigenous Mexican migrants (The Oaxacalifornian Reporting Team, 2013). Youth learn organizational skills in afterschool clubs that they will apply towards activism in support of greater civic rights in the U.S. and for transnational activism in their home towns.

Integration into a host society can dissolve filial bonds to home communities while strengthening community level engagement (The Oaxacalifornian Reporting Team, 2013). The act of integration can simultaneously create and destroy transnational spaces. The stability of integration provides a foundation for transnationalism, and the struggles of integration give migrants the skills and motivations to organize and maintain transnational lives (Al-Ali, Black, & Koser, 2001; Portes, Haller, & Guarnizo, 2002; Guarnizo et al., 2003; Portes et al., 2007). Integration into a host country supports home community engagement, of the migrants. Migrant's children, however, are usually less engaged with their home communities and nations, and future generations thereof are

increasingly disconnected from their national roots and less likely to be transnationally engaged. Future generations loose the motivation to organize with other migrant families or remain involved with home communities, but may also enjoy greater access to resources. Some members of migrant's future generations will reconnect to their family's home nation through nostalgic trade of goods specific to a home nation, tourism, and national or local investment. Like collective remittances, only a small fraction of migrant's future generations may engage in nostalgia trade, but they can support small specialized industries. Nostalgia tourism fosters nationalism and can result in follow on nostalgia trade or investment, and some nations sponsor nostalgia tourism to introduce later generations of migrants to their national heritage (Newland, Terrazas, & Munster, 2010).

In the short term transnational activism is directly dependent upon migrants, but in the long term sustainable transnational communities depend on both the migrants and their home communities and states. The phenomena of transnationalism is rapidly evolving and today home states and communities take part as actors equal to migrants in shaping transnational fields. Collective remittances transcend individuals and depend on group level dynamics between states, communities, and migrant's organizations. Structural and political factors are just as important for collective remittances as the transnational activism and motivations of individual migrants. Transnationalism is not a feature only of the lives of migrants, but is also an aspect of paradigms of organizational, international, and state policy.

## 2.4   Remittance motivations

The collective remittances literature lacks a thorough treatment of the relationships between the individual participants and the institutional directions of collective remittances. In particular, it is unknown if the individuals that comprise the mass of donors to collective remittances share the same economic logics that guide institutional decision making. Or if individuals become donors for social reasons unrelated to the economic logic that guides how communities, the state, and migrant organizations use collective remittances.

Theories that explain why migrants remit to their families provide a foundation for analyzing

migrant's remittances to their community. The *altruistic* motivation and it's inverse–the exchange motivation–seem to appear in literature more often than any other. Two other popular explanations are the *investment* and *strategy* motivations. The nature of collective remittances make these too different for most of the explanations for family remittances to be perfect analogies, although the altruistic motivation is largely congruent between family and collective remittances.

The altruistic motivation is simplest and states that migrants give money either independently from or inverse to economic factors. Giving that is independent of economic factors imply that migrants give because giving is the reward–altruism grants a "warm glow." Giving that is inverse to the usual economic-rational investment decisions implies that migrants are not just altruistic but sympathetic.

Opposite altruism, the *exchange* hypothesis states that migrant remittances are dependent upon economic factors. This hypothesis expects that migrants give more where there is stronger growth and greater inflation. The reason is that services are more expensive in stronger economies, so that if remittances buy services from family members then they should increase with economic prosperity in the home community. The exchange hypothesis links remittances to home community economic conditions.

The investment hypothesis states that remittances pay-off debt. Sometimes the debt is real, like money owed a coyote, but often it is the obligations that migrants owe their family, not only for migration but education and all the lifelong support a family provides. Families invest substantial resources into each migrant. The investment hypothesis states that remittances are commensurate with the size of the investment, but in this case that means merely the wealth of the family, since wealthier families can provide more support. The investment hypothesis is to family wealth much like the exchange hypothesis is to community wealth. For this reason also the investment hypothesis is not interesting for research of collective remittances that exist only at the community scale.

The strategy hypothesis states that migrants use remittances to deter future migration from their families or communities. This could, however, result in other communities or families sending more migrants of their own to exploit any demand for labour. Thus migrants must believe that employers favor people from the migrant's own family or community and can discriminate those

people from others. Within the strategy hypothesis migrants follow an economic motivation, but in reality migrants may wish to dissuade future migration for altruistic reasons. In one interpretation of the strategy hypothesis remittances are like bribes to not migration. Given their public nature, collective remittances more likely reflect a desire to dissuade future migration out of a sense of belonging (Orozco & Lapointe, 2004). Even so, all interpretations of the strategy hypothesis are about what migrants want. Whether out of a desire to belong or to protect wages, the strategy hypothesis makes a claim about what migrants desire, rather than what a community requires. A straightforward proxy for migrant's discretion is the money they have available through wages in the host nation. From a structural perspective, the strategy hypothesis describes one way that host state economic conditions can affect remittances through migrants.

Most motivations represent different sides of a single concept. Altruism and exchange are mutually exclusive, and both depend on how migrants respond to community wealth. The strategy hypothesis is compatible with either, because it represents how migrants respond to host country conditions, including wages and social status. Altruism and exchange reflect how migrants respond to home community, whereas strategy reflects how migrants respond to changes in the host state. Migrants can respond to events in both home and host state, so exchange and strategy motivations are consistent with each other. The strategy hypothesis requires some mental gymnastics, but the basic idea is that migrants 1) place a value on resources available in the host state, and 2) believe that additional migrants pose competition or a risk to host state resources.

Across different contexts emigrants and states may use very different methods of organization and have different developmental goals. Mexican emigrants prefer urbanization, paving, entrepreneurial, water, and sanitation projects (Duquette-Rury, 2014), Turkish migrants instead favor economic zones that facilitate new businesses or cross border trade, and Moroccan emigrants often take advantage of computer or medical equipment discarded in their host nation that is valuable for use in their homes. Different emigrants have different developmental goals and methods, but motivations may remain more consistent.

## 2.5   What's left out?

Some elements important for the future of collective remittances do not fit within the scope of an analysis of structural contexts and motivations. Some of these topics receive brief mention, but despite their relevancy are not investigated in the primary analysis.

Migrant activism that results in transnational activism often emerges from migrant's needs to confront issues of race and gender discrimination from both their host societies and fellow migrants (Curran & Rivero-Fuentes, 2003; Curran, Garip, Chung, & Tangchonlatip, 2005; The Oaxacalifornian Reporting Team, 2013). The organizations that ultimately facilitate collective remittances may begin as organizations that work to provide migrants with support in the host nation.

Transnational culture and the long term impacts of migration are dependent upon the demographics of those who migrate, especially with regards to gender (Levitt, 1998). Female migrants typically differ from their male peers in how they remember and relate to their home families and communities (Goldring, 1996, 2001), and how they integrate into their host society and participate in transnational relationships with their home (Itzigsohn & Giorguli-Saucedo, 2005). Transnational spheres are politicized spaces where social inequities are both reproduced and confronted. Women are often excluded from transnationalist initiation and innovation and are confined to the workforce of developmental activities (Drake, 2014). The individuals and families that sponsor and lead HTAs often do so in pursuit of political or entrepreneurial ambitions. The emergence of state remittance matching programs are correlated with a rise in inequality.

Collective remittances are politically charged and potentially a vessel for political power and new cultural values. While inequity from home nations can be perpetuated in transnational spaces, transnationalism also remits new cultural values. Collective remittances and transnational forms of political engagement, like binational voting, may also mutually support each other and enhance the political capacity of both. Indeed, the political potential of collective remittances may be key to sustainable transnationalism. A generalizable analysis of structural contexts and motivations of collective remittances will provide a better foundation to investigate the cultural and political role of collective remittances.

## 2.6   Conclusion

The contemporary transnational environment is distinguished by the role of states and other large, multi-scale, agents. High level actors more naturally observe and adapt the strategies of diasporas in one location for that in another; applying old innovations in new locations, or developing new innovations via analogy. The experiences of Mexico already inspire diasporas around the world, but the Mexican diaspora and state may also borrow from the experiences of other diasporas. The new migration for development is characterized, more than anything, by a greater flow of ideas between diasporas, the state, and their organizations.

The following chapters examine Mexico, it's diaspora, and the diasporas of other nations in light of the theories of migration and development, transnationalism, cumulative effects of migration, and the motivations of migrants who remit their money to their family, community, and nation. Chapter three will classify communities and regions of Mexico using stages theory and examine the relationship between the stages of migration and community contexts and the behavior of migrants. The analysis of chapter three prepares for chapter four that presents a broad comparison of diasporas around the world.

# Chapter 3

# Community context, migrant motivations, and collective remittances

Collective remittances start with the structural factors that create a need for migration, but ultimately are an expression of migrant agency, political effort, and social capital. This chapter begins with an analysis of the secular financial and labour aspects that drive migration originating in Mexico, and will then deduce what might be the motivations that drive migrants and hometown associations to commit remittances into collective goals rather than saving the money or sending it to their family. The goal of the analysis is to parse the structural and behavioral factors of which collective remittances are a function.

Structural factors include: history of migration, wages at destination, and local economy and development. Each of these elements have an important effect on the lives of migrants and community's history of migration but are not things people or communities have much power to change.

Behavioral factors include: the size of remittances and how these remittances are spent–e.g. on consumption, maintenance, investment, etc. These factors indicate something about migrant intent

and decision making. Migrants have some power to alter these behaviors so that they represent part of migrant agency.

Results indicate that migrant's wages are the most important factor for migrant's contributions to collective remittances. A relationship between migrant's wages and collective remittances reflect migrant's agency, and their wages are largely independent from structural conditions in their home nation. Migrant's wages have a stronger effect than structural factors represented by migration stage and domestic wages, and suggest that agency and motivations are more important than structural determinants for collective remittances. The relative strength of agency compared to structural factors vindicates the optimism that international organizations, states, and other diasporas show towards collective remittances.

The research tests two groups of hypotheses. The first group concerns migration history and community context. The second group concerns migrant's wages abroad, remittance sizes, and how families use remittances.

The first group of hypothesis focuses upon the community and tests the relationship between collective remittances and a community's stage of migration and average household wealth. The first hypothesis is the **migrant network hypothesis** that states that collective remittances result from the long-term effects of migration upon a community, most importantly the migrant networks that form from persistent historical migration. Migrants accrue social and political capital that manifests in the migration history, networks, and HTAs that provide migrants representation with municipal, state, and federal leadership. The second hypothesis is the **exchange hypothesis** and states that collective remittances purchase social and economic favors in the home community. Collective remittances are relatively less valuable in wealthy and well developed communities so that in wealthier communities migrants fund more public goods and projects to obtain the same degree of social favor.

The second group of hypothesis focuses upon the migrants and test the relationship between collective remittances and migrant's investments in the home community and wages in the host nation. The third hypothesis is the **investment hypothesis**. This hypothesis states that where more migrants invest remittances in business or real estate collective remittances will also increase

because they can often help support personal investments. The hypothesis lacks an analogue in family remittances, and looks for a relationship between collective remittances and other forms of active investment. The fourth hypothesis is the **strategy hypothesis**. This hypothesis states that migrants send collective remittances to help damp incentives for future migrants. This hypothesis is based on the similar strategy hypothesis for family remittances (Stark, 1995). Orozco surveys and interviews Mexican HTAs and finds that collective remittances often are meant to ease economic distress and dissuade future migrants (Orozco & Lapointe, 2004).

The four hypothesis found an empirical model of what shapes and motivates collective remittances. Literature establish the history, breadth, and benefits of collective remittances but why they exist at all and general applicability to any diaspora is not addressed in existing research. The success of Mexico's *tres por uno* program has inspired states worldwide to engineer social development funds to kickstart and support a culture of diasporic philanthropy (Orozco & Rouse, 2007; de Haas, 2007). It isn't clear, however, why collective remittances have worked for Mexico and if other nations and diasporas can truly replicate the elements responsible for Mexico's success. Future research and applied efforts to initiate and sustain collective remittances will benefit from better understanding why these remittances exist in the Mexican case and what made them work.

This chapter presents a lot of data and methods. The first section presents methods that readers may consult as necessary. The second section describes the procedure for classifying communities for migration stage. The third section tabulates communities by migration stage along with descriptive statistics and provides context for the models. The fourth section fits and interprets the models. The fifth section concludes the chapter.

1. data

2. methods

3. classification of community migration stage

4. descriptive statistics by stages of migration

5. models

6. conclusion

## 3.1 Data

Data comes from the Mexican Migration Project (MMP) (*MMP154*, 2016). Durand and Massey initiated MMP data collection to provide an alternative to federal migration statistics, which they believed did not faithfully characterize the true magnitude and profile of human movement between Mexico and the U.S. MMP data is sponsored by a partnership between Princeton and the Universidad de Guadalajara. Every year the MMP selects three or four communities in Mexico and randomly samples from among their households for survey data. At the time of writing, the MMP contains one hundred fifty four communities.

Massey designed MMP data collection using a method called the *ethnosurvey* (Massey, 1987). The ethnosurvey's defining characteristic is its combination of quantitative methodology with qualitative data collection styles. Rather than employ strict survey schedules, field workers fill in questionnaires using unstructured interviews. This allows field workers to chose when and how to ask each question, which can be especially effective for sensitive topics. Investigators choose multiple sites for data collection, and either survey the entire site or draw a representative sample. Multiple sites lend the data to multilevel analysis. Surveys also collect life-history data, allowing investigators to extend beyond cross-sectional analysis, to consider how past events influence present variables. Lastly, ethnosurveys should collect data from *parallel* sites. Parallel sites are in some way connected. The MMP inquires for the whereabouts of community emigrants who have not returned home, and then visits and interviews these individuals. These emigrants are *parallel* to the community home population, and are often permanent migrants who rarely return home, but nonetheless can indicate important qualities of migration patterns. Without parallel sampling these individuals would remain absent from the dataset. Massey asserts this combination of features yield superior data to that gathered using more traditional survey methodology (Massey, 1987)

MMP pilot surveys began in 1982, but it was not until 1987 that annual data collection efforts reached full swing. In 1987 the MMP held data from 4 communities within the states of

Jalisco and Michoacán, which historically supply the greatest volume of U.S. emigrants. Those four communities represented a range of urbanism and included a rural town of 6,100 inhabitants, and commercialized agrarian center of 9,900, a factory town of 9,400, and an urban barrio of 4,800 people located within the city of Guadalajara, Mexico's second largest city. By 2016 the MMP holds data from 154 communities, representing a range of community types, and spread across 22 of Mexico's states.

Within each community of the MMP dataset, researchers draw a random sample of 200 households, and interview each member using a semi-structured format. The questionnaire solicits detailed social and economic information on the household and each member. In addition to this information, researchers identify a head of household and collect from them detailed life history data on their all migrations and labor activities while abroad. During this process, field workers also ask about emigrants who have not returned home, and visit and interview also these individuals. It is clear that the MMP dataset applies each feature of the ethnosurvey method.

The MMP dataset has been essential for research over the past two decades yielding new findings on everything from Mexican-U.S. migration patterns, to the influence of migration upon inequality within home communities. Researchers outside migration studies also have used the dataset, making a testament to MMP's breadth and quality (see for example (Quinn, 2006b, 2006a). Life-history and household data has been valuable for exploring the effects of social capital and individual histories of migration experience upon current migration patterns. MMP also provides a range of community level data, which existing research has not fully used.

Given the MMP's temporal and international aspect, income data reflect different real values due to price inflation over time, or rarely deflation. Income earned in the US is also in a different currency than in Mexico and subject to different value fluctuations. The analysis standardize income data to a reference year using consumer purchasing index (CPI), using the Mexican Peso for income earned in Mexico, and US Dollar for income earned in the US. The MMP's data on Mexican income prior to 1998 is of poor quality, and in 1998 the question was revamped. Rather than attempt to clean or match the old data, the analysis omits and imputes income data for years prior to 1998. A later section will soon describe imputation.

## 3.2 Methods

This section briefly describes methods for categorizing data and fitting models. The section covers the following methods.

1. clustering

2. instrumental variables

3. imputation

4. bootstrapping

### 3.2.1 clustering

The analysis in this chapter uses clustering to identify the migration stage of each community. A cluster is a set of cases from the data that are similar in some respect. For example, communities in the same stage of migration should have similar rates, incidence, and history of migration. Many methods of clustering exist. Some examples include those based on geometry (k-means), graph-theory (hierarchical), probability theory (model-based), and even natural analogy (gravitational clustering.) This chapter uses model based clustering, which often uses hierarchical clustering for initialization.

Hierarchical clustering compares cases using a measure of dissimilarity and a linking criteria, and either iteratively combines (agglomerative) or divides (divisive) clusters until reaching some stopping criteria. Hierarchical clustering usually defines dissimilarity as distance between cluster centroids, and multiple methods of measuring distance exist, with euclidean distance the most popular. The linking criteria specifies the distance where clusters are combined or separated and, again, multiple linkage criteria exist.

Hierarchical clustering can group cases in a dataset, but also works just as well on rows of a correlation matrix. For correlation matrices, hierarchical clustering groups variables by their similarity of correlations with all variables; this is useful for seeing relationships among variables in the data.

Model-based clustering is so named because it is based upon probability distribution models–most often multivariate normal distributions. Model based clustering defines clusters as sets of cases all belonging to the same underlying probability distribution. The underlying probability distributions are mixed in the data, and the model based clustering finds the parameters of each distribution and membership of each case that maximizes the likelihood of the data. The most desirable properties of model-based clustering are that it optimizes both the number of clusters and cluster membership, but another feature is that it expresses the multivariate correlation among the underlying distributions, and resembles the generative properties of artificial data simulation.

Model based clustering is sometimes known as two-step clustering, because it uses the two-step process of the Expectation Maximization (EM) algorithm to find distribution parameters and case membership that maximize the likelihood of the data (Fraley & Raftery, 1998, 2002). Hierarchical clustering often will provide starting cluster memberships to initialize the EM algorithm. The "M" step of the algorithm then find maximum likelihood parameter estimates given cluster memberships, and then the "E" step recalculates cluster memberships given the parameter estimates. The algorithm proceeds, back and forth between the two steps, until parameters and cluster membership converge, so that they change little from iteration to iteration.

### 3.2.2   instrumental variables

Instrumental variables (IV) regression is a strategy for resolving endogeneity (Wooldridge, 2002). An instrument is a variable correlated with the endogenous variable but that has no independent relationship with the omitted or response variables. Instrumental variables regression essentially tests that, *ceterus paribus*, if changes in the instrument, operating through the endogenous variable, are related to changes in the dependent variable.

Models for the effects of migration often employ instrumental variables regression because in many models migration is correlated with unmodeled effects of geography, economy, and other confounding omitted variables. Instrumental variables resolve this problem by projecting migration onto an *instrument* that is uncorrelated with confounding variables. If the variance of the instrument is uncorrelated with the omitted variables, then the variance of the endogenous variable explained

by the instrument will also be uncorrelated with the omitted variables. IV regression essentially tests that changes in the instrument operate through the endogenous variable to effect the response variable. There can be no proof a variable is a good instrument, but often researchers have many good reasons for suspecting an instrumented variable is better than the original.

A popular instrument for the effects of migration is migration distance. The assumption is that as distance to destinations increase migration will decrease and that any omitted variables have no effect on this relationship. Migration distance requires a destination. For migration from Mexican communities, Woodruff tests both distance to the U.S. border and distance to train stations at different time periods using historical rail data (Woodruff & Zenteno, 2007). Garip similarly tests distance to U.S. border and distance to an airport and finds both have similar results (Garip, 2012).

The present analysis calculates distance as a weighted average of the distance to six different border crossing locations, one in each Mexican border state. The weights are a function of the number of border crossings at each border state from that community. For example if half of the migrants from a community cross in Baja and the other half in Chihuahua then distance from the community to the U.S. border is the average distance to the Baja and Chihuahua crossings.

Cumulative causation and migrant network theory suggest historical migration rates are another potential instrument. The validity of historical migration rests on the assumption that historical migration seeds contemporary migrant networks and migration independent from the many contemporary factors of migration that also pose potential confounds. Woodruff (Woodruff & Zenteno, 2001) tests historical migration data from statistics provided in a 1925 report to the U.S. Department of Labor (Foerster, 1925) and from Bracero program registration data from 1955-1959 (Woodruff & Zenteno, 2001) and finds both instruments have similar performance. Given Woodruff's results, the hypothesis tests of migrant motivations to engage in collective remittances will use Bracero program data from 1955-1959 for historical migration rates, reproduced in table 3.1.

Arbitrary shocks and events that result in sharp changes to migration are also good instruments. If the event is unrelated to the omitted variables then the changes that the events precipitate in migration will also be unrelated to the omitted variables. Arbitrary shocks provide a natural experiment but such events can be difficult to identify and capitalize upon.

Choice of instrument is important for the research question because how an instrument re-expresses migration also impacts the relationship between migration and the dependent variable. Distance to the border and historical migration are different kinds of instruments from an arbitrary shock to migration. distance to a destination and historical migration are more pertinent to the long-term effects of migration than a short-lived shock like a drought or financial crisis.

Models can implement instrumental variables in two stages using two-stage least square (2SLS or TSLS.) The first stage fits a model to all exogenous variables and the instrument to predict the endogenous variable. The second stage fits the model of interest but replaces the endogenous variable with the value fit in the first stage. Model interpretation must remain mindful of the transformations of the endogenous variable. With distance instrumenting migration state, the model is now fitting the effect of stage explained by distance, rather than stage only.

### 3.2.3   imputation

One piece of missing data can remove an entire case. Multiple imputation provides a solution by providing multiple predictions for the missing data that reflect the most likely values and their distribution (Rubin, 1987; J. Schafer, 1999; J. L. Schafer & Graham, 2002). If missing data is missing at random or missing dependent on observed data, then multiple imputation can reduce bias and increase precision.

An analysis usually fits a model to each imputation. Parameter estimates are the average of estimates of each imputation, and the covariance matrix is the average of covariance matrices plus a term that represents the variability of estimates across each imputation (Rubin, 1987; Brownstone & Valletta, 1996). Increasing the number of imputations improves the accuracy of estimates, but about five imputations is usually sufficient.

Literature disagrees on handling missing dependent variables. Missing dependent data are predicted from the same data that the analysis will use to fit a model. Best practices dictate that the cases with missing dependent data are usable for imputation but not model fitting (J. L. Schafer & Graham, 2002; Hippel, 2007). Simulation analysis finds that with sufficient numbers of imputations, around five, models can usefully retain cases with missing dependent variables (Young & Johnson,

2011). If the dependent variable is an index with partially missing components, then the case is even stronger to retain imputed dependent variables (J. L. Schafer & Graham, 2002; Graham, 2009).

The imputation of the multilevel MMP data proceeds through multiple levels (see (van Buuren, 2010).) Imputation begins with households and migrants from the households and produces $m$ imputations. The next step merges person level data to each imputation and imputes the missing person level data once for each of the $m$ imputations. The final step aggregates person, household, and migrant data to the community level, and merges the aggregations from each imputation to community level data and imputes the missing community level data, again once for each of the $m$ imputations.

The imputation procedure uses all variables in the analytical model and some additional variables to improve imputation. The additional variables include the head of household education and proportion of the community with more than five years of education. The education variables are to improve imputation of missing income and wage data.

### 3.2.4   bootstrapping

Bootstrapping is a method of estimating parameters about a population using multiple resamples of the sample data (Efron, 1979). If sample data is a reasonable approximation of the population, then bootstrap methods can infer the quality of estimators. Bootstrapping is a simple and straightforward method to estimate standard errors and confidence intervals of complex statistics with data that may not satisfy assumptions of standard inferential methods. Bootstrapping is ideal for small datasets or datasets that do not satisfy distributional assumptions.

Bootstrapping is particular attractive for analysis of collective remittances because most communities do not obtain collective remittances. If small perturbations to the data result in large changes to a statistical model then the bootstrapped confidence intervals will be wider than those produced by standard asymptotic inferences. Jackknife after bootstrap can further investigate the data for cases with an oversized influence on the results of a hypothesis test. Bootstrap provides a check against standard asymptotic inferences, however both bootstrap and standard methods can yield similar results yet both be wrong (Horowitz, 1997).

Bootstrap methods treat a sample as a population and draw many resamples of the data with replacement. A randomly chosen sample is the best asymptotic approximation of a population, and resampling with replacement estimates the sampling distribution rather than requiring assumptions. An analysis fits a model to each resample. Parameter estimates are the average of the model estimates. The distribution of estimates is the sampling distribution and contains information to construct confidence intervals (Brownstone & Valletta, 2001; Efron & Tibshirani, 1993; Horowitz, 2001). Bootstrapped estimates will asymptotically improve whether errors are homoskedastic or heteroskedastic.

Bootstrapping multiple imputations follows one of two procedures. The first approach bootstraps each imputation and uses the standard imputation combination rules to obtain estimates, or can pool the $r * m$ estimates and find confidence intervals from the percentiles of the empirical distribution–for example 95% confidence intervals use the 2.5th and 97.5th percentiles. The second approach imputes each bootstrap and again uses standard imputation combination within each bootstrap or pools the $r * m$ estimates. The first approach is probably more common. The second approach is more accurate (Schomaker & Heumann, 2016) but also computationally intensive, especially if analysis further processes each imputation prior to model fitting.

## 3.3  classifying communities by stage

Stages are a simple way to summarize the complex changes that occur within a community overtime due to migration. Migration has structured effects so that metrics of migration history are also a reasonable proxy for the cumulative effects of migration overtime (Massey, 1990). NELM was the first theory to demonstrate that the effects of migration change with accumulation remittances and migration experience (Stark & Bloom, 1985). Stages overlay the inflections in the effects of migration with periods of stability that persist for longer periods of time.

The quantitative analysis operationalizes stage using the prevalence and history of migration. History is the length of time since first migration, and prevalence is the months of migration experience; these represent the passage of time and growth of migration experience. In aggregation

at the community level, prevalence and history characterize the progression along migration stages. This approach is congruent with other investigations of the stages of migration (see, for example, (Jones, 1998, 2013), and also is similar to how migrant networks research defines the progression of migration within a community (see, for example, (Massey & Espinosa, 1997).)

Figure 3.1 plots communities by their migration prevalence and history. A clustering algorithm has classified each community into a discrete stage based upon their position on the plot. The algorithm found three clusters, or stages. Moving from the lower left to the upper right, the clusters represent stage one, two, and three, represented by squares, circles, and triangles respectively. Ellipses on the plot indicate the cluster centroids and shape.

The stage boundaries are uncertain. Stage one communities are tightly clustered but impinge on the stage two communities. Stage three communities are separated from the rest, but curiously six communities are within the stage three ellipse yet more likely belong to the stage two classification.

The means of migration prevalence and history by stage are in table 3.2, along with the number of cases in each stage. The clustering algorithm classifies each imputation, but the results were very similar and the values in table 3.2 are the average across imputations. In no case does a community have a different classification for stage between imputations. The increase in prevalence and history between stages is roughly proportional, with stage two about 3 times longer history and greater prevalence than stage one, and stage three about 3 times greater than stage two.

Figure 3.2 displays a choropleth map, colored by migration stage at the state level. The map uses the following procedure to determine the migration stage at the state level: if the state contains any stage three communities then it is a third stage state, else if a state contains more stage two than one communities then it is a stage two state, else it is a stage one state. Notably, the states of central-western Mexico are stage three, states or northern Mexico are stage two and southern stages are stage one. The states are numbered, and table 3.3 displays the state names by number.

