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The Political Economy of Remittance-led Development in Guanajuato, Mexico

Benjamin Waddell

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The Political Economy of Remittance-led Development in Guanajuato, Mexico

By

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B.A., International Affairs, University of Colorado, 2005
M.A., Latin American Studies, University of New Mexico, 2009

DISSERTATION

Submitted in Partial Fulfillment of the
Requirements for the Degree of

Doctor of Philosophy
Sociology

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Dedication

This project is written in the memory of all the men and women who have left (and will leave) their homelands with the hope of making a better life for themselves and their families. In general, it is my hope that this project sheds a little more light on the legacy that migrants have left in this world. Still, although this project reflects the dreams of many men, it is motivated by the memory of one man, Pedro Ortiz.

Pedro and I occasionally worked together on construction sites near Telluride, Colorado between 2001 and 2005. At the time I was an undergraduate student at the University of Colorado Boulder but every summer I returned to my hometown to earn money for the school year. Pedro and I only worked together on several occasions, and while we were unable to communicate well, I recall finding myself strongly moved by what I was able to make out of his personal story. At the time, all Pedro and I were able to exchange were the basics. Through gestures and broken English, Pedro explained to me that he left his native Mexico for the first time in the 1980s to work in the southwestern U.S. When I asked him where he was from he responded “León, Guanajuato”. I recall partially capturing the first word he pronounced and completely ignoring the second word due to the fact that I was unable to pronounce more than the first syllable! My face must have revealed my confusion because he promptly responded with “You know, like a lion,” which he followed up with a trained gesture in which he brought his hands above his head and let out a loud “RAAAAAA”. With such primitive communication, we would often go hours without uttering a word but through occasional hand motions and laborious conversations, we each got to know a little about one another.

For more than fifteen years Pedro would leave his hometown in Mexico and head north for six months, during which time he worked on construction sites for a local company in and around Telluride. Finally, in the early 2000s, he was able to solicit permanent residency in the U.S., at which point he petitioned to bring his wife and children to live with him. By this time, Pedro and I had lost contact. However, in the fall of 2006, while home on a break from graduate school, I tracked down Pedro's number and gave him a call. By this time I spoke rather fluid Spanish and so I was quite excited to talk with the man I had worked side by side with for so many hours without exchanging much more than an occasional phrase or pantomime. Pedro's wife answered the phone and after we briefly introduced ourselves, she passed me on to her husband. Pedro and I spoke for roughly half an hour, in which time he told me a bit more about himself. As it turned out, Pedro was from a town called Valle de Santiago, which is located in the state of Guanajuato, Mexico. Coincidentally, my girlfriend at the time, who is now my wife, is also from Guanajuato. As a result, we unexpectedly had a great deal to talk about. We discussed different places we had visited in Guanajuato and before we hung up, Pedro invited me to visit him and his family the next time they were back home. Like many immigrants, Pedro had built a house in his hometown, which he went back to visit once or twice a year. Unfortunately, Pedro and I we were never able to meet up in his native Mexico. A week after we talked on the phone, Pedro passed away suddenly from a brain aneurysm. To be sure, there are many men and women like Pedro that have fought for their dreams only to fall tragically short of seeing them reach fruition. A great deal more, however, continue to fight for their dreams day in and day out. The goal of this project is to shed light on the legacy of these men and women.

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It is said that it takes a village to raise a child. The same can certainly be said of a dissertation. With that in mind, a number of acknowledgements are in order. First and foremost, I would like to thank my grandmother, “Dommie” Waddell, for inspiring me to pursue a college education. In many ways this project is a reflection of her support throughout the years. A special thanks also goes out to my parents, Wynne Waddell and Michele Erschen, for teaching me to fight for my goals and learn from my shortcomings. I would also like to thank my wife, Beatriz Garcia Waddell, for her steadfast love and guidance. Over the years I have been fortunate to have the support of many other individuals, and while space does not permit me to introduce each of them individually, they deserve acknowledgment: Dee McKeever (Norwood Public Schools), Michael Hughes (Telluride High School), Joshua M. Hoekstra (Bluegrass Community and Technical College), Alicia Tabler (CU Boulder), F. Chris Garcia (UNM), Alejandra Balestra (UNM), Enrique de la Madrid (UNM), Phillip B. Gonzales (UNM), Nancy López (UNM), Robert A. Ibarra (UNM), Susan Tiano (UNM). All of these individuals have played a fundamental role in my academic development.