Third stage states include Jalisco, Michoacan, Zacatecas, San Luis Potosi, Guanajuato, Estado de Mexico, Colima, and Guerrero and are the areas notable for sending the most migrants to the U.S. Zacatecas, indeed, is the origin of the *dos por uno* and *tres por uno* programs. Today Guerrero ranks first among Mexican states for emigrants to the U.S, but historically the primary senders are

Jalisco, Michoacan, and Zacatecas. Colima is close to the top in HDI among Mexican states, and ranks first in HDI among third stage states.

All third stage states, Jalisco in particular, are historically well connected via rail to the U.S. When in the 19th century *enganchadores* traveled through Mexico seeking laborers for U.S employers, it was in presently third stage states that they reached the first major population centers, and from these locations they would hire Mexican peasants to migrate via rail to the U.S. This established an early pattern of migration that would grow and become self-sustaining migrant networks (Massey et al., 2002). Michoacan also suffered a volcanic eruption in 1943 that disrupted local agriculture and economies, and made migration the only available option for many people, thus establishing a history of migration also from that state.

Michoacan and Zacatecas are notable for their dependence upon agriculture, including farming, livestock, and fishing. Much of these activities are seasonal, resulting in large swathes of the year when work may be locally unavailable, and making migration the only option for those who usually work in these sectors. Both these states more than any other have greater proportions of stage three communities, which suggests larger portions of the population depend upon migration.

Third stage states are of economic contexts that favor greater migration. Jalisco and San Luis Potosi have relatively strong economies, both historically and contemporarily. Jalisco is Mexico's third strongest economy, trailing only Nuevo Leon and the Federal District of Mexico City. San Luis Potosi has strong industry, and is centrally located and close to several major cities and ports. Locations with abundant commercial and entrepreneurial opportunities provide alternative opportunities to migration, whereas families in poor areas may lack resources to fund a migrant. Jalisco and San Luis Potosi, however, seem to occupy the socioeconomic middle ground that tends provide both incentive and means to migrate. Stage one communities should have the most to gain from migration, but households in stage one communities likely are unable to fund migrants. Figure 3.3 plots communities by migration prevalence and 2010 HDI score. Stage two states have higher average HDI and stage one and three have similar HDI scores.

## 3.4 Descriptive statistics

The variables in the model are stage classifications, invested remittances, standardized domestic wages, standardized wages abroad, community population, and the dependent variables are projects financed with help from migrants. Stage classification is described in figure 3.1. Invested remittances are the proportion of reported remittances that were invested; table 3.9 describes criteria for classifying remittances as investments. Domestic wages are in pesos and wages abroad are in dollars, and both are standardized to real wages using a base of 2014. Community population is the population of the community at the time of the survey. Table 3.4 displays mean values, range, and mean values by stage for the variables of the model. Figure 3.4 plots stage by the year of survey and shows that stage is fairly evenly distributed over the survey years with substantial jump in the number of stage three communities in the 2014 MMP dataset.

The number of projects financed by migrants increase substantially moving up the stages. Projects financed by migrants triples between stage one and two, and almost doubles again from stage two to three.

Households and migrants of stage three communities on average are wealthier and invest more remittances in productive enterprise. Migrants of stage one and two communities receive similar hourly wages, whereas migrants of stage three communities make over a dollar more an hour. Figures 3.5 and 3.6 show that stage three communities have less education and that community average education has little relationship with average wages of migrants from that community. Another explanation, consistent with migrant network and migrant strategy theory is that migrant networks of stage three communities secure better wages for migrants from these communities.

Descriptive statistics support theoretical predictions of the migration stage model and formation of migrant networks. Populations of stage three communities have less education, but their migrants obtain higher wages, because migrant networks encourage migration over education but help secure better wages abroad. Economic thresholds beyond which migrant networks begin to drive migration are a fingerprint of peers within a migrant network propagating useful information that reduces the costs and uncertainty of migration (Garip & Asad, 2016).

### 3.4.1   stages of migration and collective remittances

Communities of each stage differ not only in the degree of help migrants supply to developmental projects, as shown in table 3.4, but also the type of projects migrants help to complete. Table 3.5 tabulates the proportion of communities by stage that have completed each type of community development project. Only small proportions of stage one communities have completed anything other than a church. Similar proportions of stage two communities have completed a church, but stage two communities have completed all other types of projects in much greater proportions than stage one communities. In the stage three communities the proportion completing a church is almost doubled over stage two, and almost tripled over stage one. Stage three communities complete schools, electric and and light service projects in similar proportions to stage two communities, and roughly double the proportion of communities that complete water service, plazas, and sports facilities. To summarize, churches are the most important projects for stage one communities, whereas stage two communities focus on developmental projects like electricity and water, and stage three communities are similar to stage two in terms of developmental projects and also complete greater proportions of lifestyle projects like plazas, markets, and sports facilities.

Churches are the most common project, because the original goal of most HTAs was to provide charitable contributions to churches, and only later did activities shift to infrastructure development (Orozco, 2000). The number of non-church projects migrants help complete may indicate the degree that migrants are taking on responsibilities beyond the original goals of HTAs. Table 3.6 displays the proportion of communities where migrants help complete at least as many projects indicated by each column. The second and third rows display the number of non-church projects completed in communities where migrants have and have not helped to complete a project involving a community church. In all communities where migrants have helped to complete 4 or more projects migrants have also helped complete a church. Few communities have received help from migrants with any non-project without also receiving help with a church. This suggests that local churches remain key to HTA goals, even as HTA missions expand to involve broader community development.

Table 3.7 disaggregates by stage the proportions of communities where migrants help complete

at least as many projects indicated by each column. The proportion of stage one communities completing successive projects drops quickly, and by four projects the proportions of stage one communities have vanished. Stage two communities follow a slower decrease than stage one, and stage three slower still. In stage 3 the odds that migrants have helped complete a given number of projects are consistently about four times greater than in stage two.

## 3.5   Models

The models test four hypothesis to investigate the relationship of collective remittances with community economic contexts, the endogenous progression of migration within communities, and the motivations of migrants who send collective remittances. The hypothesis are the *network*, *exchange*, *investment*, and *strategy* hypotheses. Each hypothesis tests with three models, for productive, non-productive, and total projects completed with help from migrants. Table 3.8 describes how projects are aggregated into productive and non-productive projects

**Networks: advanced migration stage supports collective remittances for productive projects.** This core hypothesis tests that Mexico's long term migration provides the infrastructure for the culture and practices that support and sustain collective remittances. This hypothesis fits a model to both productive and non-productive projects and compares the results. The model rejects the null if migration stage is positive and significant for productive projects.

**Exchange: migrants fund more projects with rising average community household income.** The exchange hypothesis states that the number of projects migrants help complete increases as household income in the home community increases. Wealthier communities require more assistance from migrants in exchange for status conferred by the collective remittances.

**Investment: migrants help out more for communities where they also invest more family remittances.** The investment hypothesis classifies remittances into discretionary, staple, and investment spending. The hypothesis states that migrant's donations to collective remittances are positively correlated with their investments in themselves and community. Table 3.9 displays how the hypothesis groups items from the MMP survey into the three different classes of remittance

spending. Respondents may indicate up to five different uses of remittances. The model calculates invested remittances as the proportion of all remittance uses that are investments. The model rejects the null if invested remittances are significantly and positively correlated with collective remittances.

**Strategy: migrants help out to dissuade future migration.** The strategy hypothesis is the most subjective and relies upon intent–which may not be proven–but enjoys substantial support in qualitative case studies. The dissertation adapts this hypothesis from the *strategy* hypothesis that Stark (Stark, 1995) developed for family remittances, and the logic remains similar. At the family level the strategy hypothesis states that migrants send money home to lessen incentives for migration so that additional family and community members will not migrate and contribute to labour supply that can place downward pressure on wages. This is especially so if migrants believe they are more talented than an average family or community member and do not want to dilute the employer's expectations of migrant talent.

The test for all hypothesis use a single model with controls and fit to three different dependent variables. The independent variables for the hypothesis are 1) indicators for stage two and three 2) community average household income in 2014 pesos 3) proportion of remittances and savings invested in the community, and 4) migrant's hourly wages abroad in 2014 dollars. The dependent variables are the number of productive, non productive, and total projects migrants help finance. Municipal population is in the model to control for the effect of rural or urban contexts. The models scale all the data prior to fitting, primarily to aid the algorithms fitting the data, but also to assist model interpretation and presentation.

The analysis fits the model using quasilikelihood and generalized linear modeling. The dependent variables are counts of the types of projects migrants help fund, and typically are low values, where discrete counts differ substantially from a continuous normal distribution. Regression-based tests for the models fit to a Poisson distribution find an overdispersion parameter from about 1.3 for the model of non productive projects to about 2.4 for the model of all projects (Cameron, 1990), and the parameter is consistent across imputations. Where the mean and variance are equal in the Poisson distribution, quasilikelihood specifies variance as a linear function of the mean:

$$var(Y) = \theta\mu$$

if $\theta \equiv 1$ then quasilikelihood corresponds to the mean-variance relationship of the Poisson distribution. Negative binomial is another option for overdispersion that uses a probability distribution and specifies a quadratic relationship between the mean and variance:

$$var(Y) = \mu + \kappa\mu^2$$

At small mean values, the quasilikelihood variance is similar to negative binomial. As a practical matter, quasilikelihood usually better fits data (Hoef & Boveng, 2007), but negative binomial fit the data to a distribution, with all the benefits of having a likelihood function. The models fit to each imputations are combined by Rubin's rules (Rubin, 1987) to obtain a single set of coefficients and variances.

Hypothesis testing uses bootstrap to estimate bias of the statistics and find confidence intervals. Bias-corrected and accelerated (BCa) percentile confidence intervals correct for bias and non-uniformity of the distribution of the statistics (Efron, 1987). Bootstrap techniques are well suited for the analysis because most communities receive little or no help from migrants with development, and random deletion or addition of communities can substantially impact the models. Jackknife after bootstrap identifies those communities that have unusually large impact and influence on model results (Davison & Hinkley, 1997; Efron, 1992).

The analysis draws $R$ bootstraps from each of the $m$ imputations and finds confidence intervals using BCa from the $R*m$ replicates. Another method is to draw replicates from the original data and impute each bootstrap to again obtain $R*m$ replicates. The later procedure is more accurate and usually delivers narrower confidence intervals (Schomaker & Heumann, 2016). The multilevel imputation procedure of the MMP data, however, is computationally intense and would take too long to complete over 1000 or more replications.

Due to complexity of migration, endogeneity is a risk for models testing hypothesis concerning migration rates. The stage of migration is a function of migration rates and also a candidate for an endogenous variable. At least two instrumentation strategies exist in literature. The first strategy instruments migration rates with distance to the border, given the hypothesis that, *ceterus paribus*, people closer to a border are more likely to migrate across it than those further away (Garip, 2012;

Woodruff & Zenteno, 2007). The second strategy instruments contemporary migration rates with historical migration rates (Mckenzie & Rapoport, 2007; Woodruff & Zenteno, 2001). The validity of historical migration as an instrument rests upon cumulative causation theory, or the hypothesis that historical migration seeds migrant networks in a location such that historical variation in migration explains some of the contemporary variance in migration rates independent from the many potential confounds surrounding present day migration.

Figure 3.2 shows that Mexico's northern states are a more advanced stage than the southern states, but that central states are the most advanced due to the rail lines, economy, and history of recruitment. For Mexico combining the instrumentation strategies may be most appropriate, with the assumption that distance instruments for stage after controlling for historical effects in Mexican migration.

The analysis implements instrumental variables regression within a generalized linear model using two stage predictor substitution (2SPS) (Terza, Bau, & Rathouz, 2008). 2SPS proceeds like two stage least squares (2SLS) but uses maximum likelihood estimation algorithms to fit parameter estimates and provides discrete classifications rather than continuous linear values. In the first step a model fits instruments and classifies the values of the endogenous variable. The second stage substitutes the classifications for the endogenous values and fits a model to the dependent variable.

The first step of 2SPS use cumulative link modeling to fit the ordinal values of migration stage (Agresti, 2010; McCullagh, 1980). Cumulative link modeling recodes a single ordered factor with $c$ levels into $c - 1$ binomial variables that recognize category order. The first binomial variable indicates cases that belong to the first category or less, the second binomial variable indicates cases that belong to the second category or less, and so on. Cumulative link modeling fits the $c - 1$ independent variables using multivariate modeling and exploits the property of *strict stochastic ordering* to fit the $c - 1$ variables as a single latent linear model (Fahrmeir & Tutz, 2001). The cumulative link model has a single set of coefficients and $c - 1$ intercepts that represent the ordinal classification thresholds on the latent model. Another common conceptualization for a cumulative link model is a proportional model, because with one set of coefficients and $c - 1$ intercepts the cumulative link model fits $c - 1$ proportional, or parallel, models.

Figure 3.7 plots the classification probabilities of a proportional odds model for migration stage for the first step of 2SPS.

The second step of 2SPS uses a generalized linear model to fit the number of projects that migrants help complete, and a quasilikelihood to accommodate overdispersion. In the second step migration stage is now an ordinal independent variable. Ordinal independent variables are typically insensitive to violations of linear and interval-spacing assumptions (Bollen & Barb, 1981; Pasta, 2009). Ordinal categories can also act as nominal categories that ignore the ordinal nature, but methods exist that respect the category order (Gertheiss & Tutz, 2009). Migration stages are ordinal but also a function of structural contexts and equally nominal. With only three migration stages, specialized ordinal methods may add little value, and nominal variables provide a simple and theoretically satisfying solution.

### 3.5.1   Results

The analysis fits three models: 1) help migrants provide for all projects, 2) for productive projects, and 3) for non-productive projects. The three models are fit using both generalized linear regression and instrumental variables regression via 2SPS. The analysis uses both asymptotic and bootstrap methods to estimate bias and confidence intervals for the $3x2$ models, resulting in twelve sets of confidence intervals for the hypothesis testing. The bootstrap confidence intervals provide a check for the confidence intervals found using conventional asymptotic theory. The models are organized into three figures, 3.8, 3.9, and 3.10. Each figure plots asymptotic and bootstrap confidence intervals for generalized linear regression and 2SPS, with 90% and 95% confidence intervals represented by the thick and thin lines, respectively.

The models are different between the three project types. The strategy hypothesis, represented by migrant's wages, are significant for all project types, but for productive projects only significant at 90% confidence intervals and not signficant for instrumented models. The investment hypothesis, represented by purpose of remittances, are significant only at 90% intervals for any type of project, significant only for the instrumented model of non-productive projects, and only the non-instrumented model for productive projects. The network hypothesis, represented by stage 3, is

significant for non-instrumented models of non-productive remittances at all confidence levels and calculation methods. For total projects, the strategy hypothesis is significant at all 95% intervals in non-instrumented models, and the investment and network hypotheses are significant at 90% intervals for non-instrumented models.

Looking deeper, the generally non-significant and lower levels of significance for the hypotheses for productive projects does not imply that migrants don't help out with productive projects. Figure 3.11 plots a logistic regression curve for the relationship between years since a community obtained electric service and an indicator for migrant's helping out with electric service in the community. As years since start of service increase migrants become less likely to help out with that service. Figure 3.12 plots the empirical cumulative distribution function for years since start of electric service and shows that most communities have had electric service for at least 45 years.

The instrumental variables (IV) models correct for potential endogeneity of the migrant stage indicators. The IV models in general have wider confidence intervals and fewer items significant. The only IV models with significant hypotheses are the models for non productive projects, with the strategy hypothesis significant at 95% for all intervals, and the investment hypothesis significant at 90% for bootstrapped intervals. Although the IV models correct only the stage indicators, endogeneity of migration stage can bias other variables via multicollinearity.

The models show the strongest evidence for the strategy hypothesis with non-productive projects. A strategy motivation for non-productive projects implies that the primary goal of collective remittances is to dissuade future migration by improving quality of life in the home community. While it seems counterintuitive that migrants would ignore service and infrastructure projects, it may be that communities lacking foundations of basic infrastructure are not good candidates for reduction of future migration. Table 3.10 shows that migrant's wages share moderate to strong multicollinearity with the other test variables, and may obscure the relationship between collective remittances and the other test variables.

The models provide weaker evidence for the investment and network hypothesis. If migration stage requires instrumentation, then the investment hypothesis is significant at 90% bootstrapped intervals for only non-productive projects, and the network hypothesis is not supported by the

models. If instrumentation is not necessary, then the investment hypothesis is significant only for productive and total projects at 90% intervals, and the network hypothesis is signficant only for non-productive and total projects at 95% and 90% intervals respectively. Weakness of the investment hypothesis could imply that where migrants do not contribute to community development via collective remittances, they may instead contribute to community development through private investment.

The exchange hypothesis finds no support in the tests. Table 3.10 shows the test variables for the exchange hypotheses shares no more multicollinearity with the the data than any of the other variables, so failure to reject the null can not be waived off as a technicality with the data. Failure to reject the exchange hypothesis suggests that migrants are altruistic, or at least not economically motivated. Though not significant, the test demonstrates an interesting pattern. Domestic wages are negatively correlated to non-productive projects, but positively correlated to productive projects. Domestic wages are the only variable to switch signs between models.

The strength of support for the strategy hypothesis suggest that migrants and their organizations support community construction and lifestyle projects out of a desire to attenuate future migration. Most communities have enjoyed basic water and electric infrastructure for decades, and communities without basic infrastructure are probably not candidates for future reduction of migration. Ergo, support of the strategy hypothesis for non-productive projects suggests that non-productive projects are the best option for community development in those communities that can reasonably expect to reduce future migration and develop local economies that are sustainable without migration.

## 3.6   Conclusion

The hypothesis tests demonstrate that both migrant's agency and their structural contexts influence collective remittances. Migrant's wages in the host state are the most important factor in the models. Migrant's wages are a function of host state structural contexts, but are largely independent from direct influence of migrant's home state structural contexts. Any relationship between migrant's wages in the host state and collective remittances back home reflect migrant's agency.

Secondary factors are migrant investments and networks. Migrant investments are likely sensitive to conditions in both the home and host nation, and require success in the host nation and receptivity to investment in the home nation. Migrant networks emerge from history and are beyond any one migrant but are important for the lives of all migrants.

A relationship between migrant's wages and collective remittances imply a strategic motivation. Strategic behavior is not the only implication, but the relationship is one of the most important for the strategy motivation. The hypothesis of the strategy motivation states that migrants use collective remittances to discourage future migration, reduce migrant labour supply, and buoy their own wages in the host state. Interestingly, the strategic motivation seems to be present only in migrant's support of non-productive projects. Communities that are candidates for reduction of migration via development likely already have good infrastructure, so that community construction and restoration present the best available projects for improving community development and mitigating the need for future migration.

A relationship between migration stage and collective remittances suggest the importance of migrant networks for collective remittances. From migrant networks spring migrant organizations, and migrant organizations are key facilitators of collective remittances to Mexico (Villela, 2014). Community stage of migration is significant only in models of non productive projects. Migrants often prefer non-productive projects, and migrants may have more influence in communities of an advanced migration stage.

Investments of remittances represent a nexus between structure and migrant's agency, and between conditions in migrant's home and host state. Migrant's must have sufficient wages to invest, and their home communities must offer suitable investment opportunities. The relationship between invested and collective remittances is tenuous, and while significant for both productive and non-productive projects is significant for different modeling methods within each project type. The bootstrapped intervals of the instrumented model are significant for non-productive projects, and the asymptotic intervals of the generalized linear model are significant for productive projects. The uncertainty of the relationship may be a product of the fact that the relationship exists at the nexus between structure and agency, host and home nation.

The available data for the hypothesis testing is both a limit and an opportunity. The data provides only a series of binary response from each community indicating if migrants helped with a type of project. The data lacks information on project specifics and funding. At the same time the data is not limited to a particular type of project or funding source. Data from *tres por uno* provides more project specifics and funding, but is limited to projects funded by *tres por uno*. The MMP data, however, is coarse but unlimited in scope. The hypotheses tests reflect the range of help migrants can supply towards community development, and not just help funneled through *tres por uno* or some other funding mechanism.

Future research can expand on the findings with datasets or case study of examining particulars of the relationships between migrant's lives and wellbeing in the host state and the help migrants provide to their homes. The separation between home and host state structural contexts provides space for empirical and experimental investigation of migrant's agency, and presents a good opportunity to investigate migrant's motivations to help out back home.

# Figures

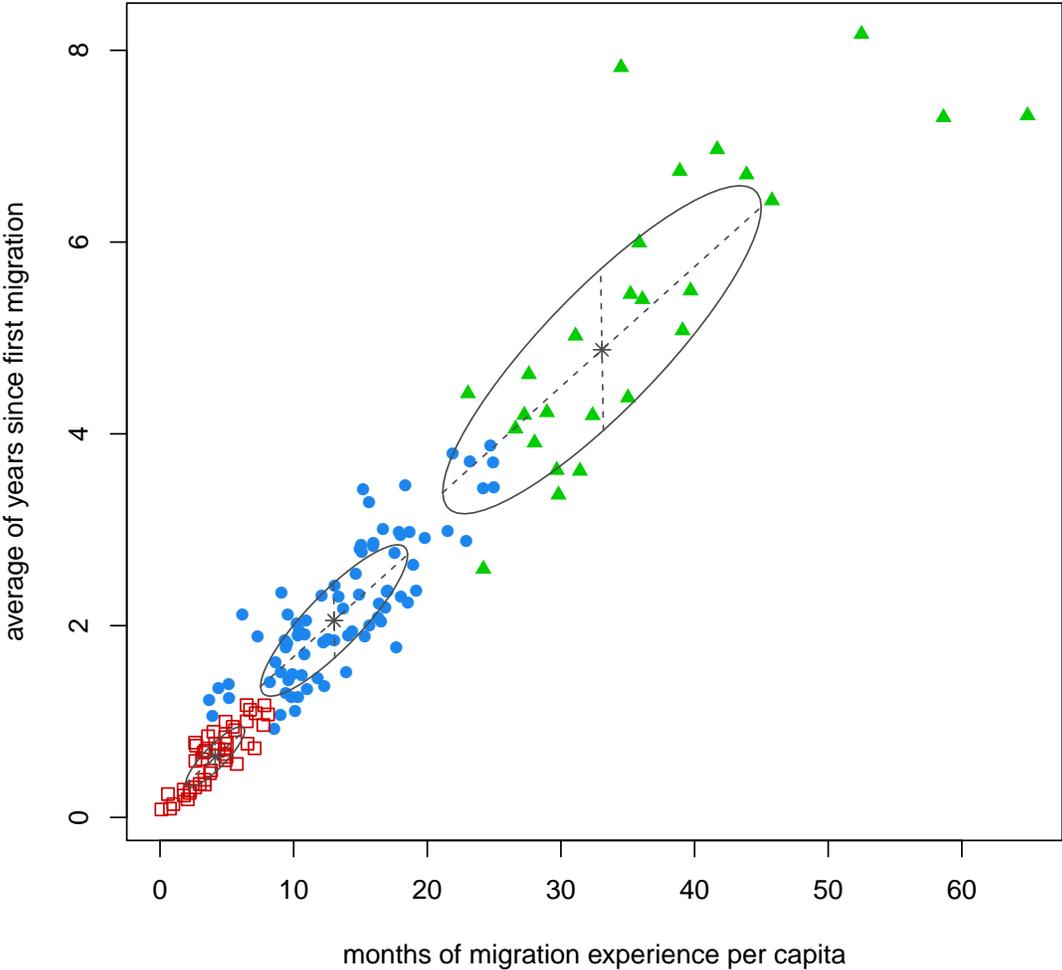Figure 3.1: Stage classification
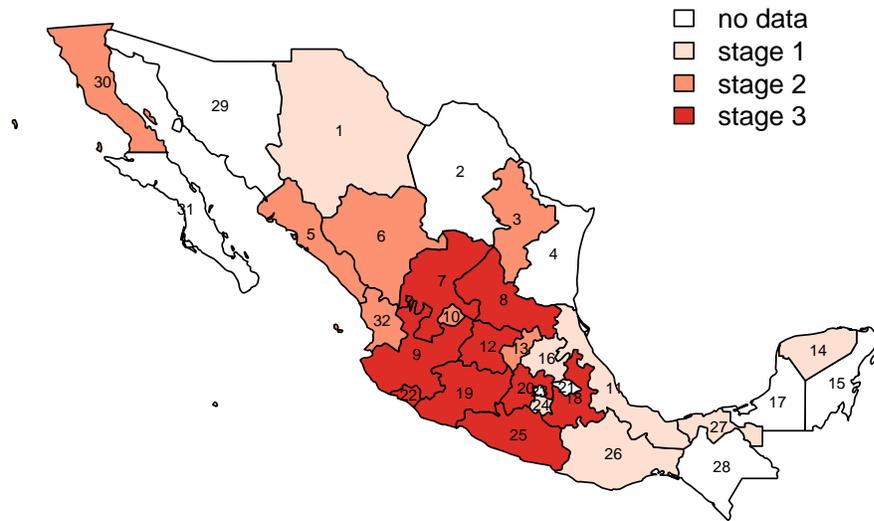
Figure 3.2: State stage classifications

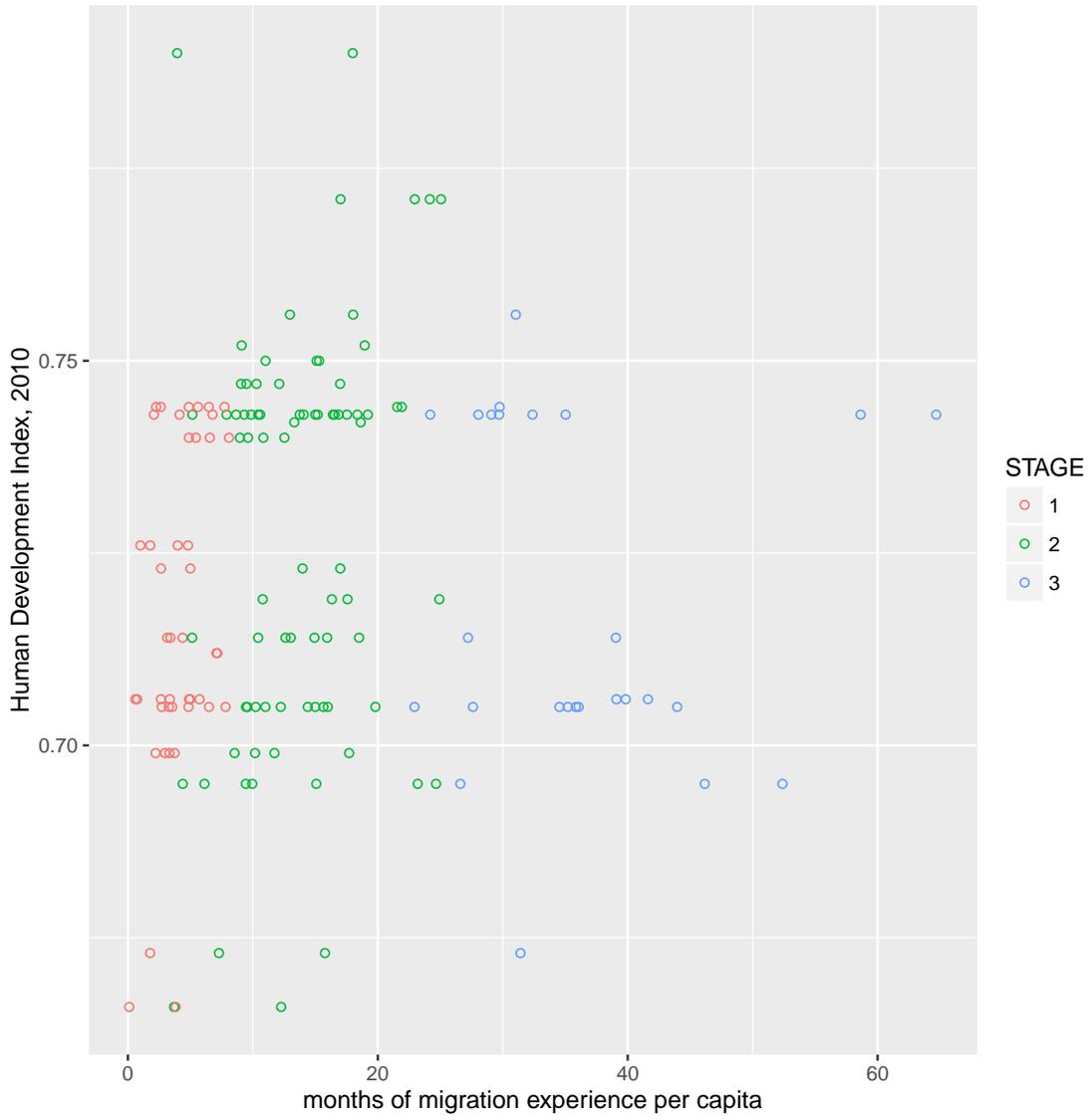Figure 3.3: 2010 Human development index by stage