Above all else, I extend my gratitude to each of my respective committee members, including: Dr. Richard Wood, Dr. Matías Fontenla, Dr. Robert Fiala and Dr. Manuel García y Griego. Over the last several years their feedback has contributed a great deal to the evolution of this project as well as my personal development as an academic. I am forever indebted to each of these individuals for being exceptional professors and even better mentors.

I would also like to thank all of the respective institutions that have funded me over the years, including: the U.S. Department of State (Gilman Scholarship), the Spanish and Portuguese

Department (UNM), the Latin American and Iberian Institute (UNM), the Sociology Department at UNM, the Southwest Colonial Research Center UNM) and the Sociology Department at Adams State University (ASU). Regarding the latter, I thank all of my colleagues, and my Chair, Dr. Michael Marin in particular, for their unwavering support over the last two years. Lastly, I'm extremely grateful to the Fulbright Program for funding my field research in Mexico in 2011. I hope that my research lives up to the high expectations of the Garcia-Robles commission.

Finally, a special thanks goes out to Dr. Richard Wood, the chair of my dissertation. I first met Rich, as I have come to know him, in the fall of 2008 when I was a graduate student in his qualitative research methods course. At the time I was a frustrated student seriously contemplating whether or not to continue my pursuit of a Ph.D. However, Rich's course rekindled my desire to become a professor. Since then his steadfast guidance and constructive criticism has helped me develop as a researcher and a person. Today I find myself a better human being—and citizen—for having met Rich Wood. This, in my opinion, is the mark of a truly exceptional professor and it is an attribute that I hope to replicate in my own professional life as an instructor.

Benjamin James Waddell

A Camila, por haber reafirmado mi deseo de dejar este mundo un mejor lugar.

To Camila, for reaffirming my desire to leave this world a better place.

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ABSTRACT

In the present study I analyze the relationship between migrant remittances, development and political transformation across 46 *municipios* located in the state of Guanajuato, Mexico. Using Guanajuato as a case study, my research addresses fundamental questions regarding the impact of remittances in Mexico: How, if at all, do migrants influence economic development and political change across the state? How does the impact of direct remittances to individual families compare to the impact of remittances channeled through collective structures? The crux of this study lies at the intersection of these inquiries, and although my analysis is limited in scope, the results outlined in Chapter 3, 4, 5 and 6 point to one overarching theme: Remittances alone do not drive long-term development. Rather, in the long run meaningful remittance-led economic development and democratic change—measured by gains in health care, education, economic growth, and civic participation and transparency—require a deep and authentic partnership between economic actors, members of civic society and local government. As the results outlined in this study reveal, the program 3x1 para migrantes has the potential to underpin this type of relationship.

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List of Common Acronyms

- BID- Inter-American Development Bank (Banco Interamericano de Desarrollo)
- HTA- Hometown Associations (Asociaciones Civiles)
- IPLANEG- Institute for State Planning of Guanajuato (El Instituto de Planeación del Estado de Guanajuato)
- ICE - U.S. Immigration and Customs Enforcement
- NAFTA- North American Free Trade Agreement (Tratado de Libre Comercio de América del Norte)
- NGO- Non-Governmental Organization (Organización No Gubernamental)
- PAN- National Action Party (Partido de Acción Nacional)
- PRD- Party of the Democratic Revolution (Partido de la Revolución Democrática)
- PRI- Institutional Revolutionary Party (Partido Revolucionario Institucional)
- RLD- Remittance-led Development (Desarrollo Impulsado por las Remesas)
- SEDESHU- Ministry of Social and Human Development (Secretaría de Desarrollo Social y Humano)
- SEDESOL- Ministry of Social Development (Secretaría de Desarrollo Social)
- SGP- Bureau of Public Affairs (Secretaría de Gestión Pública)
- 3 X 1- 3x1 for migrants (3 X 1 para migrantes)

Chapter 1: Brief Introduction to Study

One of the things that Mexico had never acknowledged about my father –I insist that you at least entertain this idea- is the possibility that my father and others like him were the great revolutionaries of Mexico. Pocho pioneers. They, not Pancho Villa, not Zapata, were heralds of the modern age in Mexico. They left for the United States and then they came back to Mexico. And they changed it forever. (Richard Rodriguez 2009:210)

As we advance further into the 21st century it is becoming more and more evident that migration is a defining feature of current international affairs. At present just over 3 percent of all individuals around the world resides in a country other than the one in which he or she was born (Migration Policy Institute). This trend is without precedent. At no other time in human history have so many people lived beyond their homeland. As a result, migration currently plays a fundamental role in shaping social, political and economic conditions in countries around the globe.