Figure 3.4: Cumulative frequencies of communities by stage for each survey year
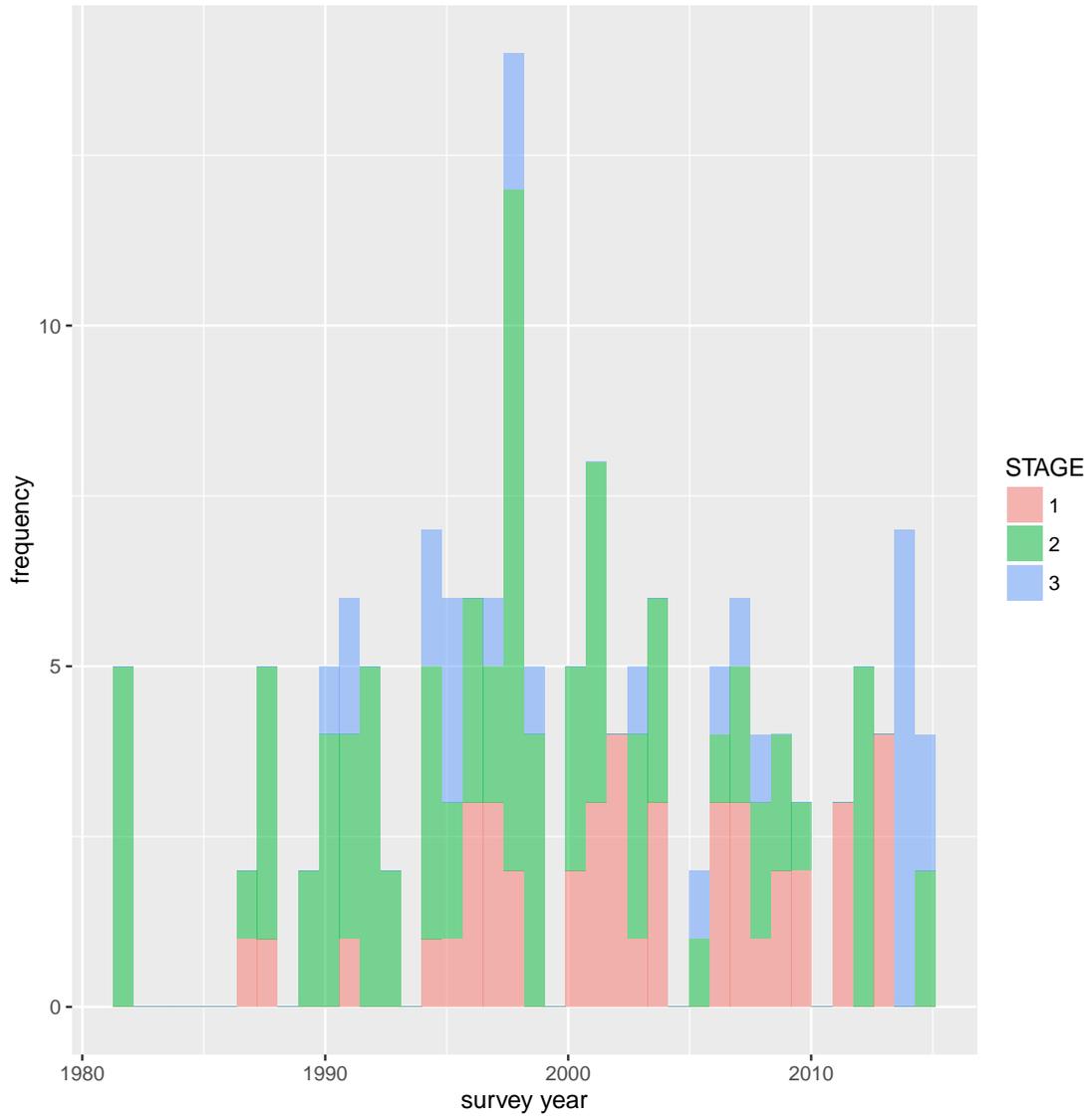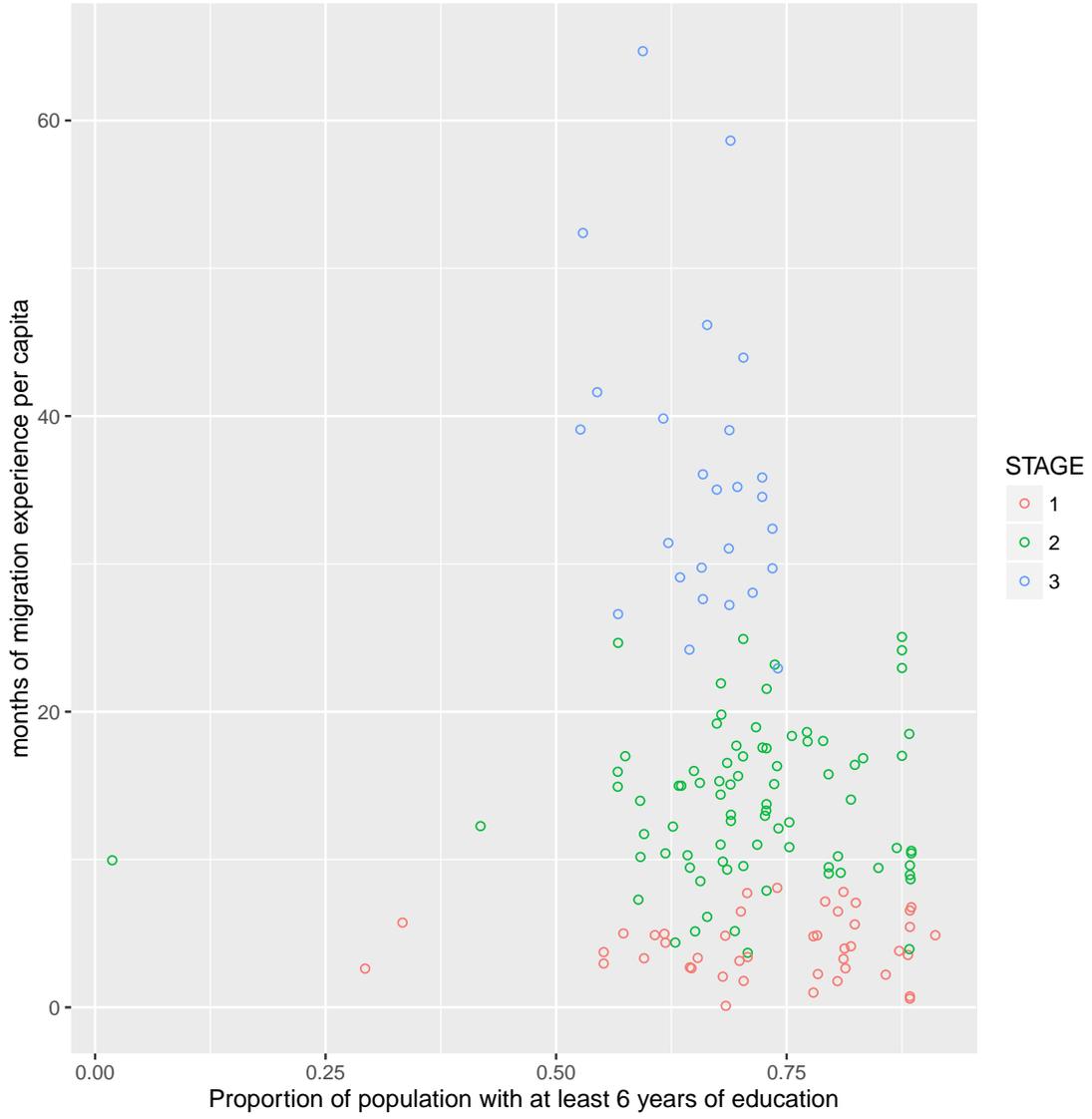
Figure 3.5: Community education by stage

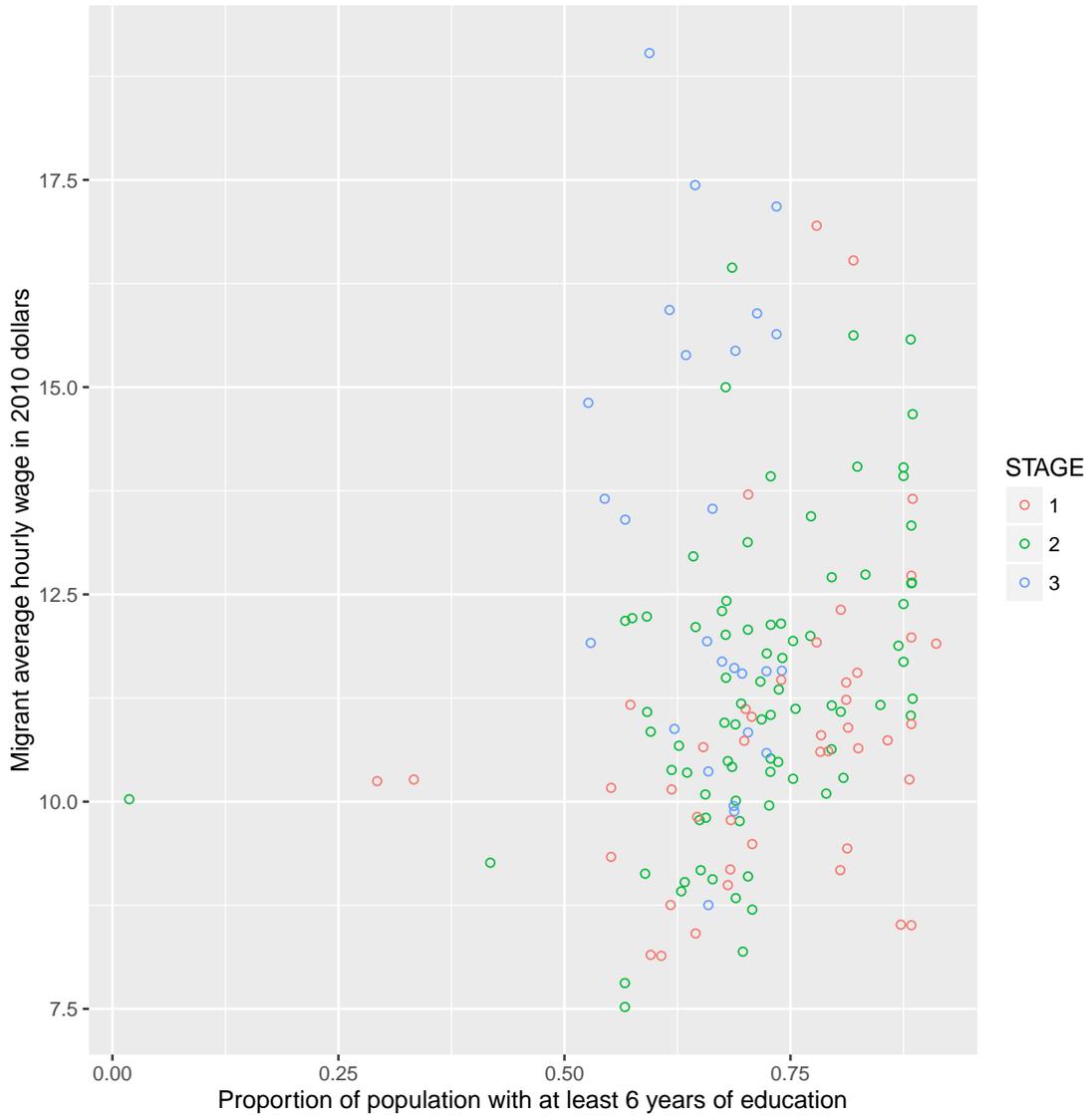Figure 3.6: Community education by migrant's wages

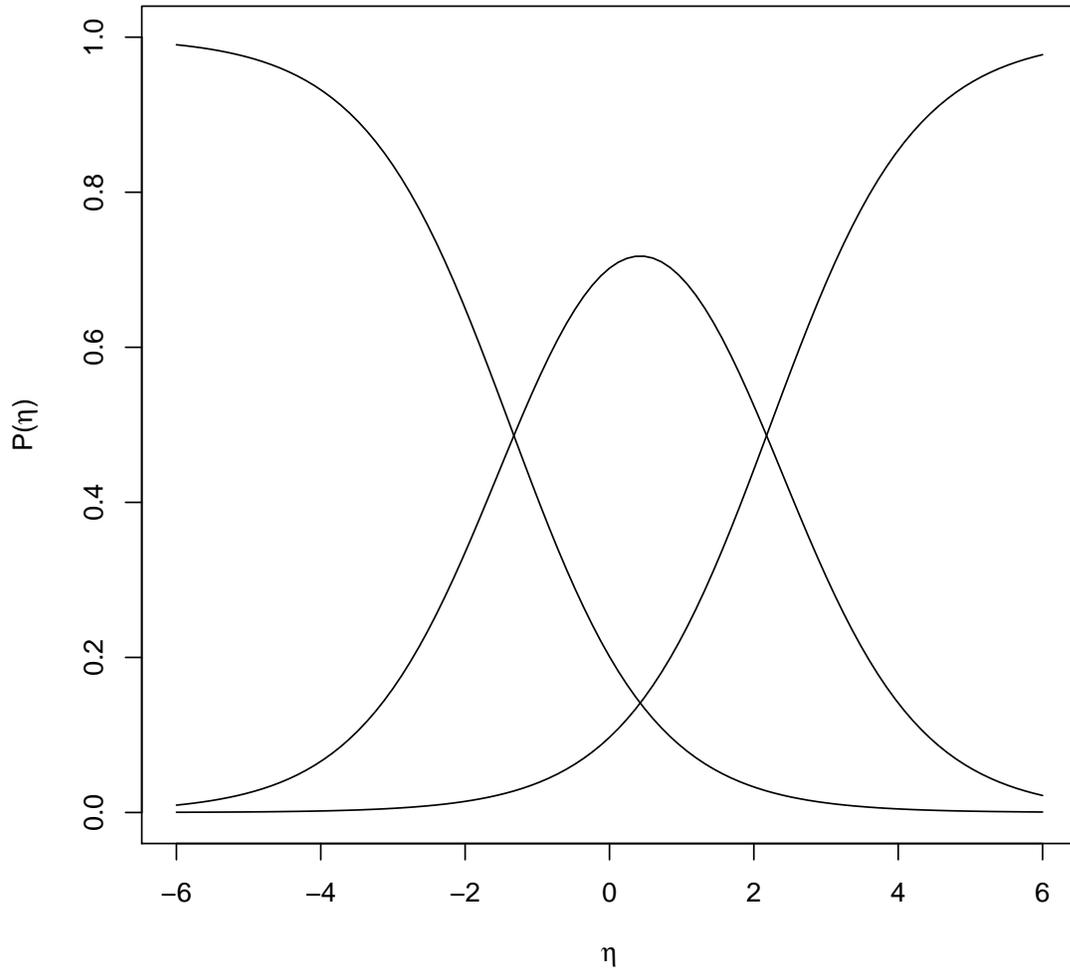Figure 3.7: Left to right: probability of stage 1, 2, and 3 by linear model $\eta = X\beta$
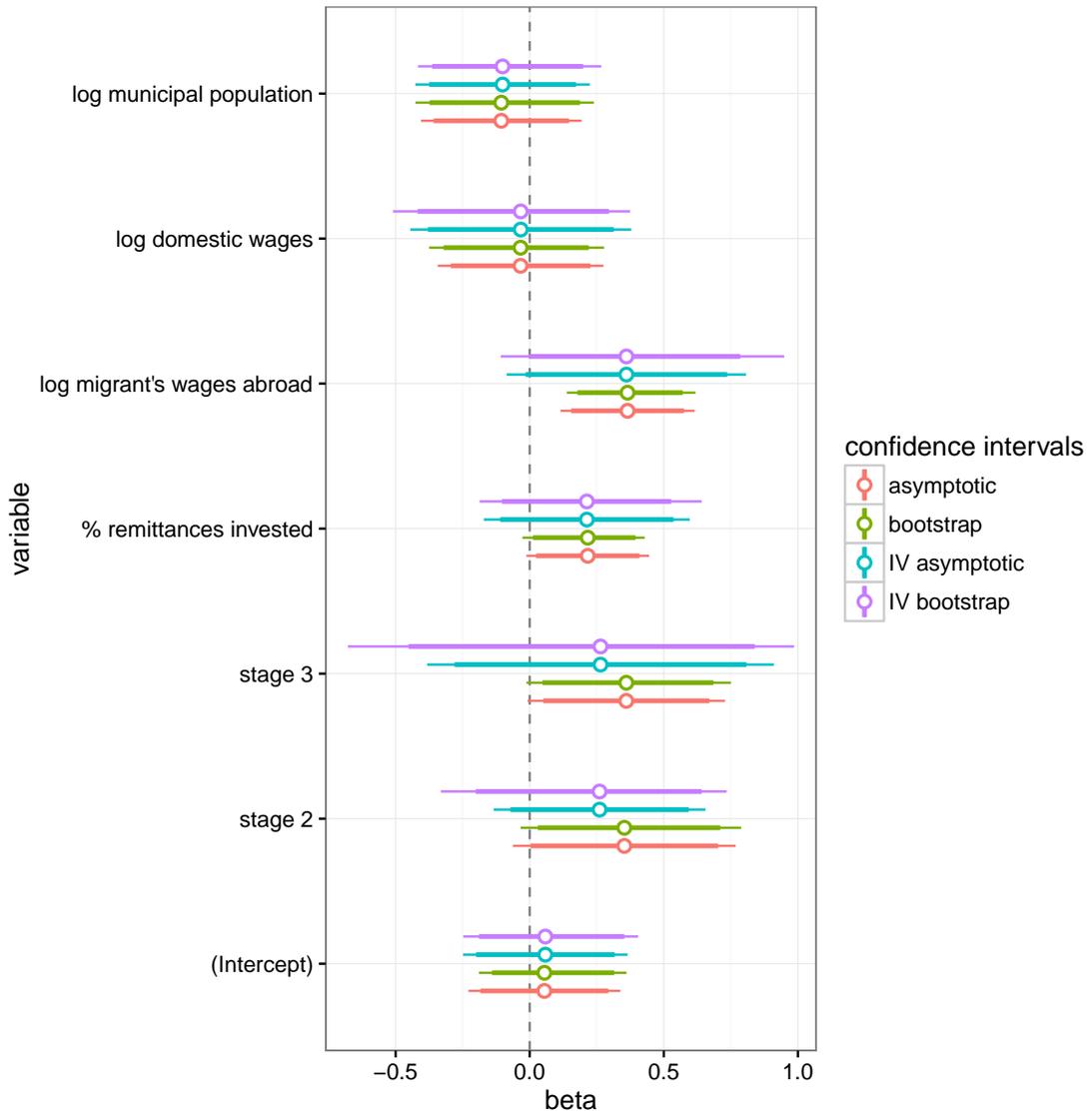
Figure 3.8: total projects
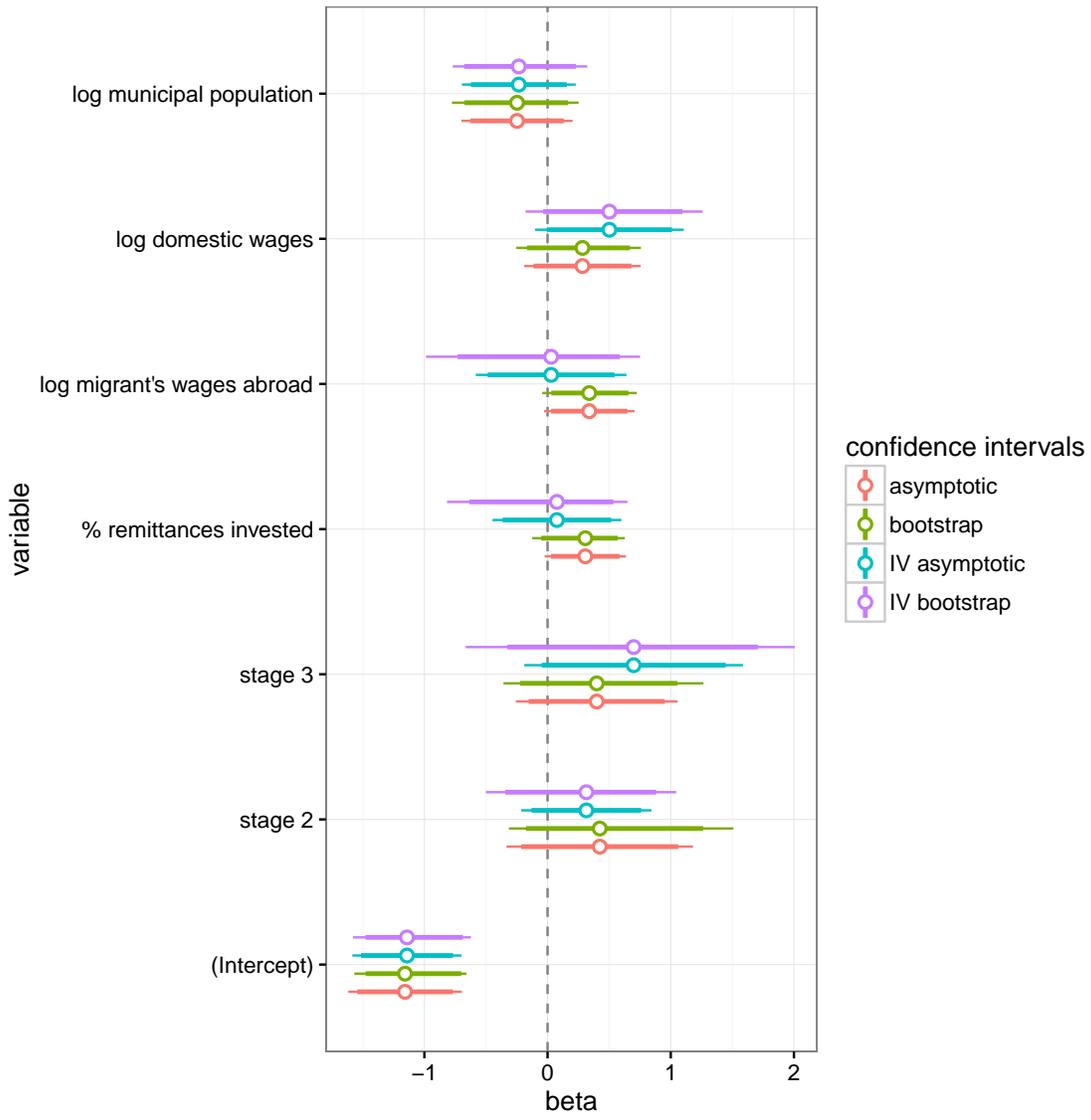
Figure 3.9: productive projects
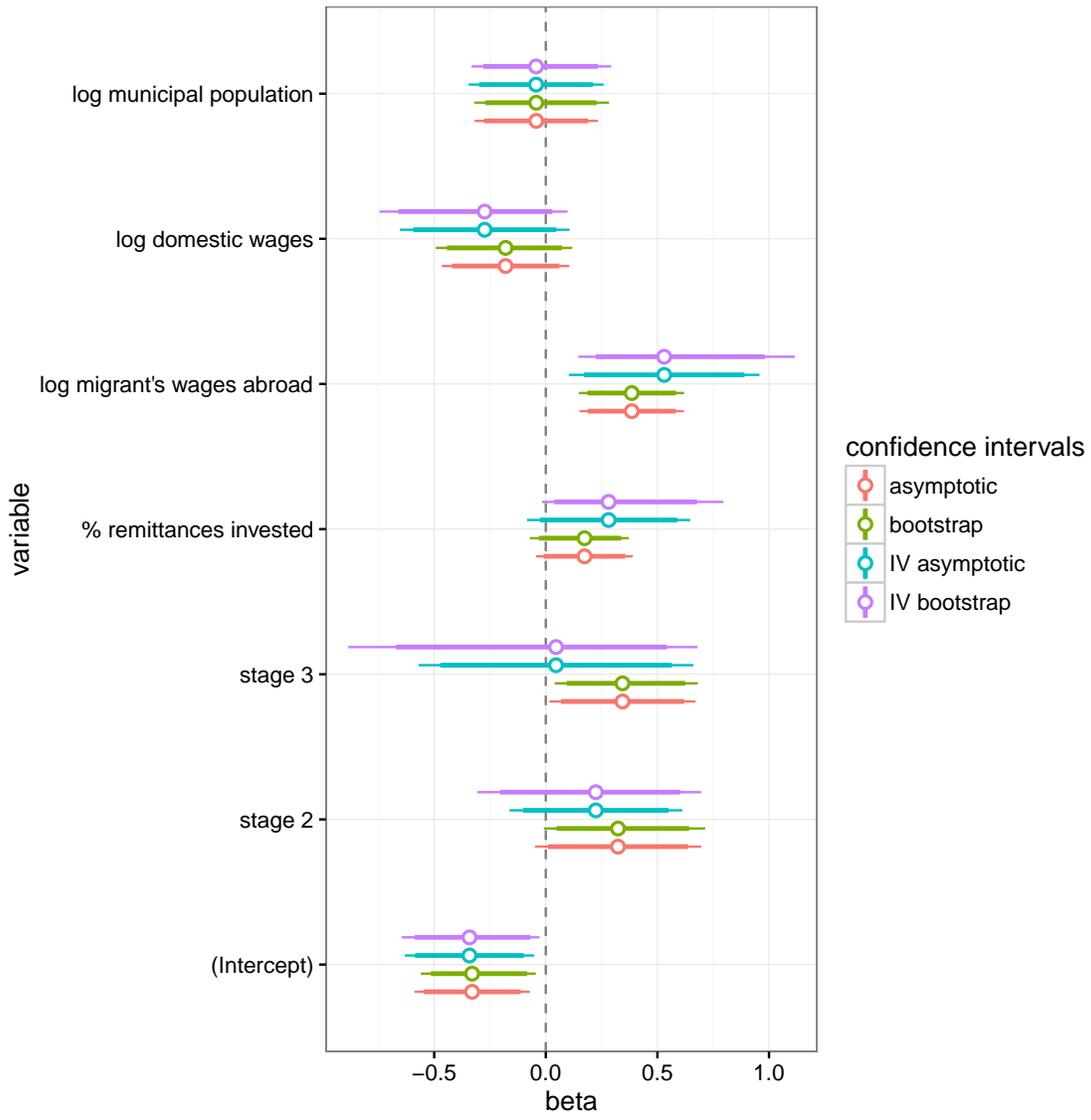
Figure 3.10: non-productive projects

Figure 3.11: Probability migrants help fund electric service given years since first electric service
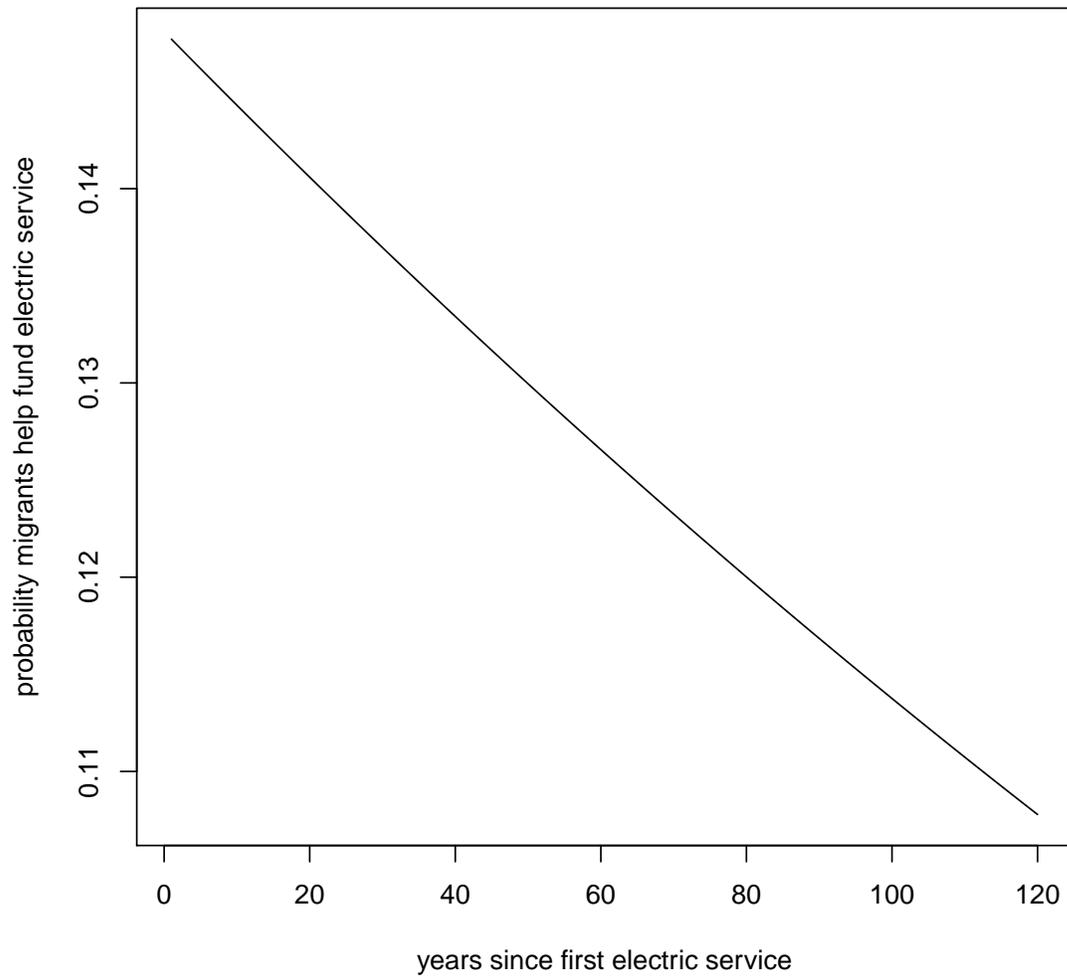
Figure 3.12: Empirical cumulative distribution function of years since first electric service
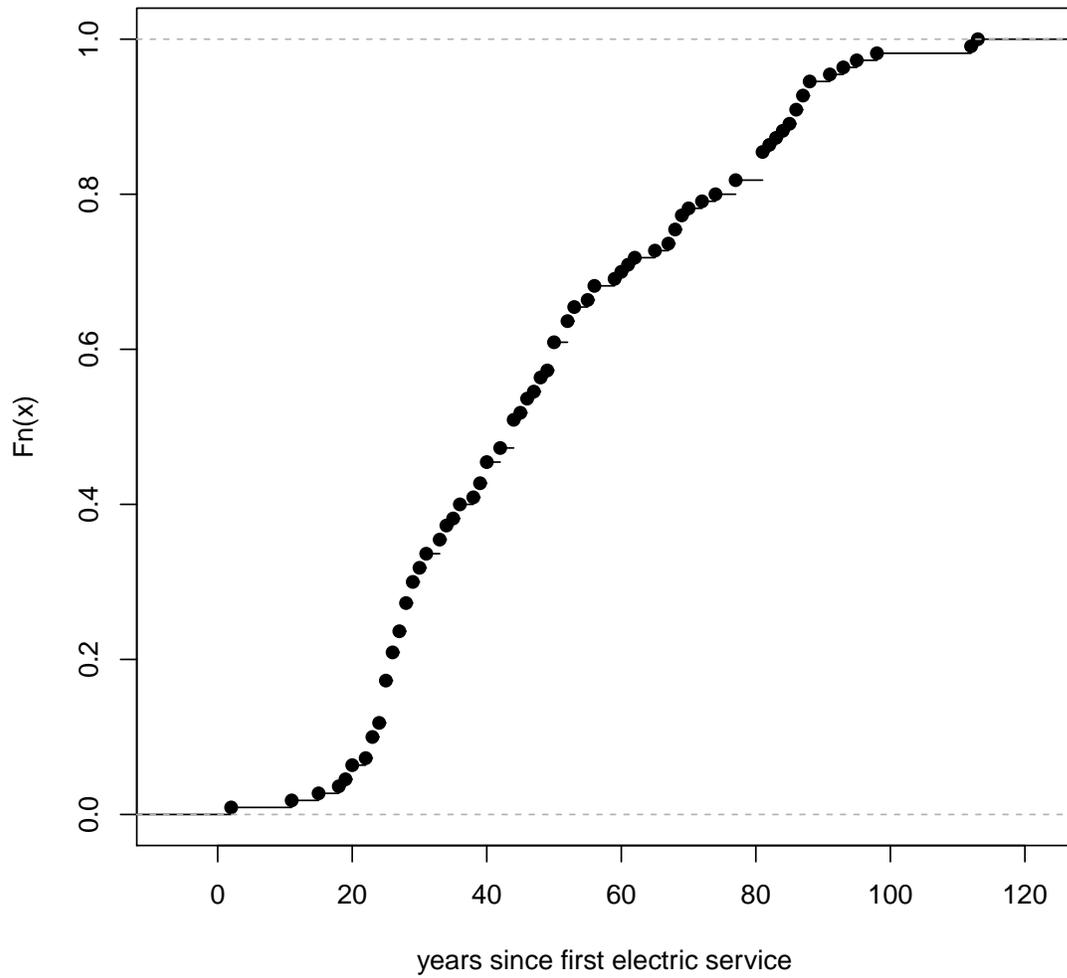
# Tables

Table 3.1: Historic migration rates of Mexican states

| state | 1959 rate |
|---|---|
| Aguascalientes | 0.0322 |
| Baja California | 0.0084 |
| Baja California Sur | 0.0084 |
| Campeche | 0.0001 |
| Coahuila | 0.0275 |
| Colima | 0.0134 |
| Chiapas | 0.0000 |
| Chihuahua | 0.0338 |
| Distrito Federal | 0.0010 |
| Durango | 0.0549 |
| Guanajuato | 0.0406 |
| Guerrero | 0.0132 |
| Hidalgo | 0.0026 |
| Jalisco | 0.0199 |
| Estado de México | 0.0057 |
| Michoacán | 0.0306 |
| Morelos | 0.0079 |
| Nayarit | 0.0081 |
| Nuevo León | 0.0266 |
| Oaxaca | 0.0083 |
| Puebla | 0.0030 |
| Querétaro | 0.0144 |
| Quintana Roo | 0.0002 |
| San Luis Potosi | 0.0249 |
| Sinaloa | 0.0046 |
| Sonora | 0.0053 |
| Tabasco | 0.0020 |
| Tamaulipas | 0.0088 |
| Tlaxcala | 0.0052 |
| Veracruz | 0.0004 |
| Yucatán | 0.0018 |
| Zacatecas | 0.0594 |

From (Woodruff & Zenteno, 2001)

Table 3.2: Mean of months of migration experience per capita and average years since first migration

|  | stage 1 | stage 2 | stage 3 |
|---|---|---|---|
| months of experience | 4.10 | 12.98 | 33.06 |
| year since first | 0.63 | 2.05 | 4.87 |
| n | 43 | 81 | 27 |

Table 3.3: States of Mexico and their stage of migration

| number | name | stage |
|--------|------|-------|
| 1 | Chihuaua | 2 |
| 2 | Coahuila | NA |
| 3 | Nuevo Leon | 2 |
| 4 | Tamaulipas | NA |
| 5 | Sinaloa | 2 |
| 6 | Durango | 2 |
| 7 | Zacatecas | 3 |
| 8 | San Luis Potosi | 3 |
| 9 | Jalisco | 3 |
| 10 | Aguascalientes | 2 |
| 11 | Veracruz | 1 |
| 12 | Guanajuato | 3 |
| 13 | Queretaro | 2 |
| 14 | Yucatan | 1 |
| 15 | Quintana Roo | NA |
| 16 | Hidalgo | 1 |
| 17 | Campache | NA |
| 18 | Puebla | 1 |
| 19 | Michoacan | 3 |
| 20 | Mexico | 3 |
| 21 | Tlaxcala | 1 |
| 22 | Colima | 3 |
| 23 | Distrito Federal | NA |
| 24 | Morelos | 1 |
| 25 | Guerrero | 3 |
| 26 | Oaxaca | 1 |
| 27 | Tabasco | 1 |
| 28 | Chiapas | NA |
| 29 | Sonora | NA |
| 30 | Baja California | 2 |
| 31 | Baja California Sur | NA |
| 32 | Nayarit | 2 |

Table 3.4: Descriptive statistics of independent variables by stage of migration

|                                 | stage 1 | stage 2 | stage 3 | range          |
|---------------------------------|---------|---------|---------|----------------|
| population                      | 237925  | 152457  | 6882    | 1000-1650000   |
| household head hourly wages MXN | 24.38   | 24.13   | 19.57   | 8.79-48        |
| proportion remittances invested | 0.01   | 0.018   | 0.024   | 0-0.06         |
| migrant's hourly wages USD      | 10.77   | 11.35   | 13.09   | 7.53-14.69     |
| projects financed by migrants   | 0.49    | 1.32    | 2.81    | 0-8            |

Table 3.5: Percent of communities that receive help from migrants by stage and project type

|  | stage 1 | stage 2 | stage 3 |
| --- | --- | --- | --- |
| electricity | 0.03 | 0.14 | 0.17 |
| water | 0.04 | 0.15 | 0.25 |
| lights | 0.03 | 0.16 | 0.19 |
| plaza | 0.01 | 0.16 | 0.38 |
| market | 0.02 | 0.04 | 0.12 |
| sports | 0.08 | 0.13 | 0.24 |
| church | 0.24 | 0.32 | 0.61 |
| school | 0.03 | 0.14 | 0.18 |

Table 3.6: Percent of communities by number of projects funded by migrants for total projects, projects including church, and projects excluding church

|            | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|------------|------|------|------|------|------|------|------|------|------|
| total      | 1    | 0.49 | 0.26 | 0.17 | 0.13 | 0.09 | 0.08 | 0.07 | 0.03 |
| church     | NA   | 0.40 | 0.22 | 0.15 | 0.13 | 0.09 | 0.08 | 0.07 | 0.03 |
| no church  | 0.56 | 0.09 | 0.05 | 0.02 | 0    | 0    | 0    | 0    | NA   |

Table 3.7: Percent of communities by migration stage and number of projects funded by migrants

| stage | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------|---|------|------|------|------|------|------|------|------|
| 1 | 1 | 0.30 | 0.09 | 0.05 | 0 | 0 | 0 | 0 | 0 |
| 2 | 1 | 0.49 | 0.26 | 0.17 | 0.12 | 0.10 | 0.07 | 0.07 | 0.04 |
| 3 | 1 | 0.80 | 0.58 | 0.38 | 0.31 | 0.23 | 0.23 | 0.19 | 0.04 |

Table 3.8: Project types

| productive | electric service |
| | water service |
| | lighting |
| non-productive | plaza |
| | market |
| | sports facility |
| | church |
| | school |

Table 3.9: Remittance types

| conspicuous | recreation & entertainment |
| | vehicle |
| | event |
| | consumer goods |
| maintenance | construction or repair of house |
| | education |
| | health |
| | debt |
| | savings |
| | other |
| investment | house or land |
| | tools |
| | livestock |
| | agricultural inputs |
| | business |

Table 3.10: Covariance matrix of independent variables

| | STAGE2 | STAGE3 | invested | wages | income | NAFTA | pop |
|---|---|---|---|---|---|---|---|
| STAGE2 | 1 | -0.50 | 0.12 | -0.01 | 0.27 | -0.27 | -0.16 |
| STAGE3 | | 1 | 0.28 | 0.48 | -0.01 | 0.09 | 0.08 |
| invested | | | 1 | 0.22 | -0.05 | 0.00 | -0.41 |
| wages | | | | 1 | 0.20 | -0.20 | 0.13 |
| income | | | | | 1 | -0.93 | 0.08 |
| gini | | | | | | 0.31 | -0.16 |
| NAFTA | | | | | | 1 | -0.09 |
| population | | | | | | | 1 |

# Chapter 4

# Extending the model: Latin America and beyond

An effort to broadly apply the strategies of collective remittances requires an equally broad analysis of migration, development, and transnationalism. Each diaspora has it's own way of doing things, structural contexts, obligations, and goals. Within diasporas around the world collective remittances have surged in the last quarter of the 20th century. Mexico's diaspora often serves as an exemplar, but diasporas world over often support some sort of collective remittance. Each diaspora departs from a different set of geographical and structural contexts that in turn lead each to arrive at a different set of strategies for using collective remittances to advance development goals (Caglar, 2006; Glick-Schiller & Caglar, 2009; Lacroix, 2014).

This chapter consists of two sections. The first section applies the model of Mexican collective remittances to migrants of Latin and Central America, it will test the naïve generalizability of the Mexican collective remittances model. The Mexican Migration Project (MMP) data extends into Latin American with the Latin American Migration Project (LAMP) and provides a dataset that is congruent with the MMP and therefore conforms to a statistical model fit to MMP data. The second section analyzes countries outside the Americas in light of the result of the modeling with

the LAMP data. If the Mexican model fits LAMP data relatively well, then it suggests the Mexican model of collective remittances are applicable to other countries and regions of the world. Otherwise the Mexican model is likely not a good fit for other regions of the world. The second section will look for the similarities between Mexico's collective remittances and those to other regions of the world, and highlight aspects that are important for collective remittances to other nations that are missing from the model of collective remittances to Mexico.

With a focus on developmental strategies and state-migrant partnerships, the comparison between nations will reveal differences in how diasporas and governments of each nation solicit and manage collective remittances from migrants for development. The results will shed light on the role migrants and governments play for migration & development in each nation, and through the comparison suggest generalizable concepts from Mexico's experience with collective remittances that are applicable to future analysis of new or continuing diasporas.

For the sake of brevity, this chapter cannot analyze enough nations in each region to provide a complete representation of emigration, but the primary emigrant nations in each region generally are characteristic of international migration from the region. The interregional analysis will compare Turkey from Europe, India in Asia, Morocco in Northern Africa and Zimbabwe in Southern Africa. The type of data also does not exist to facilitate application of a common statistical model of collective remittances across all nations of the analysis. The global analysis will depend on theory from previous literature, theory developed from the empirical analysis of Mexican data, and analysis of application of the Mexican model to data from Latin and Central America.

Tables 4.1 and 4.2 display country stats for the nations of the analysis. Overall, Turkey is the most developed nation of the analysis, and Zimbabwe the least. The Latin and Central American diasporas have either about half or all of their population in the U.S., Morocco, Turkey, and Zimbabwe have less than one percent of their population in the U.S., and reside largely in France, Germany, and the U.K.

Western liberalized nations and core nations are notably absent from the analysis. The U.K. ranks 8th in emigrant population, and Russia ranks 3rd, but more remittances leave these nations than return, and migration is not a modern strategy for development of U.K. or Russia. Turkey

ranks 10th in emigrant population and has less emigrants than the U.K. in terms of both percent and absolute numbers. Turkey is a nation currently in transition from a net importer of remittances to a net exporter, and despite a smaller diaspora than some more developed nations, Turkish migrants will likely remain an important aspect of Turkey's economic and political development in the next generations.

With an interregional and international comparison, anchored to Mexico as an exemplar, this chapter seeks to explore the features of the triad of home state, host state, and diaspora that support and drive collective remittances and other forms of transnationalism and development. The challenge inherent in an international comparison of migration and development is to embed knowledge of local contexts in an analysis of global and regional dynamics. As analysis transcend community scales, local realities of migration and development quickly give way to abstract metrics of migration, money, and political influence. Previous chapters developed a model for Mexican collective remittances based upon migrant's motivations. Motivations of migrants provide a generalizable and scalable foundation for linking micro-level study to macro-level systems. Emigrant's destinations and the manifestation of development in emigrant's home communities may vary dramatically, but the motivation of agents at all scales is relatively less complicated, even if motivations are complex.

## 4.1   Latin American collective remittances

Remittances to Latin America reached about 23 billion annually by 2004; including 16 billion to Mexico, 5 billion to Columbia, between 2 to 3 billion to Dominican Republic, El Salvador, and Guatemala, and less than half-a-billion to Ecuador (Cortina & de la Garza, 2004). With the rising volume of remittances comes increased investments of expatriates in housing, land, and businesses at home, and greater levels of cross-border civic and philanthropic activities (Portes et al., 2007). Emigrants and states alike recognize the significance of a new transnational gestalt (Guarnizo et al., 2003; Vertovec, 2004). Latin and Central American states establish ministries and agencies to oversee emigrant relations and provide incentives to encourage remittances, investment, and philanthropy, and the emigrants organize to leverage their rising political power and enforce greater

state transparency and participation (Villacres, 2009). Latin American diasporas have similar experiences because the overwhelming majority of emigrants reside in the U.S., and their home nations often have similar histories of internal conflict and economic and foreign relationships with the U.S.

Many Latin American diasporas are conflict driven and have tense histories with their home states. The U.S. exacerbated or ignited conflicts in Latin and Central American nations in the mid-twentieth century but today serves as host to the migrants who fled these conflicts. Civil wars and state violence broke out across Central America, and violence was especially intense in El Salvador, Guatemala, and Nicaragua. Destability that began in El Salvador and Guatemala ignited fears from states of neighboring Honduras, Nicaragua, and Costa Rica. Honduras' military independently scoured the borders for guerrilla movements spreading from neighboring populations. In Nicaragua, leftist-revolutionary movements in 1979 overthrew the dictatorial Somoza dynasty and installed a new leftist government. From the U.S. the Reagan administration internationally isolated the new Nicaraguan government, and supported right-wing rebel groups often composed of disbanded Nicaraguan military. All Central American nations experienced sudden shifts as populations fled conflict. Relatively peaceful nations, like Ecuador, absorbed large numbers of displaced people.

Latin and Central American nations share two similarities with Mexico. First is that most Latin and Central American emigrants travel to the U.S. A common host nation eliminates variability from analyzing multiple diasporas spread across multiple host nations. Second is that Latin And Central American emigrants and collective remittances support projects similar to those in Mexico. Emigrants from Mexico, Latin, and Central America show a willingness to fund public goods, whereas worldwide emigrants seem to prefer using collective remittances to fund business opportunities. Similar preferences and meanings for applications of collective remittances mean that metrics of collective remittances are more faithfully measuring the same thing in each community.

The similarities between Mexico and Latin and Central American are critical for the analysis, but differences among nations of the region also pose difficulties. Migration patterns between Mexico and the U.S. emerged from geographical and historical relationships between the two nations.

Mexico shares a border with the U.S. and migration patterns between Mexico and the U.S. arose from U.S. business needs in the 1800s. Mexican migrants are historically seasonal and since the new century migration between Mexico and the U.S. is net zero (J. S. Passel & Cohn, 2009; J. Passel, Cohn, & Gonzalez-Barrera, 2012). 85-95% of returnees to Mexico are voluntary (Hazán, 2014). Migration from Latin and Central America began with conflict that forced people to flee for their physical integrity with indirect economic impacts on almost everyone in the nations. Latin and Central American emigrants must cross through Mexico to reach the U.S., where Mexico intercepts and deports the majority of migrants, and the U.S. forcibly returns about half of those who reach the U.S. border (Orozco & Yansura, 2015). Only 2-5% of Central American migrants voluntarily return (Orozco & Yansura, 2015). The differences in migration patterns mean that metrics of migration and migration stage do not have the same meaning for each nation. The conflict driven migration of Latin and Central America may also not equally impact all communities so that those Latin and Central American communities with any migration have on average greater migration prevalence than communities in the Mexican Migration Project data. Unequal geographical distribution of migration is an important aspect of migration stages and migrant network theory, and models calibrated to Mexican migration stages may not be applicable in Latin and Central America.

The following sections first describe the nations in the analysis, and then present the statistical data. The qualitative descriptions are necessary to understand the statistical descriptions. The final sections present and apply the Mexican model of collective remittances to the Latin American data, and then refit the models with the new data. The section ends with a discussion of the results of the refit statistical model, and the implications for generalization of empirical models beyond Mexico and Latin America.

### 4.1.1 Colombia

Colombian migrants are distinct in that until the end of the 1980's they were almost exclusively upper-middle and upper-class professionals. Internal conflicts fueled Colombian migration for most of the 20th century. Most conflict refugees remain within Colombia and that nation now hosts Earth's second largest internally displaced population. Those who left Colombia include only those

with the requisite wealth, education, or social connections. The exit of a substantial proportion of Colombia's professional, skilled, labour force resulted in a brain drain. By the 1990's greater numbers of Colombians were entering the United States, possibly enabled by Colombia's existing diaspora. Colombian migrants also compose one of the largest groups of U.S. asylum applicants, along with Salvadorians and Chinese.

The Colombian Conflict began in earnest in 1964 when soldiers of the Colombian Army loyal to the National Liberation Front–a new political coalition–began raiding peasant communities in search of bandits and communists. The conflict was preceded by unrest and civil war with roots to the 1920's, but the 1964 event solidified the existence of guerrilla groups fighting against the Colombian state. The guerrilla groups exclaimed a message of greater equality through communism while the Colombian state insisted the groups threaten national stability and order. The Colombian Conflict is a low level civil war that persists even to the present as the state continues to battle guerrilla groups funded by drug trade. In the 1990s the violence intensified as drug cartels began to interfere in the conflict. But by 2002 tensions greatly deescalated as the Colombian state retook many guerrilla held lands and many guerrilla and paramilitary organizations demobilized.

The Colombian diaspora's most successful venture is Conexion Colombia–which is an NGO that channels money to Colombian development projects but is unassociated with any particular community. Conexion Colombia, according to it's homepage, is an organization that operates with the help of a network of 40 foundations and allied organizations. Conexion Colombia began in 2003 as the Colombian Conflict was waning and developmental projects became less risky. Between 2003 and 2005 Conexion Colombia channeled 2 million USD to 22 projects around Colombia (Khoudour-Castéras, 2007). Conexion Colombia ceased after 11 years in Oct 2014, but left a message on the organization's web page that it had accomplished its goal and felt confident that Colombians would pick up where Conexion left off.

Colombia's diaspora organizes primarily via NGOs unassociated with any particular location or hometown. This contrasts with most other diasporas that depend upon HTAs. Three important structural factors may cause this difference. First is that Colombia's diaspora is dispersed across and within host nations and do not gather in ethnic enclaves. Second is that Colombian emigrants

have an antagonistic history with their state. Finally Colombian emigrants are more often well educated and professional and willing to locate where they will have the best job opportunities and life chances. All these factors result in a diaspora that lacks geographically based social cohesion that may be necessary for HTAs, but possesses the wealth and human capital to engage a broad range of partners often via virtual platforms.

Geographic and social obstacles haven't slowed the philanthropy of Colombia's diaspora. The diaspora engages, instead, via religious organizations, non-profits, and NGOs, and often does so using the web. Colombian emigrant's greater wealth also attract non-profits targeting wealthy migrants for large individual donations to assist with development in the home nation. Most existing Colombian HTAs emerged to provide relief to a hometown or locations following a natural disaster (Portes, Escobar, & Radford, 2005). Qualitative data also suggest Colombia's diaspora philanthropy more often fund productive and humanitarian projects–in contrast to other Central American diasporas that often fund churches, sports facilities, and other non-productive projects.

### 4.1.2   El Salvador

El Salvador has unique characteristics that make it an interesting case for the study of collective remittances. Like other Central American nations it suffered through long and violent civil wars that generated a large refugee diaspora. But today, like Mexico, El Salvador has implemented policy to leverage its diaspora for social and developmental goals. Thus today El Salvador has swung, schizophrenically, from violently driving out it's population to aggressively courting that same diaspora for developmental help at home. El Salvador lacks Mexico's long migration history, and both family and collective remittances to El Salvador have arisen in similar time frames. Where Mexico's collective remittances exist within the context of a long relationship between migrants and their families, state, and communities, El Salvador's diaspora and transnationalism is much younger.

The Salvadorian diaspora was driven by conflict between the state and leftist guerrilla fighters. The Salvadorian Army used a strategy of forced displacement to eliminate the civilian populations suspected of hosting guerrilla fighters, and as a result civilians fled en mass to seek asylum abroad. Unlike their Colombian peers, Salvadorian migrants often come from conditions of poverty. The

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Salvadorian army used widespread violence against civilians and forced broader ranges of social classes to flee for their lives.

In conflict driven diaspora migrants rarely have time to make plans for travel or employment. Many people fled to Honduras, with which El Salvador shares its longest border. Honduras hosted many refugees, but economic turmoil in that nation led to the Honduran population and politicians to blame their problems upon the refugees, and shortly the Honduran government discharged many refugees back to El Salvador despite dangerous conditions. Refugees at this time began to flee in greater numbers to Guatemala and Mexico, but here also they found very little assistance. Ultimately the Salvadorian diaspora pushed into the U.S. and by 1990 half a million Salvadorian emigrants entered U.S. borders fleeing violence and its effects in their home nation.