In large part recent immigration trends in the U.S. as well as other developed countries are a direct result of unequal development trends across rich countries and poor countries. The massive income and wealth disparities currently evident between nations around the world have created a structural situation in which marginalized individuals have come to see immigration as a way of improving their life chances.¹ This situation finds its origins at the dawn of 20th century when rapid industrialization in the Western Hemisphere gave way to an oppressive arrangement in which the owners of production (the bourgeoisie) profited from the cheap labor of poor masses pouring in from the countryside (the proletariat). Still, despite polarized inequalities

¹ It is worth noting that income and wealth differences between countries also help explain emigration levels following seemingly unrelated events such as warfare and natural disasters. For example, when relatively wealthy countries are hit by natural disasters a larger percentage of the country's basic infrastructure survives and as areas of need emerge the government is more capable of responding adequately. The opposite is true in poor countries. This scenario played out in 2010 when strong earthquakes hit Haiti and Chile, respectively. Despite stronger seismic activity, Chile emerged with less damage and quickly moved towards recovery. Haiti, on the other hand, is still recovering from the devastation. As a result, the earthquake in Haiti has led to the exodus of far more refugees than its Chilean counterpart.

within developed nations, the ratio of mean income between rich countries and poor countries at the time was a modest 4 to 1. In contrast, at the onset of the 21st century, while social classes are clearly more diverse within countries than in years past, the income gap between rich nations and poor nations now stands at an astounding 100 to 1 (Milanovic 2011: 11). Given this structural arrangement international migration clearly represents a very powerful form of social mobility for citizens of developing countries (Korzeniewicz 2009: 108; Portes and Hoffman 2003: 70). It is therefore not surprising that around the world unprecedented numbers of rural peasants and marginalized urban workers have come to see emigration to developed countries as a road to progress. This is particularly evident in the case of the United States (U.S.) and Mexico.

At present 13 percent of the U.S. population, or roughly 40 million people, is composed of immigrants. More than half of these individuals were born in Latin America, and almost one-third are native citizens of Mexico. It is perhaps for this reason that every year the U.S. government spends millions of dollars addressing the short-run symptoms of immigration, such as “uncontrollable” borders and undocumented workers, while only tangentially addressing the root causes of emigration, such as global inequalities, political repression and dire poverty. This trend is particularly evident in recent decades.

Historically high migration patterns combined with the rise of a security-minded state in the post-9/11 era has led to unprecedented spending on immigration enforcement in the U.S. According to a recent report by the Migration Policy Institute (MPI):

[T]he US government spends more on its immigration enforcement agencies than on all its other principal criminal federal law enforcement agencies combined. In FY 2012, spending for CBP, ICE, and US-VISIT reached nearly \$18 billion. This amount exceeds by approximately 24 percent total spending for the FBI, Drug Enforcement Administration (DEA), Secret Service, US Marshals Service, and Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), which stood at \$14.4 billion in FY 2012. (2013:9)

This report goes on to point out that the push for greater immigration enforcement began with the passing of the *Immigration Reform and Control Act (IRCA)* in 1986. IRCA provided a pathway towards legalization for millions of undocumented immigrants but also, for the first time in U.S. history, made it against the law to higher “illegal” immigrants and authorized the fortification of the U.S.-Mexico border (Meissner et al. 2012).

Lawmakers could not have known it at the time but the largest wave of immigrants was yet to come. Favorable economic conditions in the U.S. coupled with stark inequalities in Mexico and other developing countries fueled one of the largest waves of immigration in U.S. history.² In the face of rising immigration and recalcitrant constituents U.S. legislators have time and again reaffirmed their blind faith in the recommendations outlined in IRCA by committing more and more taxpayers dollars to immigration enforcement. Far less attention, however, has been lent to a now obscure report titled *Unauthorized Migration: An Economic Development Response*. The report, which was ordered by congress after the passing of IRCA, was published in 1990 by the Commission for the Study of International Migration and Cooperative Economic Development. The commission was assigned two principle goals: “a) to examine conditions in Mexico and other migrant-sending countries in the Western Hemisphere which contribute to unauthorized migration to the United States; and b) to explore “mutually beneficial, reciprocal trade and investment programs to alleviate such conditions” (Congress 1990: E-1). In the official write-up the commission noted that the best long-term solution for migration was meaningful development in migrant-sending nations and specifically, Mexico. The final report came to the following conclusion:

² Note: In the U.S. immigration as a percentage of the total population peaked in 1910 at roughly 14.7 percent. However, in terms of total immigrants admitted the post-1965 era has been witness to the largest wave of immigration in U.S. history (U.S. Census Bureau 2010).

There are no short-term solutions to the problem of undocumented migration. Regardless of our efforts and those of the countries themselves, the United States will continue to be a magnet so long as our wages are many times more attractive than theirs. Moreover, the major paradox of our study is the conclusion that economic development in the short term stimulates migration by raising expectations and enhancing people's ability to migrate. It takes many years—even generations—for sustained growth to achieve the desired results. (1990:4)

Today, more than two decades after the aforementioned report was published, immigration from Mexico is on the decline. In fact, over the course of the last ten years Mexican immigration has hit a net zero for the first time since the 1960s (Pew Center 2012). Caught up amidst the fanfare of partisan politics legislators on both sides of the aisle have quickly credited the U.S. government's draconian policies with the decrease in immigration from Mexico. A more sober account of the issue, however, points to a quite different cause: Mexico is developing.

Since the passing of IRCA nearly three decades ago the quality of life enjoyed by most Mexicans has improved. Over the course of the last thirty years Mexico has experienced a number a fundamental social, economic and political shifts. In recent decades, for example, human development indices have improved throughout the country, revealing the successful expansion of education, healthcare and employment to marginalized populations. As a result, today citizens of Mexico have better access to health care and education and across the country fertility rates have fallen. To be clear, poverty and inequality are hardly a thing of the past in Mexico, but in general, Mexicans are better off today than they were three or four decades ago. In addition, since the late 1980s Mexico has experienced an unprecedented opening of the political sphere. Across the country parties now compete for political posts in relatively transparent elections. Moreover, the decentralization of decision making and resource allocation from the federal government to state and municipal authorities has opened up avenues of political participation to previously excluded groups. As a consequence of these changes fewer

people feel the need to migrate to the U.S. These shifts, coupled with a slow economic recovery in the U.S. following the 2008 recession, have led social scientists to the conclusion that Mexican migration as we have known it may well be over (Massey and Castañeda: 2012). Our understanding of its legacy, however, has just begun.

In recent years researchers have dedicated a great deal of energy to the study of both the catalysts of Mexican migration as well as the impact that Mexican immigrants have on receiving communities in the U.S. Less attention, however, has been lent to the analysis of factors that have the potential to ameliorate the very conditions that drive migration in the first place. With that in mind, the rise and fall of Mexican migration over the last several decades provides a unique opportunity to empirically assess the recommendations made in the aforementioned report, *Unauthorized Migration: An Economic Development Response*. In the present study I address a small part of the commission's original report by focusing on the relationship between migrant remittances, development and political change in migrant-sending communities in central Mexico.

Remittance-Led Development in Context

According to the United Nations Development Program (UNDP) development is the process through which individuals gain access to "an enabling environment" that allows them "to enjoy long, healthy, and creative lives." In short, by improving community access to education, healthcare and income, development provides individuals with additional leverage over the factors that condition their lives. As the ensuing quote from *Unauthorized Migration* reveals, migrant remittances share a potential relationship with local development in migrant hometown communities:

It is generally agreed that remittances have the potential as an investment resource, particularly in the migrant-sending communities to which they are sent. Millions of legal

residents in the United States have close ties to areas where undocumented migrants originate and have a strong commitment to assisting their families and communities. If remittances are channeled into productive small business investments and these small businesses succeed in generating jobs and higher incomes, emigration pressures should eventually abate in such areas. (1990:91)