The rate of Salvadorian refugees into the U.S. began to fade following the conclusion of the civil war in 1992. Recently, however, Salvadorian refugees again began crossing U.S. borders in greater numbers, but this time fleeing from drug and gang related crime. Children are especially overrepresented in contemporary migration because they specifically are targeted by cartels and gangs for recruitment, and failure to enlist can result in brutal punishment for both children and their families. Families might send young ones on the trek to the U.S., often alone and with nothing more than a scrap of paper holding the name, address, or telephone number of family or friends in the U.S. Rather than cross into the U.S. and attempt to evade authorities, these migrants often head straight into the detainment of border patrol hoping to obtain help.

Inspired by Mexico's *tres por uno*, the Salvadorian state initiated a similar program. The Salvadorian program was more centralized and the state retained more power to choose locations, select projects, and delegate partners and managers to the project with little or no input from participating HTAs (Burgess & Tinajero, 2012). This may reflect the synthetic nature of the program relative to *tres por uno*. In Mexico migrants often took initiative in designing *dos por uno* and *tres por uno*, and the state only cooperated out of political necessity. El Salvador's program was centrally designed, centrally initiated, and the state retains more control in program applications.

El Salvador's diaspora is younger than that of Mexico, and the Salvadorian state has been engaged with its diaspora for a substantial portion of the diaspora's history. In El Salvador family

remittances and state initiated remittance matching programs arose in similar time frames. Collective remittances to Mexico exist within the long historical context of family remittances, and are difficult to separate from family remittances. This is not the case for El Salvador, where the Salvadorian state jumpstarted collective remittances for development with aggressive policy designed to entangle the diaspora with the state and third party NGOs in order to leverage remittance dollars for homeland development. Case studies of El Salvador find that family remittances are, at best, neutral but that collective remittances are most likely beneficial despite the distrustful relationship between the diaspora and the state (Villacres, 2009).

El Salvador's deep involvement in its diaspora remain one of that nation's notable characteristics. In the U.S., El Salvador lobbies for its migrant's rights and refugee status. Despite lacking a long history of migration Salvadorian emigrants and communities are well organized and the state is eager to use the Salvadorian diaspora to advance developmental goals. El Salvador is an international counterexample to the long creative process underlying transnational engagements between states and older diasporas like those of Mexico and Morocco.

### 4.1.3 Guatemala

As in other nations afflicted by the Central American Crisis, Guatemalan emigrants fled civil war in the last quarter of the 20th century. What differentiates the Guatemalan civil war from others is the degree of violence against indigenous people, with about 83% of those killed being Mayan and close to a million Mayans dislocated from their homes (Commission for Historical Clarification, 1999).

The first armed confrontations of the Guatemalan civil war began in 1962. The war smoldered through the 1960s and 1970s. Early phases did not prompt significant migration to the U.S. but generated a trickle of political refugees who often fled to Mexico City. By the late 1970s Guatemalan forces focused efforts in the Western Mayan highlands where leftist guerrillas often operated. The counter-insurgency sparked a flood of mostly Mayan refugees across the Mexican border where a few continued to the U.S; most, however, were not granted legal asylum in either Mexico or the U.S. The bloodiest period began in 1978 and continued until 1985, and it is during

this time when emigration increased to the greatest levels. The years between 1981 and 1983 were the most intense and when the most people were displaced. Between 1981 and 1983 the Guatemalan counter-insurgency destroyed 440 highland villages, killed or "disappeared" 150,000 civilians, primarily Mayans, internally displaced 1 million villagers and prompted about 200,000 across the Mexican border (Ball, Kobrak, & Spirer, 1999). After 1985, even as violence was winding down, the Guatemalan state continued or expanded violence against indigenous people, and from 1986 to the end of the conflict in 1996 the Guatemalan security forces violated and harassed the physical, social, and economic integrity of indigenous populations.

Guatemala's conflict disrupted trade and cut the nation off from external assistance. Many people lost their livelihoods due to the effects of violence on the national and regional economies. Economic consequences of conflict pushed additional labour migration to join the flows of conflict refugees. Guatemala has a larger population than El Salvador and both nations suffered comparably violent civil wars, but Guatemala's U.S. diaspora is only about 880 thousand compared to El Salvador's 1.2 million (Migration Policy Institute, 2015)

Guatemalan refugees generated an echo of labour migrants. Most Guatemalan emigrated to the U.S. after the conflict when refugees helped families and friends across the border. Guatemalans were a small fraction of the population in the 2000 U.S. census, but by the 2010 Guatemalans are tied with Dominicans as ninth largest foreign born population. When Guatemala's diaspora began to balloon in the new century remittance flows went from 584 million in 2001 to 3000 million in 2005 (Migration Policy Institute, 2015).

Guatemala's large indigenous population define the organizations within it's diaspora. In a survey of Guatemalan hometown associations in Los Angeles, 8 of 33 organizations were indigenous members only (Popkin, 2003). Whereas most of the 25 Latino or mixed ethnicity organizations cooperate loosely with government or state actors, indigenous organizations worked almost exclusively with religious organizations in their home town, and the indigenous organizations typically federate only with other indigenous organizations (Popkin, 2003).

### 4.1.4 Dominican Republic

Dominican Republic (DR) is unique among Caribbean nations in that it experiences substantial immigration from Haiti, persistent internal migration, and emigration to the U.S. along with significant return migration. Unlike Central American conflict driven diasporas, Dominican migrants are motivated primarily by economic and filial goals. Without threat of violence the migrants have time to locate family, plan moves, or find employment and this also provides migrant networks the space, resources, and opportunity to emerge and grow.

Almost all DR migrants obtain green cards via family reunification; few Dominicans migrate solely for employment and almost all Dominicans in the US are legalized. Dominicans are also more likely to naturalize and 50% of Dominicans are naturalized compared to 46% naturalization rate among all other immigrant groups. Dominicans are more likely to possess at least limited English proficiency (LEP) yet also are more likely to be in poverty and have lower average incomes among Caribbean immigrants (Portes et al., 2007).

Dominicans began large scale emigration in the 1960s to escape economic and political turmoil following the assassination of dictator Rafael Trujillo. The U.S. Dominican immigrant population was 12,000 in 1960 but grew rapidly to 350,000 by 1990 and 879,000 by the year 2010. The Dominican immigration rate continues to accelerate and by 2012 960,000 Dominicans reside in the U.S. Dominicans currently are tied with Guatemalans at about 2.1% of the U.S. immigrant population but Guatemalan migration rates are surging faster than those of Dominicans. Women dominate DR immigration to the U.S. and about 56% of Dominican immigrants to the U.S. are female (Portes et al., 2007). Dominicans are the 5th largest Hispanic group in the U.S. and their population concentrates in New York City but substantial numbers also exist in Florida, Pennsylvania, Massachusetts, and New Jersey.

Dominican U.S. immigrants are more likely to hold jobs in service, sales, or transportation but less likely to hold professional careers or work in lowest skilled sectors like construction or natural resources, as compared to other Latin American immigrant groups. For unknown reasons the D.R. U.S. population is much more likely to have health insurance. Remittance flows from the U.S.

to the D.R. have increased faster than the rate of migration indicating that D.R. immigrants are increasing the volume of remittances they send home.

The HTAs of the Dominican Republic are typically political in nature, well funded, and very large with collective remittances being a secondary goal perhaps used to forward political ambitions. Qualitative research is limited but suggests that Dominican HTAs may be institutionalized closely with the Dominican political party system and HTAs serve primarily as political organizations (Portes et al., 2007).

### 4.1.5 Ecuador

Ecuador was controlled by a series of military governments between the 1960s and 1990s, but never experienced the bloody civil wars of other Central American nations. Political tensions were brisk into the 21st century and accompanied by widespread and frequent protesting. The nation suffered a series of economic shocks in the 1980s and 1990s, topped off by a rapid fall in the price of oil–Ecuador's chief export. An oil crash in the 1980s sparked a debt crisis and prompted Ecuador's first large scale emigration. The crisis was especially hard on subsistence farmers. The relative peace in Ecuador made it attractive to emigrants of other Central American nations, however, and even as Ecuadorians departed Central American immigrants, especially from Colombia, flooded across Ecuador's borders. Today Ecuador hosts the largest refugee population in Central America.

Ecuadorian emigrants differ from those of other Central and Latin American nations in that most go to Spain. Ecuadorians are the most numerous Latino immigrant group in Spain. Statistical analysis suggest that compared to their peers in the U.S. Latinos in Spain face less discrimination, stigmatization, and other social obstacles but are still subject to racism similar to that experienced by immigrants in America (Connor & Massey, 2010).

Collective remittances exist within the Ecuadorian diaspora primarily as informal grassroots transfers, but nonetheless maintain the link between Ecuadorian emigrants and their home communities, and are a forestay in the lives of Ecuadorian migrants (Boccagni, 2010). Due to the informal, uninstitutionalized, nature of Ecuadorian collective remittances the Ecuadorian government, organizations, and NGOs have little role in collective remittances. The great geographic distance between

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Ecuadorian emigrants and their home country imposes great social distance between the emigrants and their community's affairs. Ecuadorians are less involved in their home communities than other Latin and Central American emigrants, and are unwilling to donate where they have little control over the money and its applications. Maintaining collective remittances over greater social distance is one of the main obstacles confronting collective remittances for development.

Ecuadorian immigrants engage in collective remittances only under special circumstances and usually as part of spontaneous translocal initiatives, and almost never as part of a communal strategy as is the case with other Latin American nations. A common case is Ecuadorian migrants who pool funds to carry the hefty expense of shipping a body overseas following the death of another emigrant from their hometown. Repatriation of a body isn't an uncommon use of collective remittances (Orozco, 2003) but absent a broader program of pooling funds for development applications it's a stretch to consider funds for postmortem repatriation as collective remittances. Collective action among Ecuadorian migrants generally result from fragmented and parochial social ties, and rarely or never involve assistance from the state, charities, or NGOs that often help organize collective remittances among immigrants of other Latin American nations.

Ecuadorians show an ambivalent attachment to their homes, patriotism and homesickness mix with the economic hardship that triggered their emigration in the first place. Ecuador is more stable than many of the other Latin and Central American emigrant states, yet the vast distance between Spain and Ecuador obstructs cooperation as migrants feel they lack any control over projects and how donations are used by the government or community.

The great distance between Ecuadorian migrants and their homes questions the geographic agnosticism of transnationalism. Family and individualistic goals provide the most stable links between migrants and their homes, and for Ecuadorian migrants collective engagement is fleeting and unorganized (Boccagni, 2010). Mexican HTAs often emerge from family ties maintained by frequent visits, and the organizational ties in turn are strengthened by frequent visits between HTA members and authorities in Mexico. The geographic distance between Ecuadorian migrants and their homes increases the social distance between the migrants and their families and communities so that the Ecuadorian diaspora lacks the family and community support required for stable collective

transnational engagement.

### 4.1.6 Data

The Latin American Migration Project (LAMP) extends the surveys and methodologies of the MMP to Latin American states with large emigrant populations. LAMP began operations in 1982 and last completed a major survey in 2012. LAMP provides data similar if not congruent to that in the MMP so that the collective remittance models fit to MMP data also conform to LAMP data. LAMP data covers fewer communities than the MMP and may skew towards high migration communities.

Latin and Central American migrants emigrate to wider range of destinations than their Mexican peers, who emigrate almost exclusively to the US. Along with a wider range of destinations come also a wider range of currencies and host economies. To limit complexity and preserve comparability with Mexican emigrants, the analysis restricts the data to US emigrants. The assumption is that US emigrants are in a better position to supply and manage collective remittances to Latin or Central America than emigrants in non-US destinations. Most Guatemalans and Dominicans emigrate to the U.S. The majority of Ecuadorian emigrants travel to Spain or Italy, and large portions of Colombians also emigrate to the European Union, but most returnees to these nations are emigrants to the U.S. For Ecuadorians the assumption may obtain. From Spain and Italy, collective remittances may be an important part of an Ecuadorian's transnational identity, but the geographical separation obstructs their ability to observe and influence the impacts that collective remittances have on their homes. Among Colombian emigrants the non-US migrants may be equally important to US migrants. The Colombian diaspora is organized online, where emigrants can observe and take an active role collective remittances, no matter where they are.

To conform to the statistical model of Mexican collective remittances, income data must be in Mexican Pesos and US Dollars. Because the analysis restricts the data to US immigrants, all migrant wage data is in US dollars and only needs to be converted to a consumer purchasing index (CPI) using US inflation. The analysis converts all home community income into Mexican Pesos but uses the home nation inflation to calculate CPI.

A key element of the Mexican model is a method for classifying stage of migration. The application of the Mexican model to LAMP data begins by classifying LAMP communities using the Mexican stage classification model. The Mexican stage model uses community average months of total migration experience and community average years since first migration to classify the stage of a community. Figure 4.1 shows the Mexican and LAMP data together, and illustrates the difficulty applying the Mexican model in Latin America. The community average months of U.S. experience in Latin and Central American communities is similar to the Mexican communities, but the minimum value of community average years since first migration is higher in the LAMP sample. Migration from Latin and Central America began with conflict in the region, and any community from the LAMP sample will have migrants from the 1970s and 80s, when conflict was the most intense, so the community average of years since first migration will have an upward skew within the LAMP sample. The data driven model does not consider the externalities of the LAMP data, and classifies 27 of the 28 LAMP communities in stage 3, although a human analyst might consider most of the communities in stage 2.

An advantage of limiting application of the Mexican model to Latin America is that collective remittances within Latin American diasporas are similar enough to Mexico's diaspora that the metrics from the Mexican models are applicable to the Latin American data. The descriptive statistics in table 4.3 suggest that collective remittances may not have the same nature in all Latin American diasporas, however.

No Colombian community has completed any project with help from migrants, but case studies show that Conexion Colombia is one of the most successful development oriented migrant organizations among all diasporas (). Conexion Colombia is not hometown based, and furthermore may not support the infrastructure and community restoration type of projects more common for Mexican collective remittances. Thus, the metrics of collective remittances in the Mexican models may not represent the strategies and projects more common within the Colombian diaspora. It is also possible that Conexion Colombia routes collective remittances to areas most in need, and areas of Colombia most in need may not always be emigrant communities.

Another interesting pattern is that Guatemala reports the most help from emigrants. Guatemala

and Dominican Republic have very similar population sizes in the U.S. Guatemalans work for lower wages and come from poorer communities but have migrant organizations more similar to Mexican HTAs than the Dominicans whose migrant organizations are usually politically oriented. The organizational differences may help explain why Guatemalan emigrants on average help with more projects than any others in the LAMP data.

Ecuador's transnational relations with their homes may be the most different from the others because Ecuador's largest emigrant population lives in Europe. Ecuadorians in Spain or Italy are so far from home they rarely engage in large domestic projects because they have little control. Nonetheless Ecuadorian communities report that migrants on average helped with 1.5 types of community projects. Ecuador raises questions about communities that might coordinate HTAs from multiple nations, and what might be the relationships between HTAs located in two different nations. It seems likely that Ecuador's diaspora in the U.S. is responsible for the most collective remittances, but via community coordination diasporas in different nations may have a joint effect on collective remittances.

El Salvador is notably absent from the data. The Salvadorian respondents in the LAMP data provided no information on the projects migrants help support in their home communities. El Salvador's diaspora may be the most similar to Mexico's in terms of collective remittance strategies and goals, so it is unfortunate that the data is unavailable to apply the Mexican model to any Salvadorian communities.

Descriptive statistics are overall reasonable but in some cases suspicious. The Guatemalan diaspora is the poorest, and multiple data sources support that the Colombian diaspora is the wealthiest, but the Dominican respondents claim to be equally or more wealthy than their Colombian counterparts. Dominicans also report the greatest domestic wages, yet the Colombian economy and GDP outrank that of the Dominican Republic. It is possible that Dominicans are more likely to over report wages, or that Colombians are likely to under report wages, or both. Thus, another problem of international comparisons via statistical models are cultural differences among nations in data reporting. Another explanation is that returnees–those available to be sampled by LAMP–differ from emigrants who do not return or return less frequently. In contrast many Mexican emigrants

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are seasonal, and returnees represent a large portion of the emigrant population. Thus differences in migration patterns are another confounding factor of international comparison.

### 4.1.7 Applying and extending the Mexican model

Table 4.4 show the collective remittance models of total, productive, and non-productive projects fit to Mexican data. The models were fit to a quasi-likelihood with variance defined as a linear function of the mean, commonly known as quasi-Poisson, and used an exponential link $\hat{y} = e^{X\beta}$.

Figures 4.2 plot the predicted against the observed values, or calibration plot, for the count of types of projects that migrants help fund in each community. The three plots are for total, productive, and non-productive projects. The model overpredicts the data because most cases are zero, but underpredicts those cases that do receive any collective remittances.

Figures 4.3 show predicted against observed values for the Mexican data. The models were fit to the Mexican data and with it make more accurate predictions. As with the LAMP data, the many zeros result in a model that underpredicts the counts of types of projects in those communities that do receive collective remittances. Underprediction is most pronounced in the prediction of productive projects.

Both Mexican and LAMP data have large numbers of zeros and a quasi-Poisson model does not do enough to model extra zeros. Communities that receive any collective remittances tend to have more types of projects completed with collective remittances than a single quasi-Poisson can allow. A zero-inflated model might be more appropriate, and could analyze the generation of communities without collective remittances as a separate process from the generation of communities with any collective remittances.

Refitting the models with the Latin American data may also improve the fit. The refit models include a random country-level effect to control for any omitted country-level variables. Random effects are ideal for the model because the Latin American data has few communities in each country and a fixed effect would over fit the model to the new data. Random effects do not enter into predictions and are ideal for application of the model to countries not in the data. The models fit to Mexican data used quasi-likelihood, but the random effect models use a case-level random

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effect to control for overdispersion (Elston, Moss, Boulinier, Arrowsmith, & Lambin, 2001; Harrison, 2014).

Table 4.5 show the model refit with Latin American data. The refit equations are similar to those of fit to the Mexican data, but the negative effect of municipal population and domestic wages are stronger and the intercepts are shifted downwards. The stronger negative effects imply lower overall predictions that worsen the existing problem of underprediction.

Figures 4.4 and 4.5 show calibration plots of the refit models for LAMP and all data. The new data does not help the model. The larger negative effect of domestic hourly wages suggests that Latin American emigrants might contribute relatively more to poor communities. The larger negative intercepts ensure lower predictions. Adding new data did not solve the problem of too many zero counts in the data. As a model incorporates greater variety of contexts the problems of zero inflation may compound. If data is not available to solve the problem with a quasi-Poisson model, then a zero-inflated model may be necessary.

The application and extension of the Mexican model of collective remittances to Latin American communities demonstrates the difficulty of applying models of collective remittances across multiple contexts. The poor performance of the models suggests that other countries and diasporas have attributes unrepresented within the analysis of Mexico, and may use collective remittances for different goals. The next sections will carry these insights forward into a worldwide comparison of collective remittances.

## 4.2   Collective remittances worldwide

Outside of North and South America, there exist few regions of the world where a single host nation overwhelmingly directs surrounding migration patterns. Close exceptions are Russia, Germany, France, and the U.K. who all support large immigrant populations due to their economic might, colonial history, and geographic locations. Worldwide, immigrant nations are often also emigrant nations, for example the U.K., Russia, and Turkey have large immigrant and emigrant populations. The US is largely an immigration nation, but elsewhere in the world migration is rarely as one-

sided, and most nations have both immigrant and emigrant populations, and a diversity of home and host nations.

Collective remittances within Mexico's U.S. diaspora are a paradigm for collective remittances and migration & development worldwide. Mexico serves as a model for policy makers and activists, and a base for academic comparisons. The Mexican diaspora in the U.S. is more likely an exception, and the models and theory that research has developed on Mexican data may not be wholly applicable to other diasporas.

The sections below describe the diasporas and transnational engagement of four nations: Turkey, Morocco, Zimbabwe, and India. Each diaspora supports some sort of collective remittance, but the forms and strategies each diaspora employs are different from Mexico and each other. The criteria for selecting these nations is that each is a primary emigrant nation in the region. Some regions are misrepresented, for example Asian migration is dominated by China and India, but the analysis discusses only India because China's diaspora is mostly intraregional or concentrated in the U.S. and Australia. India's diaspora too has an intraregional component and Asia is characterized by rich intraregional migration. But again the comparison is concerned largely with interregional patterns. This necessarily gives a different picture of a region's migration patterns.

### 4.2.1 Turkey

Turkey is one of the world's leading emigrant nations with about 6% of it's population abroad, but today is slowly transitioning from an emigrant to an immigrant nation (Içduygu, 2009). Beginning in the 1960s Turks began emigrating to West Germany in large numbers. Large scale labour migration continued through the mid-1970s with the vast majority departing for Germany and lesser flows to France, Netherlands, Austria, and later Middle Eastern nations. In the mid-1970s Germany and other popular labour destinations closed the door on new labour migrants and encouraged immigrants to return home. Turkish labour immigrants had to choose between settling permanently or returning home but losing the opportunity to work or settle in Europe. Many Turkish immigrants chose to settle and bring their families, thus through the last quarter of the 20th century labour emigration from Turkey faltered as filial migration increased.

Today Turkey is becoming an immigrant nation. Turkey has hosted immigrants from the Balkans and surrounding nations since the first quarter of the 20th century. Throughout the Cold War immigrants began to arrive in greater numbers from Eastern Bloc nations. Beginning in the 1980s asylum seekers arrived from Iran and Iraq and later from former Yugoslavia and ethnic Turks from surrounding regions. In 2003 Turkey approved the "Law on work permits for foreigners" and unintentionally marked official acceptance of Turkey as an immigration nation. In 2010 the number of immigrants to Turkey exceeded the number of emigrants leaving the nation (Içduygu, Göker, Tokuzlu, & Elitok, 2013). The increase in immigration is attributable to conflict in North Africa, political turmoil in the Eastern Bloc, and return of emigrants.

The majority of Turkish emigrants travel to Germany. Other major host nations include France, Netherlands, the U.S., Austria, and Saudi Arabia. Turkish diaspora to Germany began with Germany's economic boom of the 1960s and 70s that resulted in acute labour shortages. Initial waves of Turkish labour migration were about 33% skilled but declined as Turkish emigration expanded. In the early 1970s Europe entered a recession and oil crisis while simultaneously the Middle East began an economic boom, and during this time a fraction of Turkish emigration shifted also to Middle Eastern nations. By the 1980s Germany was extinguishing labour migration and in response Turkish migrants elected to settle permanently and bring their families. Since the 1980s more emigrants depart Turkey for family reunification or education, and represent an increasingly skilled portion of Turkey's population.

Germany pulled Turkish migrants across their borders with the 1961 labour recruitment treaty. This makes Turkey similar to Mexico in that Mexican emigration to the U.S. began when U.S. business interests actively recruited Mexican workers into employment. Germany's initial treaty limited Turkish workers to a two year stay with the idea that limiting the stay would return larger number of workers to Turkey with new skills and human capital and prevent Turkish migrants from settling permanently. But by 1964 German business interests lobbied to remove the two year limit to avoid continually training new workers.

Sociopolitical turmoil and a series of military coups in Turkey, roughly one a decade beginning in 1960, encouraged additional emigration. Threat of physical violence was perhaps a greater

motivation for Turkish emigrants than for Mexicans, but Turkish migrants are not like the conflict-driven refugees of Central and Latin America. Turkish migration was primarily economic with threats against physical integrity also pushing out many skilled migrants.

Economic factors initiate migration but for Turkish emigrants transnational networks are the strongest pull factor (Unan, 2009). Turkish labour migration to Germany began later than Morocco's into Spain, France, and Italy because Moroccan communities possessed migrant networks established from colonial migration (Içduygu, 2009). Today Turkish migrant networks associate locations in Germany or France with a particular region or village in Turkey. Turkish HTAs also serve to facilitate networking between migrants and business contacts and politicians back home, perhaps moreso than HTAs of other diasporas. Emigrants are highly regionalized also within Turkey. As with emigrants from Mexico, most emigrants from Turkey originate in wealthy and middle income regions (Unan, 2009). Middle income regions send the most emigrants but wealthy regions also act as transition zones where people migrate internally before making an international trip.

Remittances to Turkey are declining rapidly. Turkish migrants remitted almost 2.8 million in 2001 and by 2011 this amount declined to 1 million. Between 1960 and 1980 remittances covered about 80% of Turkey's trade deficit and 60% of that nation's current account deficit. Remittances covered about 50% of the trade deficit in the 1980s, around 35% in the 1990s (Içduygu, 2005), and by the late 2000s remittances were around only 2% of the trade deficit (Içduygu, 2009). As Turkish migrants settle and bring their families they divert money from remittances to savings in their host nation (Cortina & Ochoa-Reza, 2008). Concurrent with declines in remittances Turkish migrants also have increased "suitcase trade" revenue, wherein migrants buy goods in Germany, France, or Russia transport the goods in their luggage, and resell them for a profit in Turkey, or vice-versa. In 2007 suitcase trade revenue was 6000 million, almost double annual revenue of suitcase trade of the previous year, and five times more than remittances in 2007 (Içduygu, 2009).

The initial decline of remittances coincided with both economic crisis in Europe and increasing permanent settlement of Turkish immigrants in Germany. Remittances are usually most dependent upon events in the migrant's home economy but Turkish migrants in Germany also seem to react to German economic cycles (Bettin, Elitok, & Straubhaar, 2012). Labour emigrants who remit

generally work in a nation with a vastly superior economy to migrant's home nations, but this is not the case for Germany and Turkey. Turkey boasts Europe's 6th largest economy so that economic movements in Germany are just about as meaningful to Turkish immigrants as the cycles in Turkey. Turkey weathered well the economic crisis in the new century but remittances continue to decline due to permanent settlement and possibly because the Turkish nation and families are less dependent upon remittances.

Migrants are sending fewer remittances but remain transnationally engaged. The recently industrialized Turkish economy is one of the fastest growing in Europe, but the state maintains a nonchalant attitude of migrants and is selective in receiving returnees (Bilgili & Siegel, 2014). In interviewing, representatives from the Department of Turks Abroad and Relative Communities insisted that Turkish emigrants can better assist in the development of Turkey by staying abroad (Bilgili & Siegel, 2014). From the first waves of labour migration, Turkey linked migrants to development, provided migrant's incentives to invest in Turkish business, and favored for migration those who would contribute the most in remittances and investments (Bettin et al., 2012)

In the early 1960s the Turkish state launched two mechanisms designed to channel remittances towards development projects. These mechanisms are a form of state engagement with emigrants and with a developmental focus, but neither are HTAs because they are entirely state initiated and located in Turkey. The programs are managed by the state and provide incentives to migrants to participate in development, but do not depend upon migrant organizations or networks.

The first mechanisms launched in 1962 were village development cooperatives with the mission to promote development in rural areas. Between 1965 and 1973 roughly 1400 cooperatives registered (Köksal, 2006). Village development cooperatives were designed to encourage rural development by prioritizing emigrants who pledged to assist the cooperatives with their savings from abroad. Migrants abused the intent of cooperatives by using them to secure priority labour migration, and the Turkish state often failed to provide sufficient support (Köksal, 2006). Despite these failings the money emigrants funneled to rural communities via the cooperatives helped to industrialize agriculture in Turkey through the 1960s (Içduygu, 2009).

The second initiative were worker's joint stock companies. Emigrants launched the first com-

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panies in the mid-1960s and by 1975 had registered one hundred companies. The joint stock companies were nationally, not hometown, based and overall received more migrant and state support. To qualify as a joint stock company the organization had to be migrant owned and at least 50% financed with migrant's capital. Workers' joint stock companies were supposed to channel remittances into underdeveloped regions by allowing migrants to establish and manage business in Turkey while remaining abroad. Migrants established about 600 joint stock companies since the 1960s and in the mid-2000s 20-30 remained active (Içduygu, 2006).

Early Turkish HTAs emerged in the 1970s and focused on cultural activities, similar to the first HTAs of Mexico and other nations. Where Mexican transnationalism has grown towards social and political goals, Turkish HTAs serve transnational business ties between migrants and their home towns. Trade networks, in fact, appear to be essential for Turkish transnationalism and HTA activity (Caglar, 2006). Turkish HTAS often invest in private sector and economic development projects. The transnationalism and remittance flows of the Turkish diaspora are fundamentally different from those of the Mexican emigrants in the U.S.. Political-economic geographical contexts explain some of the difference in Turkish expression of transnationalism (Caglar, 2006).

As with other nations, Turkish HTAs began to emerge in significant numbers beginning only in the 1990s (Caglar, 2006). Turkey's state-diaspora relation highlight the economic-rational aspects of transnationalism. The Turkish state uses spatial economic incentives to encourage collective remittances and investment in target industrial districts (Caglar, 2006). Turkey provides spatial subsidies by incentivizing investment from migrants in particular localities, which results in HTAs based in Germany focusing on particular locations in Turkey. HTAs also facilitate engagement between migrants and home officials, buttressing migrant networks and in turn supporting business engagements between migrants and their homes. Turkish state policies seem limited to these economic incentives but travel by local authorities to meet diaspora organizations in Germany have increased into the 21st century. Personal visits are also an opportunity for transnational businessmen to build status or rapport with mayors and other local authorities from Turkey. Turkish local authorities travel to meet diaspora organizations and provide remittances their transformative capacities. They are transformative not only because the market surrounding this form of capital flow

has expanded but also because the enlarged market draws in new actors who ground the neo-liberal agenda in recipient countries.

Transnationalism of the Turkish diaspora is founded upon entrepreneurial and industrial networks. The organizational interface between the Turkish state and diaspora is based in Turkish industry as much as it is in migrant organizations abroad. Turkey's activity in its diaspora contrasts with that of Mexico where policies are intended to implement equitable social development often targeting poor and rural areas. The goals of the Turkish state are economic development, modernization, and political influence abroad. The unique forms of Turkish transnational engagement are a function of its economic and geographic contexts and the political demands that Turkish politicians place upon the diaspora.

Turkey's migrant-state partnerships differ from those of Mexico in nature but display a similar degree of institutionalization. Like HTAs of the Mexican diaspora, ambitious Turkish migrants often establish HTAs to help them pursue political and economic goals. Turkish politicians and business leaders visit HTA events, and the HTAs support entrepreneurial and political relationships. To the extent that strategies of the Mexican diaspora and state depend upon institutionalization of the relationship, similar strategies may apply also to Turkey.

While Turkey maintains developmental engagements with it's diaspora, it also hosts a growing immigrant population that may be involved in development of their home states. Turkey may be a in a position to experiment with multi-state migration and development strategies, leveraging both emigrant and immigrant populations for development while providing a developmental incentive to immigrant's home states.

### 4.2.2  Morocco

Of all nations of the globe, Morocco's might be the diaspora that is most similar to Mexico's. Morocco's economic and human development lags Mexico's, but both nations face similar developmental challenges and have nearby northern neighbors that once sought to import cheap labour. Morocco's emigration history into Europe is shorter than Mexico's into the US, but both nations historically pursue a policy of emigration and today are leading emigrant and transition nations.

Both nations also act as transit states for other emigrants leaving states of the Global South. Emigration from both nations accelerated in the last half of the 20th century, and now about 10% of both nation's population live abroad, but Morocco's population is about a quarter of Mexico's thus its diaspora is smaller in absolute terms. Morocco's diaspora reside in host nations that are similar to the US but Morocco's diaspora is geographically diverse and spread across nations of the EU and the UK. Most Moroccans travel to France and Germany, but also comprise large proportions of immigrants in Belgium and Netherlands (Zimmerman, 1996).

Morocco's emigration flows are rooted in the nation's geography and colonial history. Morocco's capital and major cities lay along the Atlantic coast and inland encircled within The Rif mountains to the north and the Atlas range to the east and south. Morocco's hinterlands, over the mountains, have historically remained beyond the reach of the central government and in a sense have always been a self-governed diaspora *in situ*. After a prolonged struggle with Germany, France gained protectorship of Morocco with the 1912 Treaty of Fez. French occupation was unpopular in Morocco. Moroccan askars stationed in Fez mutinied against their French commanders and threw the city in to chaos. The sultan fled to the present-day capital Rabat while the French shelled Fez into submission. The tribes along the river valleys and oases of the southern Atlas mountain ranges were too inaccessible. France instead recruited tribal populations into labour migration to work at French factories and farms and established colonial migration patterns that persist today. When Morocco's government later gained independence in 1956 it used the same tactics of labour exportation to resolve unemployment and political unrest in both The Rif and Atlas Ranges (Lacroix et al., 2010).

The Atlas range was the western cap of the trans-Saharan trade routes. Outposts guarded oases along the valleys of the High Atlas range, and over the range the imperial city of Marrakesh, Morocco's ancient capital, received travelers onto the Atlantic coastal plains. Today Marrakesh is depopulating and supported almost entirely by tourism. By the 20th century trans-Saharan trade was made defunct by the rise of sea-borne trade and the abolition of slavery. The once vibrant trading hubs had fallen into literal decay, the remaining population were largely Berber and Arab tribes of subsistence farmers dependent upon specialized techniques to work the arid soil. The tribes were historically isolated from government rule and were fiercely resistant to the French occupiers.

The French used labour migration to relocate and pacify population in the southern Atlas range.

The Rif is a mountainous region with fertile valleys and a coast on the Mediterranean; the region's name means "the edge of cultivated land." Rifian Berber tribes were for centuries self-governed and maintained a religious relationship to Morocco's sultan but defiant to political rule. Spain through the 19th century made military incursions into the Rif, and took protectorship of the Rif with the 1912 Treaty of Fez. Around August 1921 a Spanish general determined to conquer the tribal lands. The Rifian tribes in September 1921 responded by declaring themselves the independent Republic of Rif. The Rifian forces succeeded in pushing back the Spanish to Melilla–a city that today remains under Spanish autonomy and is a gateway for many African migrants into Spain. The Rifian general feared that assaulting Melilla would arouse an international backlash and disbanded his militia. Four years later in April 1925 the Spanish returned with French allies and an overwhelming force. The Republic of Rif resisted for a year but eventually surrendered to French forces and returned to Spanish Morocco in 1926. Morocco gained independence in 1956 and the Rif was reunited with a Moroccan state. The Rifian tribes remained restive and in 1958 revolted against state authority. Through the last half of the 20th century Morocco's sultans have neglected the Rif, abused human rights through the region, and pursued a policy of emigration to export the discontented and unemployed populations.

Morocco's colonial emigration patterns were translated into contemporaneity when in 1963, following Algerian independence, the Algerian-Moroccan border closed and at the same time Europe was within a reconstruction boom and demanding labour supply. Morocco didn't believe emigration would be a significant aspect of future foreign policy, but did see it as a short term solution to relocate unemployed, troublesome, or marginalized populations. Morocco in 1963 signed the first labour migration agreements with Germany and France, followed by Belgium in 1964 and Netherlands in 1969. Morocco's 1968-1972 five year plan was the nation's first to mention emigration and set a goal to increase labour migration at the end of the five years. Successive five year plans provided remittances an increasingly important role.

The 1973 Oil Crisis followed by the 1973-1974 stock market crash prompted a reversal of immigrant labour recruitment in both European nations and the U.S. Immigrant nations implemented

increased border enforcement and return programs but, paradoxically, migrants responded to the changing policy with even greater migration rates, reduced circular and return migration, increasing settlement, and increased illegal migration. This is a completely logical response for immigrants trying to "get in" and stay in as the national borders were becoming less and less porous. Spain and Italy required visas of Moroccans beginning in 1990 and 1991, respectively. During this time, for many Moroccans, undocumented entry became the only pathway into Europe. Moroccans were one of the greatest beneficiaries of amnesty and regularization programs in Europe.

By the 1980s Moroccan leaders understood remittances to be the difference between economic crisis and relative solvency (Brand, 2006). For Morocco, emigrants had gone from exportable labour to vital national resource. Moroccan politicians needed emigrant's support and so established organizations and positions to attend to emigrant's needs. Morocco in 1990 established Banque al Amal, the Fondation Hassan II for Moroccan Residents Abroad, and the Ministry for non-resident Moroccans. Banque al Amal was designed to be an emigrant's bank and remains operational today, but has largely failed to attract emigrant clients who overwhelmingly prefer the semi-state Bank Centrale Populaire (BCP). The Fondation Hassan II serves emigrant information needs, funds emigrant cultural education initiatives, and works to promote cooperation between the state and emigrants in social, economic, and cultural affairs. The Ministry, like the Fondation, supports emigrant funded-development but also provides investment planning and advice for emigrant investors. The 2000-2004 five year plan was the first to include emigrant rights, but the two plans since then, 2005-2009 and 2010-2014, have dropped the subject of emigration altogether. Morocco's most recent emigrant institution is the Council of the Community of Moroccans Abroad (CCME) established in 2007. The CCME was established for an initial period of four years amid demands that Moroccan emigrants have voting rights. In 2011 CCME was made constitutional and today has the mission of monitoring public policies in regards to Moroccans abroad. The Moroccan government also provides direct support for non-resident investment, and the Moroccans of the World Invest fund supplies 10% of the startup capital for business projects costing between about $250k and $1250k USD.

Moroccan emigrants have a contentious history with their state. Crown prince Hassan responded

to Rifian overtures of violence following Moroccan independence with a campaign of state terror, often bombing entire villages in the region. A history of violence often impedes diaspora-state cooperation, but this does not appear to happen in Morocco. The background of the relationship between the Moroccan diaspora and state bears some similarity to the conflict driven diaspora's of Central and Latin America. Despite past hostility Moroccan emigrants remain cooperative and engaged with their homes. In 2005 Morocco opened a truth commission to acknowledge past violence and work toward mending rifts between diaspora and state.

Home nation development occupies an important place for Moroccan emigrants but the environment and strategies are rather different from those of Mexico's diaspora. Moroccan emigrants have substantially lower literacy rates than Mexicans. Morocco's diaspora concentrate in France but disperse across a greater diversity of nations and languages than Mexico's. Moroccan HTAs have difficulty federating due to lower literacy rates and Europe's geographic, legal, and linguistic diversity. Moroccan emigrants seem to have no pan-European HTAs. Morocco's HTAs are less involved in host nation rights than those of Mexico and are more likely to work with NGOs and host nations than Mexican HTAs who partner almost exclusively with their home government. Moroccan HTAs also receive support from European states who assist with immigrant's home development as part of return policies based on the theory that developing home nations will mitigate the need for future emigration (Lacroix et al., 2010).

Moroccan migrant state partnerships are similar in nature to those of Turkey and favor investment and entrepreneurial goals over public goods. Moroccan state-migrant partnership efforts focus on providing investment information and start-up capital for migrant business ventures. The partnerships between Moroccan emigrants and their home state seems less institutionalized than that between Turkish or Mexican emigrants and their homes. Nonetheless Moroccan emigrants are possibly the most progressive in demand for political and voting rights.

Mexico is often the exemplar for migration and development but Morocco may be more salient to future diasporas of the world. Mexico's institutionalization of migration and development is made possible by the nation's long migration history into the U.S, high concentrations of emigrants in host locations, greater levels of literacy among emigrants, and relatively fewer linguistic and

legal obstacles to federation of migrant organization. Moroccans instead engage with their state in a piecemeal fashion and are more likely to partner also with host states or NGOs. Moroccan state emigrant programs are fractured but broad and provide a range of services to help emigrants support national development. Mexico's institutionalized transnationalism may, indeed, insulate Mexican emigrants from overarching development trajectories and strategies (de Haas & Vezzoli, 2010). Morocco's initiatives are often innovative and reflect personal commitments of politicians to support the diaspora and its financial goals but may fail to involve emigrants in a cohesive national developmental plan (S. Cohen, 2010). Moroccans use developmental finance to initiate productive enterprise, often in tourism or agriculture. Instead of Mexican emigrant's institutionalized and monogamous relationship with their home state, Moroccans demonstrate a greater willingness to work with other partners and attempt a wider array of developmental projects.

### 4.2.3 Zimbabwe

Zimbabwe was once a jewel of southern Africa, rich in agricultural lands and natural resources, but in the last decade fell into rapid decline. In 1980 Zimbabwe gained independence from Great Britain, and the new electorate selected as prime minister Robert Mugabe, who had emerged a hero after fighting for decades against white minority rule. Mugabe's government pursued redistribution of the farmland seized by whites during British rule, but the structural integration of colonialism confounded their efforts. By the end of the 20th century Zimbabwe's white minority, less than 1% of the population, still owned 70% of Zimbabwe's most fertile land. Droughts and volatile commodity markets perennially challenged Zimbabwe's economy through the 1980s and 1990s, which grew on average 4.5% annually during this time frame. Neighboring Botswana grew at 9%, the fastest worldwide. The difference is possibly due to Botswana's governance and liberalized policies.

In the 1990s greater numbers of Zimbabweans began to migrate into South Africa and more recently Botswana and the UK. The South African Migration Project (SAMP) estimate that 1 in 4 Zimbabweans have migrated to South Africa (Tevera & Zinyama, 2002). Historically, Zimbabwe was an immigrant nation, with large volumes of labour migrants from Mozambique, Zambia, and Malawi. Zimbabwe's recent diaspora was mostly unskilled and unmarried young men, but today

greater numbers of women also now migrate as part of a household survival strategy.

In about 1997, Zimbabwe's government and economy spiraled increasingly out of control. In 1998 Mugabe supported Congo's new president in the Second Congo War and drained hundreds of millions of dollars from Zimbabwe's coffers. Zimbabwe printed money to finance the war and other debts, and Zimbabwe's currency entered hyperinflation. By late 2008, just prior to dollarization, inflation stood at over 79 billion percent.

In 1999 Mugabe, an authoritarian ruler, attempted to amend the constitution to extend his term, but failed. Furious at defeat, Mugabe enacted "fast track" land reform and forcibly seize farmland from whites, whom he suspected of supporting his political opposition. Mugabe did not redistribute farmland but instead granted the vast majority of the land to himself, his cabinet, and parliamentarians. The government officials had little interest or expertise in farming, however, and allowed the lands to fall into mismanagement. After decades of British colonialism, the native population of Zimbabwe was unprepared to reclaim the nation's agricultural sectors. The industries that support agriculture, including finance and manufacturing, also began to decline and collapse. Inflation coupled with economic mismanagement thrust Zimbabwe into economic and political meltdown that lasted until 2009.

Violence and economic implosion in Zimbabwe initiated a second wave of migration at the turn of the century. The second wave are largely political migrants, skilled professionals, and more likely to have held a job in Zimbabwe; these are people with the means to flee. Also during this time greater number of people, often women, became informal cross-border traders who purchase goods abroad and resell them in Zimbabwe for a profit. Migrants of the second wave might be termed "survival migrants." Refugees are a type of survival migrant, but this class includes anyone for whom migration is a necessary act of survival.

Zimbabwe today remains a fallen state with some hopeful signs. Following dollarization in 2009, the economy resumed slow growth. Unemployment, however, remains the world's largest at 95%, and the nation suffers an 80% poverty rate. Life expectancy fell to among the lowest worldwide at 37 for men and 34 for women in 2006 but have since rebounded to 58 years on average and in line with life expectancy in South Africa (World Health Organization, 2015).

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Migrants since 2009 remain similar to those of the second wave, with about 44% female and large numbers of skilled migrants. Zimbabwe's short history of migration is already apparent, as the majority of migrants now follow a family member. More migrants today are younger, about 30% between 15 and 24, unmarried, unemployed, and uneducated. Recent migrants continue to remit but only 27% remit monthly compared to 62% monthly remitters from the second wave. Migrants are also more likely to use informal channels for remittances than previous waves. Circular migration is reduced by still predominant. Fewer migrants today visit regularly, but 80% visit once a year.

Zimbabwean HTAs are still emerging and basing some of their strategy on Mexican hometown associations (Gonouya, 2012). The Zimbabwean diaspora is similar to Colombia's. It is diverse and relatively richer than those who stay behind–but much poorer than the Colombians. Zimbabwe's diaspora might also be more distant from their homes than Colombia's and more dispersed. For these reasons a national level strategy organized using the internet might ultimately be important for Zimbabwe's diaspora.

Zimbabwe is a south-south diaspora whereas most collective remittances and strategies exist in south-north diasporas. Nations with both a southern and northern component to their diaspora often target only the northern portion with migration and development strategies and incentives. Southern diasporas are poorer, the data is sparser and more politicized, and the research is more difficult. A southern diaspora may require specialized state-engagement methods from the diaspora, the state, and third parties that seek to assist the Zimbabwean state or diaspora in migration & development efforts. In a state like Zimbabwe where the experiences and effects of migration are pervasive and yet the state lacking the ability to engage migrants, domestic civil society may come to be an important partner to migrant organizations seeking to help out with development.

### 4.2.4   India

India's diaspora dominates the globe in sheer size, antiquity, and economic might. The diaspora is centuries old, but only in the last few decades has the nation invested in its diaspora and drafted policy to protect and leverage migrants for developmental goals. India's emigration policy is shifting in sync with that of other major emigration nations. The Indian state historically ignored

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or disparaged emigrants but in the 1990s rapidly assumed the cooperative transnational attitude now typical of emigrant nations. India may indicate the future of relationships between nations and diasporas as the entire world becomes more transnational.

India's diaspora stem from a nation with a population of over one billion people. 25 million Indians, or about 2% of India's population, live abroad–which is less than the global average emigrant ratio of about 3% but is still second largest in absolute terms. India's remittance inflows are the largest in the world at about 70 billion and currently make up 3.4% of the nation's GDP (Afram, 2012), which is a similar percentage as Mexico, Morocco, and other emigrant nations. Despite their magnitude remittances are not that significant for India's national economy but are essential for some sending locations and are important component of India's balance of trade (Srivastava & Sasikumar, 2005).

India also hosts large immigrant populations from neighboring Bangladesh, Nepal, and Pakistan. The 2001 census reports that 6 million immigrants reside in India but India also hosts many illegal immigrants. India receives large refugee inflows from Afghanistan, Myanmar, and Tibet,

India's emigration is highly regionalized and most emigrants are from Kerala, Tamil Nadu, Andhra Pradesh, and Punjab. For sending regions emigration remittances contribute to large portions of the regional economy; for example remittances to Kerala are 20% of the gross product of the regional economy (Castles, 2007) and among the highest proportion of any economy in the world. Given India's vast population and the regionalized emigration it is misleading to talk about Indian migration. Most Indian's lives are untouched by emigration but in some locations a majority of households have emigrant members.

Indian emigrant's destinations are among the most various of any diaspora. Destinations fall into three major categories: English-speaking industrialized nations, gulf states, and southeast Asian countries. The U.S. is the major receiving country for India's emigrants, but the Asian continent receives more emigrants than North America. North America and the U.K. receive the greatest share of professional and skilled emigrants whereas continental Europe, Asia, and the Gulf states receive the larger shares of unskilled emigrants. Contemporary routes of human capital via migration have persisted since Indian independence in 1947 but regional distribution of volume has

shifted. Emigration to gulf states remains constant since the oil boom of the 1970s but professional and technical emigrants have shifted their preferred destination away from the U.K. to North America and Australia.

India's diaspora is one of the oldest and through the centuries has been driven by mercantilism, colonialism, and globalism. British parliament in 1833 set the stage for modern Indian migration with the abolition of slavery in the empire. British colonial entrepreneurs needed to fill labour vacated by slavery and turned to recruiting indentured Indian labour. In 1835 France and Denmark followed the British example and abolished slavery in colonies. By 1863 and 1869 Netherlands and Portugal, the other major of the colonial powers, abolished slavery. Through the 19th century Indians emigrated to colonies around the globe to fill labour needs.

The period of the British Raj defined modern Indian emigration. The British empire and other colonial nations used Indians to supply labour in colonies around the world. Indentured servitude dominated earlier colonial periods when most emigrants were recruited to work on plantations in the West Indies, Fiji, and Mauritius. During the Raj indentured servitude was replaced by the kangani system, wherein an immigrant foreman recruited and supervised immigrant labourers on the plantations. The foreman typically recruited from people in his home village and encouraged formation of migrant networks between Indian villages and plantations in the British colonies (Guilmoto, 1993). During this time most emigrants came from Tamil and traveled to present day Sri Lanka, Malaysia, Singapore, and Myanmar. Tamil was the largest contributor to Indian emigration during the British Raj due to its proximity to colonies in the Pacific.

Colonial independence movements took advantage of mid 20th century postwar chaos to garner support for anti-colonial resistance movements. Britain's empire was filled with unrest and also vulnerable to growing Chinese and Japanese presence. Britain decolonized; beginning notably in 1947 with India. A cascade of decolonizations followed through the 1960s as colonies around the world obtained independence from European powers. Newly independent domestic populations drove out Indian immigrant labourers who posed unwanted competition. India refused to accept most returnees leading them into a secondary emigration to Australia, Europe, and North America (Khadria, 2009). The kangani system facilitated networking, organization, and eventually union-

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ization of Tamil workers, and their trade unions often protected their status in newly independent colonies allowing some Tamils to remain in their host nations (Guilmoto, 1993).

Decolonization completely transformed global labour demands. India's south-south low skilled circulation to British colonies reoriented south-north to the U.K., U.S., and Canada. Since independence India's diaspora dichotomized, with unskilled emigrants locating to the Gulf and West and Southeast Asia while skilled emigrants left for Australia, North America, and the U.K. (Vezzoli & Lacroix, 2010). The contemporary diaspora is no longer dominated by colonialism, but the effects of colonialism still linger.

Indian emigration since independence consists of waves divided among regions. The first wave consisted of Punjabis emigrants to U.K., after the India and Pakistan partition left millions of Punjabis displaced. The Punjabis were joined by smaller flows from Gujarat and secondary emigrants expelled from newly independent ex-colonies. Britain in 1962 implemented restrictive immigration policy that discouraged temporary migration, accelerated family reunification, and spurred the formation of immigrant communities in the U.K. By the mid 1960s most Indian immigrants to the U.K. were dependents of earlier immigrants. The European reconstruction boom began in the late 1960s and attracted new immigrants from around the world including a fresh wave of Indian immigrants. In the early 1970s an oil boom opened persistent routes of mostly unskilled migration between Kerala and southern India and the gulf states. Industrialized nations in the 1980s introduced restrictive immigration law. In response Indian emigrants grew more skilled and more specialized, especially in IT and software. At this time also more emigrants headed for the United States and Canada and eventually diversified also to Australia, Germany, Japan, and Malaysia. By the the 1990s Indian immigrants dominated IT and other specialty technical professions. In the 1990s the US surpassed the UK as the preferred destination for Indian emigrants and Indians are the top beneficiaries of H1B visas. High-skilled emigration reached a peak during the internet boom of the early eighties and late nineties. From the early 2000s onwards, a large highly-skilled migration wave of engineers, students and doctors arrived in Europe and North America, diversifying further the profile of the Indian Diaspora.

India's contemporary emigration policy reflects it's roots in colonial migration. Most unskilled

emigrants must pass background checks and provide proof of employment and housing and India requires most foreign employers to uphold standards of worker compensation and treatment. Emigration policy is as much a means of protecting emigrants as it is protecting India's image abroad. After independence India used passports as a foreign policy tool, but in 1966 amended the constitution with the right to travel. India's attitude until the 1990s was that emigrants were deserters undeserving of return. By the 1990s remittances had grown to a small but important part of India's national economy and invaluable for local economies in sending regions.

India's diaspora engagement strategies reflect contemporary national needs. India desperately needed foreign currency during its 1990s balance of payments crisis, and offered emigrants special savings vehicles to encourage remittances in foreign currency.

India's diaspora supports thousands of organizations. 13% of Indian migrants to the U.S. belong to a hometown association (Orozco & Garcia-Zanello, 2009), but interviews suggest Indian emigrants are disinterested in India's state policies for diaspora engagement (Tejada, Hercog, Kuptsch, & Bolay, 2013). This is in contrast to Mexico's U.S. diaspora that has similar HTA participation but greater cooperation between HTAs and the Mexican state. Nonetheless India's state engagement is relatively new and remains active and vigorous

Human, not economic, capital might be the primary contribution of India's diaspora to their home nation. Compared to most other major diasporas, collective remittances do not seem to be a concern of Indian emigrants or their organizations. Indian emigrants are also much less willing to invest in their home nation than their Chinese peers (Tejada et al., 2013), who are probably the most comparable diaspora. More important than money are the business networks and technical expertise Indian emigrants return to their home nations. Rather than return of monetary remittances, Indian emigrants believe return of human and social capital is more important for development of their home nation (CODEV-EPFL, IDSK, JNU, & ILO, 2013).

The focus on human over other forms of capital for development may be a function of the Indian diaspora's history and geographical contexts. The Indian diaspora is geographically distant from their homeland. As with the Ecuadorian diaspora, the vast distance may leave Indians uncomfortable with remitting monetary resources for development. At the same time, the Indian diaspora

experienced a history of rejection, and return of human capital may fulfill some emotional desire in collective memory. India is also not an underdeveloped nation but some regions are under served, and Indian professions who have built skills, wealth, and networks in the West may believe that have something to give and gain in India.

## 4.3   Conclusion: Generalizing models and theory of collective remittances

Mexico is an exemplar for migration scholarship and diaspora engagement strategy, but represents only a slice of the characteristics relevant to collective remittances. Mexican communities favor using collective remittances for public goods, and the migrants and state maintain a well funded and effective working relationship. The vast majority of the Mexican diaspora is in the US or Canada, two nearby and well developed nations. Mexican migrants to the US usually fill low skill labour and their immigrant status often leaves them suspended at lower socioeconomic levels. Mexican migrant organizations emerged in these contexts. Mexican migrants needed a place to belong and socially advance; migrant clubs and collective remittances provided this outlet. In time politicians realized the clubs were political resources, and a relationship emerges between migrants and state.

A few elements stand out as important for research and widespread use of collective remittances. 1) How communities and migrants use collective remittances, 2) the rights and resources that a diaspora obtains from their home state, 3) the social attitudes a diaspora face at home and abroad, 4) the geo-political contexts of a diaspora, and 5) the diaspora's partners in development.

First, collective remittances take many forms and are difficult to strictly define. Collective remittances support not only public goods but also entrepreneurial projects. Diaspora bonds are another form of migrant investment that are critical for the financial support and development of some countries, and is another valuable migration and development strategy. Collective remittances are not always money, and can include equipment and durable goods to stock community clinics or other free public services.

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Second, each diaspora have a different home state. The relationship of a diaspora with its home state and government is essential for collective remittances, and the relationship means different things for different migrants. States command great resources, but not all migrants welcome state involvement. Some diasporas fled their home state, and some communities find that state resources are not worth state involvement. Some states lack any capacity to partner with migrants. Home state capacity is correlated with the factors that cause initial migration, including weak governance and violence. It's more likely that home states are both unable to partner and unable to govern, rather than only one or the other. Functioning states provide rights and services to migrants that are part of a larger relationship including collective remittances. State resources come with requirements, but overall they are a benefit to those diasporas that enjoy a functional working relationship.

Third, social attitudes shape migration and collective remittances policy and perception of that policy. As nations recognize the contribution migrants make to national development and financial solvency they take a warmer view of migrants and provide greater services and rights. Migrants distrust homes that have disparaged them in the past. In the host nations, migrant organizations can emerge in part as an escape from discrimination and limited socioeconomic opportunities in the host nations. Poor treatment from host states can also result in migrants and home states distrusting host state assistance.

Fourth, geo-political contexts largely determine the structure and patterns of migration. The Mexican diaspora is embedded in a historical and geopolitical context that allowed for the emergence of circular and seasonal labour migration and strong transnational links between migrants and their homes. Mexican migration patterns are made possible by the geographical proximity of Mexico and the US, the US need for labour through the first three-quarters of the 20th century, and the economic differences between Mexico and the US. Other diasporas are similarly shaped by their historical and geographical realities.

Fifth, diasporas have different partners available to them, those partners have varying capacity to cooperate with migrants for development, and those relationships between migrants and partners have different types and degrees of institutionalization. Typical partners include home state,

host state, and NGOs. Institutionalization provides stable organizational platforms that facilitate collective remittances and their management. With low institutionalization and formality migrants must self-organize and identity development needs and how they can contribute. With higher levels of institutionalization migrants and their partners have an established relationship and programme that streamlines solicitation and contribution of collective remittances and provides organizational bodies and agents to manage collective remittances. Most diasporas will depend upon a formalized relationship with a home state to identify needs and help manage the projects.

These five factors together characterize the opportunities that migrants have available to organize, partner, and contribute to collective remittances. Migrant's expectations of collective remittances differ, but regardless of the form all emigrants have a desire to remain involved with their home. Analysis of Mexico suggests migrants want to develop their home to reduce the need for migration, perhaps to protect their own wages. Indian emigrants return social and human capital to help build Indian industry and business. Moroccan emigrants donate to support schools or clinics and use funds to help start businesses back home. Sometime emigrants want to fund something for their own enjoyment, and in El Salvador emigrants often build sports facilities even as the communities are in need of water, electricity, or road infrastructure.

Table 4.6 summarizes the values of the countries across the general characteristics relevant to collective remittances. The Mexican diaspora, for example, most often contributes to public goods and entrepreneurial projects. The next chapter will further distill these tables to a set of attributes and values that characterize collective remittances within a diaspora.

Migration stages are an important factor for migration, community socioeconomic structure, and collective remittances in Mexico, but are absent from the international comparison. Application of the statistical model of collective remittances to Latin and Central America demonstrated that the theory and model of migration stages in Mexico doesn't naïvely apply to another country. Different contexts of migration yield different migration behaviors and patterns, and the models of migration stages based upon Mexican data are poorly suited to Latin and Central America. A model of migration stages helped explain differences among communities in Mexico, but that model doesn't apply to the populations of communities in other countries. The international comparison did not

need to consider intranational effects, and so migration stages become part of a black box of each nation's particular history of migration.

Migrants are the originators of collective remittances, while states and other stakeholders bring additional resources and requirements to the process. Changing attitudes towards state-diaspora relationships have lifted collective remittances to the forefront of migration and development. Shifting state perception of emigrants will quickly influence state engagement with the diaspora, but history is also important. State's that include migrants in plans and planning bridge the gap between what migrants are willing to do and how migrants fit into national development. States require sufficient resources, but also transparency and the trust of migrants. If collective remittances are truly an efficacious developmental method, then external international pressures may also help some states to establish emigrant engagement.

# Figures

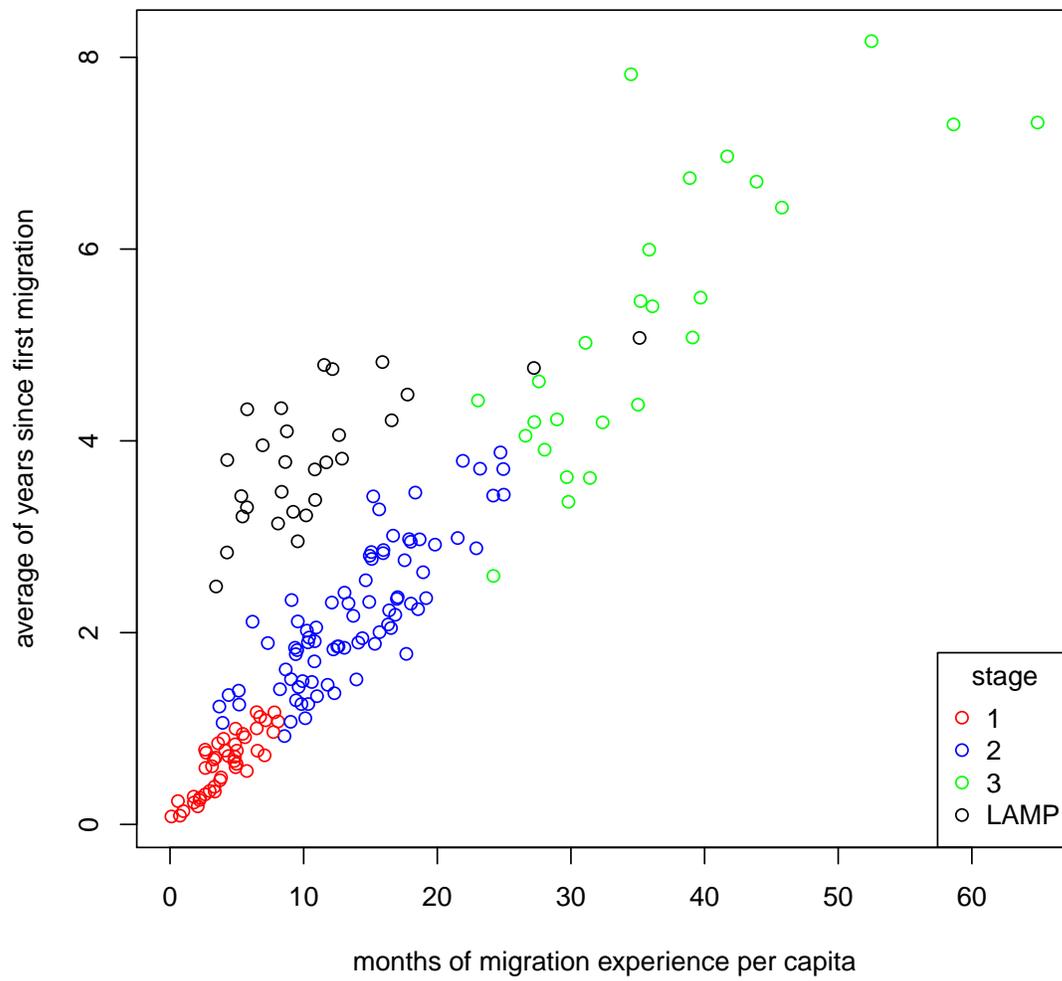Figure 4.1: LAMP data with stage classifications of MMP data

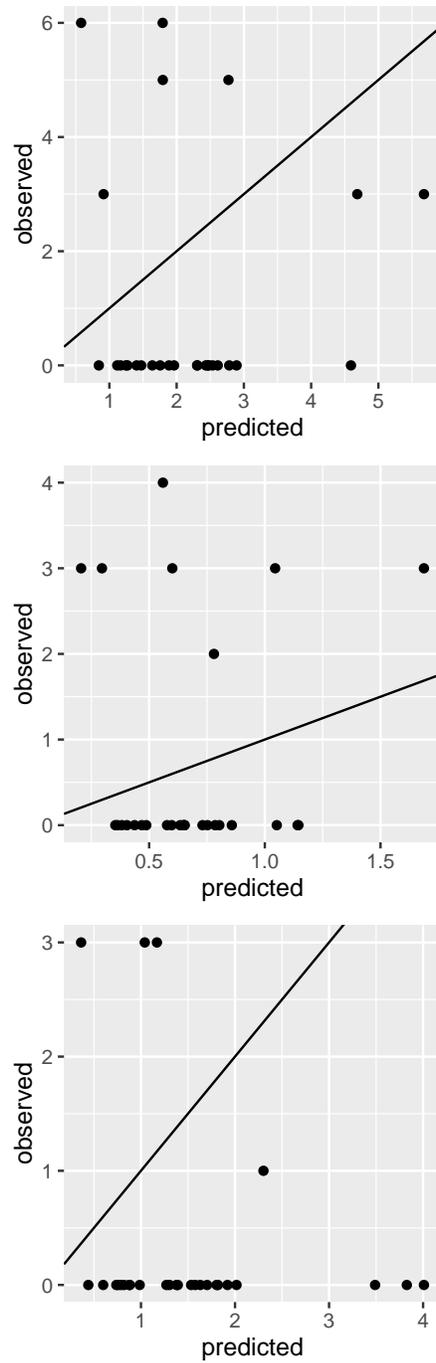Figure 4.2: Calibration plot of model with LAMP data

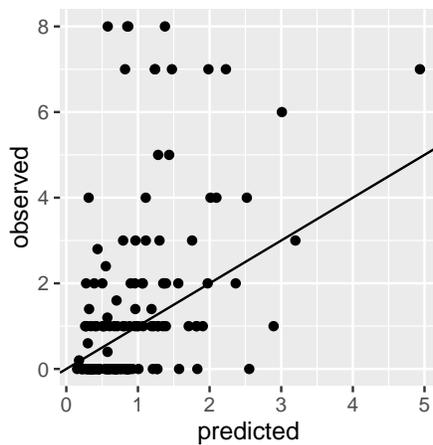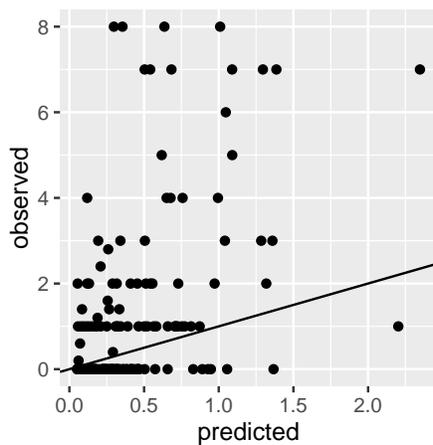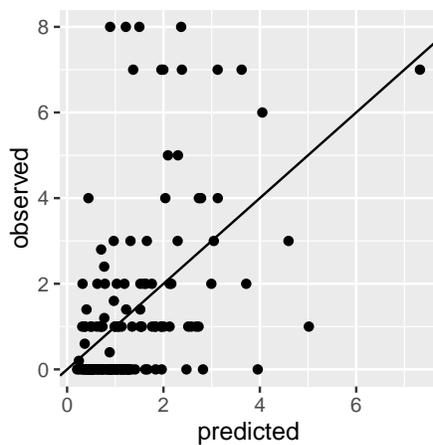Figure 4.3: Calibration plot of model with MMP data

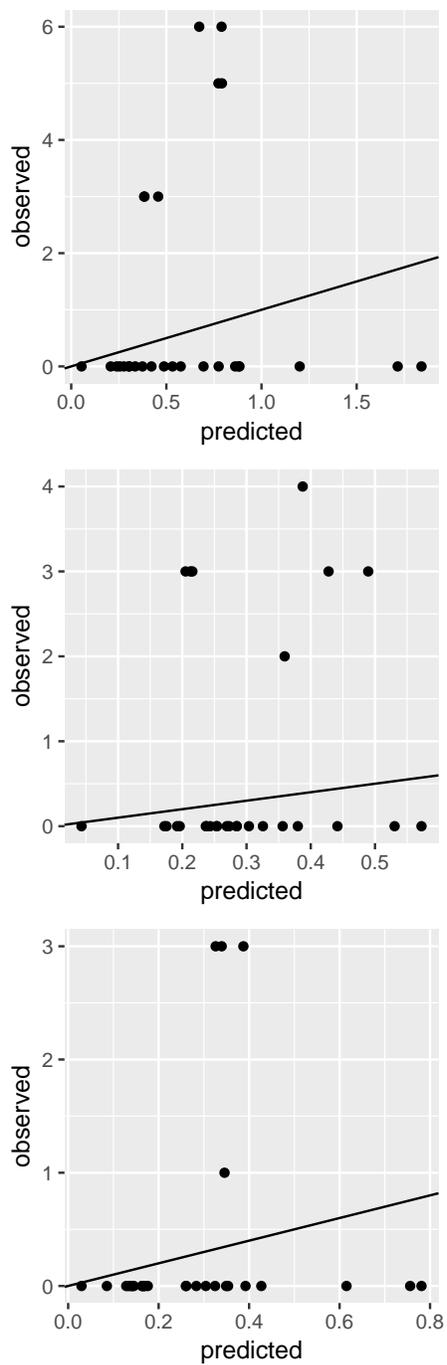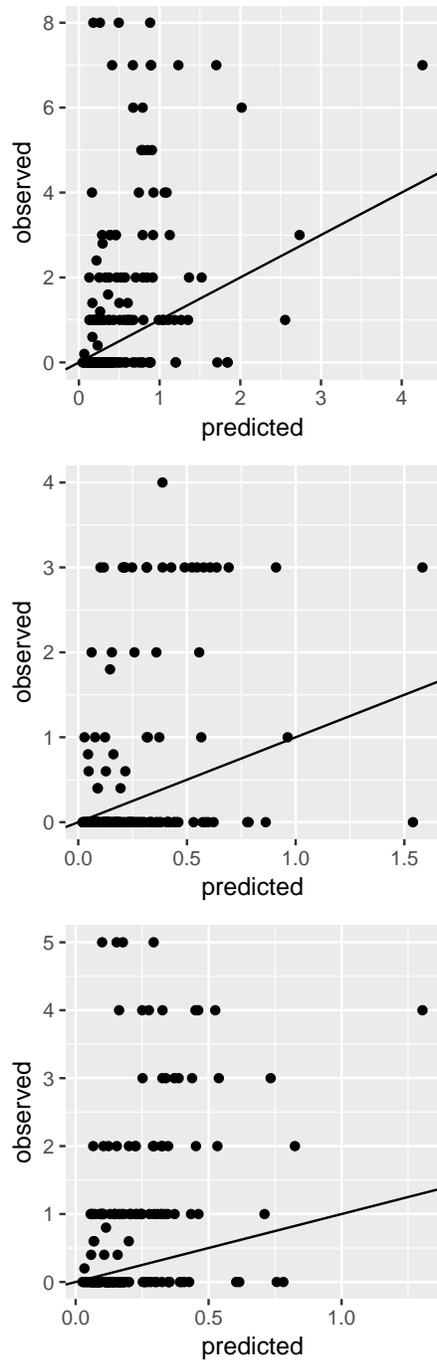Figure 4.4: Calibration plot of refit model with LAMP data

Figure 4.5: Calibration plot of refit model with MMP data

# Tables

Table 4.1: statistics of some Latin and Central American emigrant nations

|  | Colombia | Ecuador | El Salvadore | Dominican Republic | Guatemala |
|---|---|---|---|---|---|
| population (1000s) | 48228.7 | 16144.36 | 6126.58 | 10528.39 | 16342.9 |
| GDP per capita | $6056 | $6205 | $4219 | $6469 | $3903 |
| gini index | 53.5 | 45.4 | 48.1 | 47.1 | 48.7 |
| US immigrants | 2 million | 500000 | 1.7 million | 1.5 million | 1.5 million |
| non-US immigrants | 2 million | 500000 |  |  |  |
| HDI | 0.548 | 0.570 | 0.488 | 0.546 | 0.443 |
| median income | $6544 | $6858 | $4828 | $6302 | $4516 |
| primary US destinations | NJ, south FL | NY | CA, TX | NY, NJ, FL | CA, TX |

Table 4.2: Statistics of some global emigrant nations

|  | India | Morocco | Turkey | Zimbabwe |
|---|---|---|---|---|
| population (1000s) | 1311050.5 | 34377.51 | 78665.83 | 15602.75 |
| GDP per capita | $1598 | $2878 | $9126 | $924 |
| gini index | 35.1 | 40.7 | 40.2 | 50.1 |
| US immigrants | 3.2 million | 113000 | 250000 | 45000-100000 |
| total immigrants | 24 million | 4.6 million | 3.8 million | 3 million |
| HDI | 0.435 | 0.433 | 0.645 | 0.369 |
| median income | $3168 | $6634 | $8955 | |
| primary destinations | UK, US | France, Israel, Spain | Germany, France | SA, UK |

Table 4.3: Descriptive statistics of independent variables in LAMP data

|  | Colombia | Dominican Republic | Ecuador | Guatemala |
|---|---|---|---|---|
| population | 1101214 | 681142 | 360500 | 14829 |
| household head hourly wages MXN | 31.05 | 37.36 | 32.67 | 21.97 |
| proportion remittances invested | 0.002 | 0.002 | 0.02 | 0.01 |
| migrant's hourly wages USD | 14.92 | 16.98 | 14.06 | 10.12 |
| projects financed by migrants | 0 | 1.86 | 1.5 | 3 |
| n | 14 | 7 | 3 | 4 |

Table 4.4: Models of collective remittances fit to MMP data

|  | total | productive | non-productive |
|---|---|---|---|
| (intercept) | 0.05 | -1.16 | -0.33 |
| population | -0.11 | -0.25 | -0.04 |
| household head hourly wages MXN | -0.03 | 0.28 | -0.18 |
| proportion remittances invested | 0.22 | 0.31 | 0.17 |
| migrant's hourly wages USD | 0.36 | 0.24 | 0.39 |
| stage 2 | 0.35 | 0.42 | 0.32 |
| stage 3 | 0.36 | 0.40 | 0.34 |

Table 4.5: Models of collective remittances fit to LAMP and MMP data

|  | total | productive | non-productive |
|---|---|---|---|
| (intercept) | -0.99 | -1.89 | -1.86 |
| population | -0.31 | -0.43 | -0.14 |
| household head hourly wages MXN | -0.12 | 0.32 | -0.19 |
| proportion remittances invested | 0.26 | 0.34 | 0.19 |
| migrant's hourly wages USD | 0.34 | 0.22 | 0.38 |
| stage 2 | 0.29 | 0.36 | 0.29 |
| stage 3 | 0.36 | 0.45 | 0.33 |

Table 4.6: characteristics of collective remittances

| | India | Mexico | Morocco | Turkey | Zimbabwe |
|---|---|---|---|---|---|
| contributions | networks, skills | public goods, entrepreneurship | supplies/goods, public goods, entrepreneurship | networks, entrepreneurship | |
| state resources | diaspora bonds, cultural services | remittance matching | in-kind matching, cultural services, political services | entrepreneurial incentives | |
| social status | high-skill, middle-class | low-skilled, low-socioeconomic | low-skill, low-socioeconomic | mixed-skill | |
| geopolitical contexts | regionalized emigration, global immigration | broad emigration, overwhelmingly US immigrants | regionalized emigration, immigration across Europe | broad emigration, immigration to Germany and France | broad emigration, mostly South African immigrants |
| partners | None | home state | home state, host state | | |
| NGOs | home state | | | | |

# Chapter 5

# Conclusion

Collective remittances have increased in magnitude worldwide (Vargas-Lundius, Lanly, Villarreal, & Osorio, 2008). Since the 1980s collective remittances have risen dramatically, and the HTAs that support collective remittances have equally increased in frequency. Collective remittances are particularly expansive in Mexico, but since the 1990s more diasporas worldwide are cooperatively engaging their home communities and nations to help provide for developmental needs.

Some nations attempt to replicate the Mexican model. Both El Salvador and Guatemala have used top-down institutionalization to leverage existing collective remittances and in both cases migrants are often unwelcoming of state involvement (Popkin, 2003). Mexico's HTAs and migrant friendly policies are creative responses to circumstance and not exactly replicable via policy (Iskander, 2010). Like the squiggly lines that characterize organically demarcated national borders also indicate stability and antiquity, the transnational space where Mexico's state and diaspora meet is messy and political but organically developed. Mexico's diaspora negotiated with the state the terms of it's engagement and the migrants share substantial control in the cooperatively managed developmental projects.

Collective remittances and migrant-state relationships may be unique to their contexts but are not entirely idiosyncratic and there exist several structural attributes pertinent to collective remittances that characterize all transnational developmental relationships. Geography and historical

relationships among migrants and their home and host state are relevant to collective remittances in all places. Geography includes how few or many areas send emigrants, the distance between migrant's homes and their destinations, and the number of destinations. History is more complex and includes civil wars or gang violence in the home state, how the home and host state perceive migrants, and migrant's political rights and activism.

The hypotheses abstracted away from Mexico's context with a test of migrant's motivations. Motivations ideally are consistent between contexts, but structural opportunities bring different motivations to the fore and influence how motivations become action. The hypothesis testing supports that migrant goals drive collective remittances, rather than community requirements. The hypotheses tested structural elements that migrants actually influence over time, for example the wages back home and their wages abroad. Many other structural elements exist that grossly determine migrants access to opportunities necessary to establish and support collective remittances, and that migrants are unaware of or unable to influence.

Table 5.1 describes abstract characteristics that might determine the opportunities available to migrants for collective remittances, and a rough coding rubric to classify nations on these characteristics. Some characteristics are implicated in the analysis of Mexican collective remittances, but they are not directly represented in the model, or they are part of the dependent variable. Figures 5.1 and 5.2 display radar charts that visually characterize the relevant structural attributes for emigrant nations of Latin America and around the globe, based on the rubric in table 5.1

Migrant participation is the most typical feature of collective remittances. Migrants initiate most transnational engagements (Portes, 2001, 2003) but states may attempt to encourage additional participation. With formalized migrant-state relationships most migrants can contribute to collective remittances without needing to be involved in direct communication with home communities or any organizational duties. A smaller number of officials and volunteers representing states, communities, and migrant organizations take over the role of facilitating collective remittances and initiating transnational engagements.

Community participation is important for collective remittances and has many aspects. Migrant and community developmental goals often do not align and communities must remain active to

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ensure collective remittances fund projects that best fulfill community needs. Regardless of goals, communities are an important partner for managing and supporting projects that migrants help fund (Bada, 2011, 2014), and Mexican HTAs often depend upon civic authorities with expertise to help select and manage projects (VanWey et al., 2005).

Cooperation between host states and migrants is uncommon. Migrants and their home governments often perceive host state assistance as a veiled return strategy (Béjar, 2011; Orozco & Lapointe, 2004). A few nations across European support host state co-development partnerships, including Spain, France, and the Netherlands. All these nations also host diasporas that are spread across multiple nations. A diaspora spread across multiple nations may not self-organize as readily as a diaspora focused in one nation, and an unorganized diaspora may be more receptive to assistance from host states.

Dispersion across many destinations can limit the formation of migrant organizations. Mexico's large and federated organizations emerged from concentrations of Mexican immigrants in a few locations within a single country. Moroccans concentrate in France but are also spread across Italy, Netherlands, and Spain, and their geographical dispersion obstructs formation of large hometown oriented migrant organizations. India, too, is dispersed across many regions of the globe and Indian migrant organizations are more fragmented than others (Lacroix, 2012). In contradistinction, diasporas of Mexico, El Salvador, and Turkey are more concentrated in a single nation and have also established larger migrant organizations that establish more complex and involved relationships with their home state. These relationships are merely observational, but is seems that breadth of geographic and nation dispersion abroad is an important factor in the formation of migration organizations, networks, and relationships with home states.

Regionalization of emigration is also important for the formation of migration networks. Regionalized emigration is when emigrants are geopolitically divided by regions, and it can be an outcome of geography, conflict, economics, or all three. Thus, regionalization is interrelated with the other structural aspects important for collective remittances. Remittance matching began in Mexico as a regional affair, but ascended to the federal level because migration in Mexico is not constrained to a few regions. Moroccan emigrants, in contrast to their Mexican peers, stream primarily from the

country's far northern and southern hinterlands. Morocco has pioneered migrant political rights (de Haas, 2006; Lacroix et al., 2010), and financial institutions to serve migrants (Iskander, 2010), but has never made remittance matching a component of it's strategy for engaging migrants. Moroccan emigrants are not politically impotent, but the northern and southern regions have distinctive geographic, economic, and political characteristics. Regionalized differences may result in differing goals and limit the size and strength of migrant organizations. Nations with federal remittance matching programs seem to be those with the least regionalized emigration–like El Salvador and Mexico–where a single "one size fits all" federal program might be more effective.

Host state hostility towards a diaspora impact collective remittances in two ways. First, the hostility can be an important impetus for migrant organization and nostalgia that underlay collective remittances (The Oaxacalifornian Reporting Team, 2013). Second, past hostility can lead migrants to distrust later host state assistance.

Migrants face hostility also from their home state, and some migrants fled threats of violence from home states. Memories of hostility flavor migrant's relationship with their home state for decades or even centuries. Political refugees rarely return voluntarily, but survival migrants fleeing a failing state or economy may return if a new state or economy can stand up and meet citizen's needs.

Political rights are most important to emigrants of developed nations where citizenship is more valuable; both for the emigrant (citizenship and acceptance at home) and the immigrant (citizenship and acceptance abroad). Political goals often supplement hometown goals of migrant organizations and collective remittances. Political rights are important for migration and development because emigrants who enjoy political rights back home are more likely to invest back home.

Home state policies distinguish contemporary collective remittances from transnationalism of the past. With remittance matching programs, states take an active role in migration and development, and make claims on how migrants should assist with development. States can incentivize collective remittances, and organize collective remittances to better address national developmental needs. States elevate collective remittances to the national level and can involve migrants who might not otherwise participate. Some collective remittances are not monetary, but are goods or even skills,

and likewise states might also match migrant's charity in kind.

With business assistance home states direct and leverage remittances that migrants invest in enterprises back home. Mexico began offering business assistance after observing the success of remittance matching, but other states, like Turkey, have made incentives for migrant enterprise they keystone of their migration and development strategy. Business assistance is ambitious but can be contradictory. Migrant's hometowns and underdeveloped regions of the home country often are not sound business investments. Turkey, however, successfully used localized business incentives to modernize agriculture in underdeveloped regions (Caglar, 2006). Business assistance might supplement or supplant remittance matching grants. Whereas remittance matching focus on public goods and infrastructure, business assistance pursues commercial enterprise that provides jobs and economic viability to a community or region. Business assistance is a tool of migration and development that is usually interrelated to collective remittances but a separate strategy with it's own motivating circumstances and goals (Goldring, 2004).

Diaspora bonds allow a home state or private company to tap into migrant savings to finance development or supply foreign currency to fund balance of payments. Diaspora bonds provide migrants with attractive interest rates and the borrowing state or company with lower-cost and longer-term financing than is otherwise available. Diaspora bonds reflect in migrants a home nation bias. Migrants often invest in diaspora bonds despite having alternative investments available to them with similar returns at lower risk. Home nation bias may be a function of nostalgia, but migrants may also possess better knowledge of their home and believe a diaspora bond provides a better investment return than similar risks. States with large emigrant populations in wealthy destination countries are more likely to benefit from diaspora bonds. Fragile home states lack the bureaucratic structure distribute diaspora bonds, even if they could benefit. Diaspora bonds reflect both a government's need for financing or liquidity, and the government's ability to issue bonds. Diaspora bonds are another tool of migration and development that can accompany remittance matching, and nations like India have used diaspora bonds as a centerpiece of their migration and development strategies.

The goal for applying a rough rubric and characterization of geography and history is to un-

derstand the potential for collective remittances and other forms of migration-driven development. Mexico provides a foundation for analyzing the motivations and structural contexts of collective remittances, and other major emigration nations of the world provide case studies for fleshing out the analysis, but all these nations already have programs to leverage collective remittances and organize or assist migrants with development in their home communities. What makes all the major emigration nations useful for developing a model of collective remittances is precisely the fact that these nations already have experience with collective remittances and other forms of migration and development, but the model should be tested on a new nation.

The next section demonstrates that the research results and insights are helpful for quickly assessing the future potential for institutionalization of migration and development in a nation with relatively less research on the existing migration and development environment. Nicaragua will serve as the case study. Nicaragua is historically similar to El Salvador and Guatemala, but today has remarkably different migration patterns and socioeconomic characteristics. Migration and development in Nicaragua is relatively less scrutinized than in the other Latin and Central American migration nations, perhaps because much of Nicaragua's diaspora resides in Costa Rica and is less easily accessible than a diaspora located in the U.S. or a European nation. Nonetheless some data is available on Nicaragua from the Latin American Migration project.

## 5.1  Example: The potential for collective remittances in Nicaragua

Nicaragua shares a similar history with neighboring Central American nations. Like other Central American nations, Nicaragua went through a period of violence, civil war, and revolution that began in the 1960s, peaked in the late 1970s and continued into the 1980s. Unlike their neighbors, Nicaragua's *Sandinistas* successfully ousted the dictatorial government and installed a socialist government. The new government of the Sandinista National Liberation Front (FSLN) inherited a nation in ruins after a decade of civil war and an earthquake that had leveled the capital city, Managua. The FSLN overhauled the deformed agricultural system and implemented

human development programs that have improved literacy, education, healthcare, and childcare. The conservative Reagan administration attempted to strangle the new left-leaning government and discontinued aid flows that began under Carter's term, mustered and armed Nicaraguan National Guard units loyal to Somozoa, and mined Nicaragua's harbors to block shipping. Nicaragua today remains the second poorest country in the Western hemisphere, behind only Haiti. Despite widespread poverty, Nicaragua doesn't suffer from gang violence that is common in neighboring El Salvador and Honduras.

Nicaraguan emigrants have different motivations for migration and choose different migration destinations and goals from most of their Central American peers. The Nicaraguan revolution generated a refugee diaspora of about 200,000, but almost all refugees returned following the overthrow of the Somozoa regime. The new FSLN government generated an emigration wave composed of landowners and industrialists fleeing the nation ahead of deprivatization reforms, whom the U.S. welcomed as "refugees." Migrants also fled from the violence of the U.S. sponsored contra war in Nicaragua. Distinguishing economic from political motivations of Nicaraguan emigrants is difficult, but analysis of survey data and macro-economic factors suggests most Nicaraguans to the U.S. fled from violence rather than economic reforms (Lundquist & Massey, 2005). Unlike their Central American peers who travel primarily to the U.S., Nicaraguan emigrants divide among Costa Rica, the U.S., Panama, and Spain as favored destinations. The reason is partly geographical, Nicaragua is further south than El Salvador and Guatemala, and borders Costa Rica. Costa Rica offers one of the strongest economies in Central America, shares a language with Nicaragua, and is easier to enter. The reason may also be partly political. The refugees of El Salvador and Guatemala have no intention of returning, whereas Nicaraguans are primarily economic migrants who may plan to return, and prefer a destination that is easier to leave and re-enter.

A comparison and contrast between Nicaragua's diaspora and those of neighboring Central American nations bring into focus the economic, social, and political elements important for collective remittances and institutionalized migration and development. Figure 5.3 displays a radar chart for Nicaragua on the characteristics important for understanding collective remittances. The score for migrant and community engagement, number of destinations, and number of emigrant regions

is supported by data in the Latin American Migration Project. Literature provides no evidence that NGOs or host states partner with Nicaraguan immigrants for development goals, nor that Nicaragua provides emigrants with remittance matching grants, diaspora bonds, business guidance, or political rights. Nicaragua's diaspora is similar to others from Central and Latin America, with geographically broad emigration, a history violence at home, and anti-immigrant hostility in host locations. But whereas their Central American peers largely migrate to the U.S., Nicaraguan emigrants travel in large numbers to both the U.S. and Costa Rica. Nicaragua's history with civil war and violence is similar to that of its Central American neighbors, but the Nicaraguan diaspora in the U.S. is more similar to Colombia's. Nicaragua's refugee population in the U.S. is composed from wealthier classes and is smaller and wealthier than Salvadorian and Guatemalan refugees (Lopez, 2015, n.d.), although poorer on average than Colombians in the U.S. Nicaraguans join HTAs at about the same rate as Mexicans and Central Americans, about 4$ (Orozco & Rouse, 2007), but Nicaraguan HTAs seem to have no relationship with their home state. Colombians also have little or no relationship with their home state, but have used their advantages and resources to establish an overarching transnational organization–Conexion Colombia–that coordinates the diaspora and also incorporates NGOs to focus efforts for migration and development on high priority needs in Colombia. Nicaragua is not a failed state, and has a stability on par with Colombia, but less so than El Salvador. Elsewhere in the world, Turkey, India, and Morocco also have stability indices similar to Nicaragua, but are much wealthier. Nicaragua seems to have the right ingredients for institutionalized migration and development, but for some reason partnerships between emigrants, NGOs, or the Nicaraguan state have not emerged.

The research results of the collective remittance strategies of Mexican migrants may partly explain the failure of Nicaraguans to establish organizations, partnerships, and programs for migration and development. The reason has not to do with attributes of Nicaragua's diaspora or state, but rather with the poverty of Nicaraguan communities. Poverty and income was not a significant predictor of collective remittances to Mexican communities. The research results did show, however, that Mexican migrants prefer to donate for urbanization, recreation, restoration, and beautification projects rather than basic infrastructure. The reason may be that communities in need of basic

infrastructure are not good candidates for eliminating future migration via development. Nicaragua is the second poorest nation in the Western hemisphere, and although the nation's diaspora is capable of providing help, the migrants may not believe their help would do anything to reduce future migration.

Nicaragua remains in a phase of flux and smoldering revolution. One reason fewer refugees flee the nation may be that citizens of Nicaragua still believe they have an opportunity to change their nation. Even the indigenous tribes who have suffered from FSNL counter-insurgency efforts remain recalcitrant. Since the revolution, political power has shifted from the left-wing to the right and back again to the left-wing FSNL party. Unusual alliances emerge as politicians jockey to shore up their support and rewrite laws to favor themselves. Nicaragua appears to be a government in need of the economic and political support that emigrants can provide.

Iskander's "Creative State" suggests that Morocco and Mexico have developed institutionalization of migration and development because of the creative process between the states and their respective migrants. Where Iskander sets out to critique compilations of best practices in migration and development, she also implies that any diaspora and state, with the right motivations, can establish institutionalized migration and development relationships. Iskander maps out how international shifts in migration alongside messy state politicking gave rise to the institutionalization of migration and development that we observe in Mexico and Morocco, but she does not go far enough to question the motivations of migrants in the process.

Analysis of motivations in Mexico suggest that, in Nicaragua, communities likely need access to basic infrastructure before migrants will consider state partnerships to be a worthwhile economic and political investment. The strongest factor associated with migrant funding for any type of project is migrant's wages. Nicaragua's diaspora on average have higher wages than Mexicans, Salvadorians, and Guatemalans. Nicaraguan emigrants possess the resources, ability, and even desire to help out, but perhaps do not think that collective remittances are the best way to accomplish their goals. The strategy motivation states that the goal of (collective) remittances is to reduce the need for future migration (Orozco & Lapointe, 2004; Stark, 1995) and predicts that remittances increase with migrant's wages. In El Salvador, migrants often resist state preferences for using

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collective remittances for infrastructure development. If collective remittances are going to be a viable strategy in Nicaragua, and other impoverished areas of the world, states and policymakers need to find new methods of cooperating with migrants to fund infrastructure that will satisfy migrant's motivations.

Institutionalization of migration and development can also take forms other than collective remittances. Migrants may be want to help out back home, develop their home nation, and reduce future migration, but may not use monetary remittances for this goal. Moroccan emigrants often supply material goods to support development back home, for example computers or medical supplies, and Indian emigrants sometimes provide their skills, networks, and human capital to support business and technological development in India. In other contexts the motivations found among Mexican emigrants may obtain, but how the motivations crystallize into collective action may be different from the methods of Mexican emigrants. To echo Iskander's criticism of "best practices" for collective remittances: Similarities between Nicaragua and its neighbors can advise strategies to institutionalize migration and development of Nicaragua, but the fact that Nicaragua and it's diaspora have not adopted methods that are successful for Mexicans or Colombians should indicate that alternative methods will be necessary to mobilize Nicaraguan emigrants. Given that Nicaragua seems to be a good candidate for institutionalization of migration and development, host states and NGOs may provide an impetus for state-diaspora partnerships in Nicaragua by making the first moves to work with Nicaraguan HTAs.

## 5.2   Wither collective remittances

The remittance-decline hypothesis maintains substantial theoretical sway and states that remittances decline over time. The hypothesis enjoys empirical support but is overly simplistic. Later generations of migrants–that is the children of immigrants–typically do not maintain their parent's degree of support and remittances to their home nation. This does not mean, however, that the diaspora as a whole does not sustain or even increase support. As long as emigration from a nation is ongoing those emigrants will provide support to their homes. The future of remittances doesn't

depend on individuals, families, or even communities, but rather the nation and diaspora as a whole. For as long as people cross international borders, remittances and transnationalism will remain salient for development of sending states. Moreover, states today encourage transnationalism and provide incentives for future transnationalism

Collective remittances too decline overtime. Hometown associations have about a 10 year lifespan (Orozco, 2003), however clubs are prolific and new clubs spring up regularly. Migration and development is interested primarily in HTAs' contributions to development, but the HTAs often fulfill other needs, and for some organizations the collective remittances are a side effect. Indeed, the reason collective remittances are effective is because they are a side effect to other activities in which migrants have a personal stake, and the institutionalization of collective remittances help entrench them as a side effect. Another important side effect is the growth of civic skills and of human and social capital migrants accrue as they participate in social activities and manage collective remittances. Along with economic motivations, collective remittances exist because migrants want to be part of something bigger, leave a lasting legacy, and enjoy and remember their cultural heritage.

Home states are an important proponent and stakeholder for collective remittances, and a stable home state can provide support, longevity, and continuity for collective remittances across migrant generations and the coming and going of migrant HTAs. The contemporary state is extraterritorial and treats emigrants with deliberation. Through emigrants states secure economic and political capital both home and abroad. States depend on emigrant transnationalism, but also provide structure and incentives for migrant transnationalism to expand. Transnationalism today reflects a symmetry between migrants and the state rather than an action-reaction relationship.

Home states help sustain collective remittances with matching grants or in-kind contributions. Mexico's *Tres por Uno* program remains active as of this publication (Secretaría de Desarrollo Social, 2017). The Inter-American Development Bank reports that Mexico obtained a X dollar loan in 2012 to maintain *Tres por Uno*. Remittance matching grants represent an alternative for conventional development funding, not necessarily a new funding source. In that sense, remittance matching remains subject to the drawbacks of conventional development funding, including that is

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it financed through additional debt.

Collective remittances and state engagement grew organically from political and economic necessity in nations with long histories of large emigrant populations. States and emigrants formed partnerships over decades in nations like Mexico, Morocco, and Turkey. States with newer populations of emigrants today attempt, with mixed results, to adopt the programs developed in nations with long histories of emigration. The programs emerged in contexts that are often different from the adopting state. Newer emigrations often are composed of migrants fleeing for survival from less stable states. Differing contexts should not dissuade younger diasporas and their home states from learning from the experiences of older diasporas, but it's important to understand the effects of context, the motivations of migrants, and how the two interact.

Heretofore collective remittances are built on partnerships between migrants and their homes, but the future of collective remittances may involve another stakeholder: the host state. In the past, host state, or co-development, partnerships carried negative implications of host states attempting to return migrants to their places of origin (Orozco & Lapointe, 2004; Béjar, 2011), but host state partnerships offer non-ignorable advantages. Partnerships between host nation and immigrants can help immigrants integrate and develop their homes to reduce the need for future migration, and programs for these goals already exist in Spain, France, and the Netherlands. Host states may also be in a position to fill essential needs for realizing collective remittances and the broader goals for migration and development. For example, migrants are reluctant to fund infrastructure, but infrastructure projects may provide the foundation for follow-on development. Funding infrastructure seems to be a sticking point between migrants and their home states, but host states may provide additional input, resources, or ideas that can resolve the differences and enable cooperation for advancing migration driven development of infrastructure needs.

NGOs are also active in development but rarely coordinate their efforts with emigrants. Similar to host states, NGOs are a 3rd party that can fill needs that neither migrants or home states cannot. NGOs can provide HTAs guidance for project identification that home states are unwilling or unable to supply. NGOs are ideal candidates to provide support to migrants in social development, financial infrastructure, and business development (Orozco, 2003).

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Policymakers in the 1990s didn't believe collective remittances could significantly contribute to development (Goldring, 2004), but by the new century collective remittances had become the new development mantra (Kapur, 2004). Migrants and policymakers often have different expectations for collective remittances, however. As policymakers accept remittances as a potentially significant source of development, they also expect all remittances to be fungible toward this goal. Policymakers expect that remittances come with no strings attached, and that migrants shouldn't require the same rates of return on remittances for development as with other investment vehicles. The policymaker vision for migration and development ignores what remittances mean to migrants, and what migrants expect from their investments and contributions.

The recent migration-development nexus invokes the concept of *bottom up* development (Sinatti & Tinajero, 2011). Bottom up development begins with the local populations, rather than distant decision makers, to select and implement local development. Behind this paradigm is a theory that local populations know better what infrastructure the community most needs, and how best to implement this infrastructure (Hayami, 1998). In this theory, governments can more efficiently funnel money into development by sharing power with local actors. Migrant's motivations and developmental priorities are critical for bottom up development. Migrants may have superior local knowledge but may not share the same goals or interests as their home communities and nations. Migrants preferences are associated with structural characteristics. Migrant's motivations and their situations in both home and host nation shape how they will engage with developmental interests and goals.

If migrant-state partnerships remain a relevant aspect for the future of migration and development, then host states and NGOs will likely need to become a part of the relationship. Host state and migrant partnerships may seem ludicrous, but when transnational theory exclaimed that states no longer regulate the cross border lives of their citizens, the repositioning of the home state as a central entity in migrant's support of development also seemed dubious. Yet contemporary transnationalism is again distinguished by the role of the home state in migrant's cross border lives. If transnational lifestyles become more prevalent, then host states will be unable to ignore the role of immigrant's transnationalism within their own borders.

Migration remains both a challenge and a promise to the nations of the globe. Whatever its outcome migration will almost certainly always exist. Since the last decade of the 20th century migrants have grown increasingly transnational. Not only will migration continue, transnationalism is likely to grow. While some may question the sustainability of collective remittances, hometown associations, and diaspora driven development, this pessimism may be overwrought; diasporas are a promising investment for emigrant nations.

It is likely that in the not too distant future for a significant portion of the earth's inhabitants a transnational life will come as natural as the interstate life is for most of us now. The thought of not living a transnational life will seem as preposterous as the thought of living on the same 20 square mile patch of land for a whole life.

# Figures

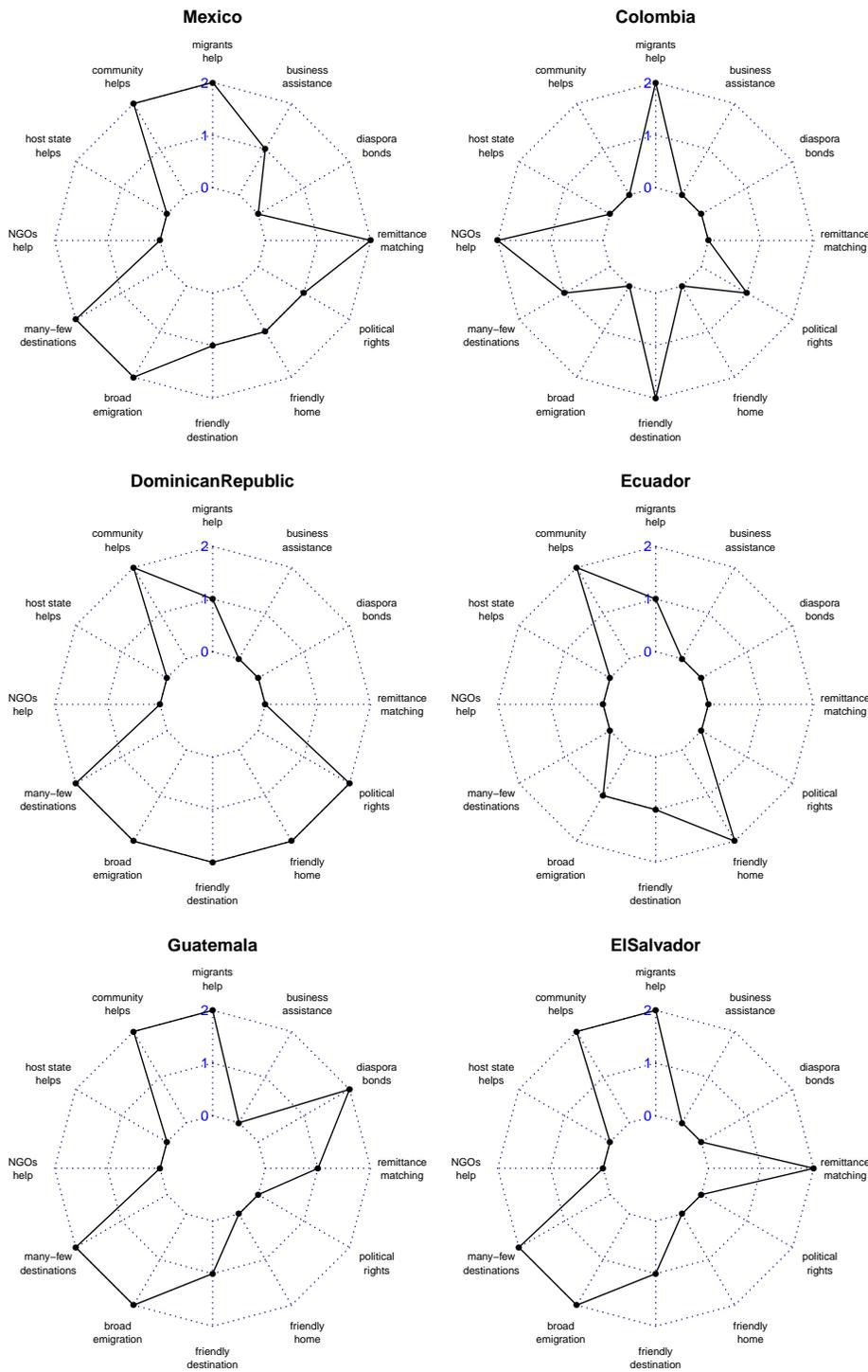Figure 5.1: Structural contexts of collective remittances in some Latin American emigrant nations

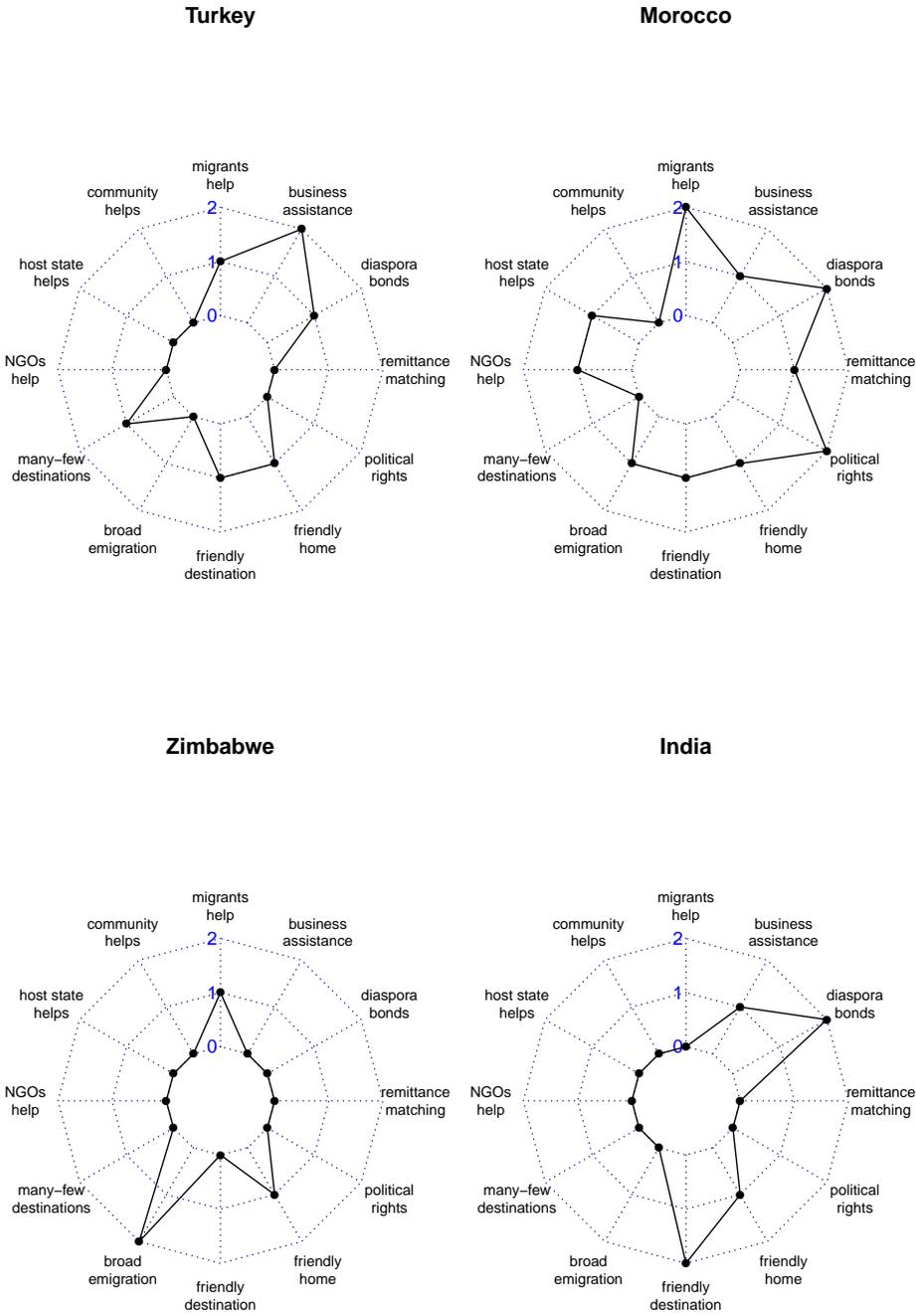Figure 5.2: Structural contexts of collective remittances in some global emigrant nations
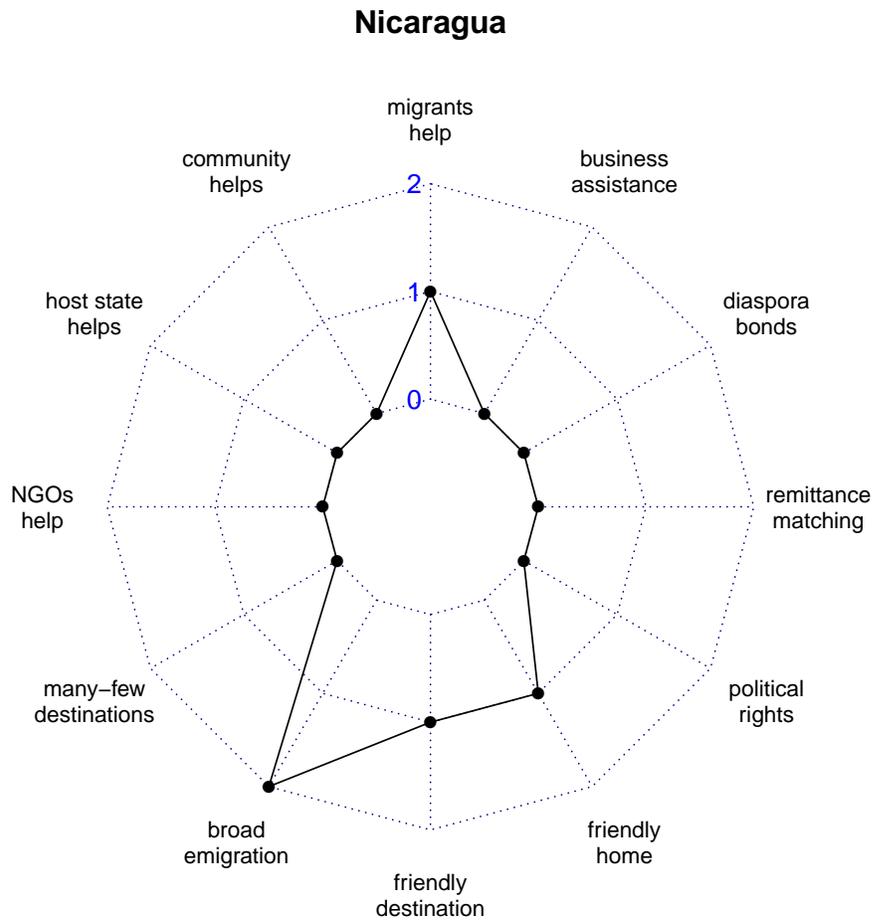
**Turkey**



**Morocco**



**Zimbabwe**



**India**

**Nicaragua**

# Tables

<div align="center">

Table 5.1: Characteristics of diasporas

</div>

| | 0 | 1 | 2 |
|---|---|---|---|
| migrants help | not transnationally engaged | unorganized or ad-hoc transnational financial engagement with community or nation | history of organized transnational development; institutionalization of collective remittances |
| community helps | does not participate in development | community leaders visit migrant organizations | community forms committees or organizations to partner with migrants |
| host state helps | does not participate in immigrant's development of home | officials of host state visit migrant organizations or communities | host state provide programs to assist migrants with home nation development |
| NGOs help | no NGOs help | NGO agents visit migrant organizations | NGOs provide programs or resources to assist migrants with home nation development |
| many-few destinations | less than 75% of diaspora in single nation | less than 90% of diaspora in single nation | greater than 90% of diaspora in single nation |
| emigration regionalized-broad | emigrants from less than 50% of home state administrative areas | emigrants from greater than 50% of home state administrative areas | emigrants from greater than 75% of home state administrative areas |
| destination hostile-friendly | host state policies and populations openly harmful to immigrant group | host state policies and populations discriminatory to immigrant group | immigrant group easily integrates with host state |
| home state hostile-friendly | home state physically or psychologically violent to emigrants | home state considers emigrants traitors | home state accepts emigrants as citizens abroad |
| political rights | home state grants emigrants no political rights | home state responds to emigrant dissatisfaction | home state grants emigrants citizenship rights broad; voting; dual citizenship |
| remittance matching | home state does not match remittances | some administrative areas of home state match remittances | home state federal government matches remittances |
| diaspora bonds | home state does not offer diaspora bonds | home state offers but does not depend on diaspora bonds | home state depends on diaspora bonds for solvency |
| business assistance | home state does not provide business assistance | home state provides business counseling or financing for emigrants | home state provides business grants for emigrants |

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