Although pinpointing any one “catalyst” of development is impossible, within migrant sending communities one of the most important factors underpinning local progress is the inflow of migrant remittances from abroad. Remittances reflect the fact that individuals not only see migration as a means through which to directly improve their own lot in life but also as a way of contributing to the betterment of those that they leave behind. This point is corroborated by the fact that migrant remittances currently constitute a significant portion of capital flows for developing countries throughout the southern hemisphere. As Table 1.1 reveals, migrant remittances make up less than 1 percent of world GDP. However, in developing countries cash transfers from abroad contribute a much more significant percentage of capital flows. In Tajikistan, for example, remittances account for an astounding 35 percent of GDP. In middle-income countries, such as India, China and Mexico, remittances form a much smaller percentage of GDP but total remittances flowing in these countries reach well into the billions. In both India and China remittances topped the 50 billion dollar mark in 2010. Similarly, over the last ten years Mexican diaspora communities have sent back an average of roughly 20 billion dollars per year.³ During this same period total remittances around the world have averaged 400 billion dollars per year.

³ It is necessary to keep in mind that remittance levels are affected in large part by differing levels of human capital within diaspora communities. In the case of China and India, for example, overall remittances flows benefit from the fact that migrants often work within sectors that require high levels of human capital.

Table 1.1 Remittance Flows Around The World (In Millions of Dollars)

Rank	Total Remittances (2010e)		Rank	As a percentage of GDP (2009)	
1	India	53,131	1	Tajikistan	35.1%
2	China	51,300	2	Tonga	30.3%
3	Mexico	21,997	3	Samoa	26.5%
4	Philippines	21,373	4	Lesotho	26.2%
5	Bangladesh	10,804	5	Nepal	23.8%
6	Nigeria	10,045	6	Moldova	22.4%
7	Pakistan	9,683	7	Lebanon	21.9%
8	Lebanon	8,409	8	Kyrgyz Republic	21.7%
9	Vietnam	8,000	9	Haiti	21.2%
10	Egypt, Arab Rep.	7,725	10	Honduras	17.6%
11	Indonesia	7,250	11	El Salvador	16.5%
12	Morocco	6,452	12	Jamaica	15.8%
13	Ukraine	5,595	13	Jordan	14.3%
14	Russian Federation	5,477	14	Guyana	13.7%
15	Serbia	4,896	15	Serbia	12.6%
	World	440,077		World	0.7%

Source: Remittances data, Development Prospects Group, World Bank, 2011.

Migrant remittances are clearly an important source of income for many developing countries; still, how remittances affect migrant-sending regions on the ground is not entirely clear. For many years researchers argued that cash transfers reinforced a vicious cycle of dependency in which migrants and their families wasted away precious savings on superfluous consumption within their hometowns and nearby urban centers (Reichert 1981; Stuart and Kearney 1981; Wiest 1979). More recently researchers have uncovered evidence that demonstrates that under the right conditions remittances have the ability to stimulate employment, local investments and higher per capita income (Adelman, Taylor and Vogel 1988; Adelman and Taylor 1992; Durand, Parrado and Massey 1996). This research signals the potential for migrants to foster communal growth in hometown communities via remittance-led-development (RLD). Still, the practice of RLD and its subsequent effects remain largely understudied (Goldring 2002; Cohen 2005).

A basic question emerges from this discussion: What role do migrants play in conditioning the quality of life of those that they have left behind? Moreover, how do migrant remittances affect measures of human development in regions experiencing high levels of emigration? My aim in the present study is to clarify a small part of this puzzle by addressing the relationship between migrant remittances and development in migrant-sending regions located in central Mexico. Specifically, I evaluate the potential for remittances to stimulate development and political change through an in-depth study of the state of Guanajuato, Mexico. In my study I analyze the role migrant remittances in promoting community development across Guanajuato's 46 *municipios* during the period 2001-2011.⁴ Over the next several pages I briefly outline of the individual chapters that make up this study.

Outline of Study

In this project I address the relationship between migration and human development across the state of Guanajuato. In particular, I compare the development outcomes of household remittances (i.e., raw cash transfers between migrants and their families) with those of investments made through the state-sponsored program *3x1 para migrantes*, which pools remittances with state funds in an effort to increase the development effects of migrant remittances. In my analysis, as a means of wedding general trends with specific cases, I employ both qualitative and quantitative methods.

I begin my study in Chapter 2 with a brief review of extant research concerning RLD in Mexico. I then outline the methodological approach used in the data analysis presented in the subsequent three chapters. In Chapter 3 I introduce the reader to three Mexican villages. Each

⁴*Municipio* is the rough equivalent of “county” in English. Still, throughout this manuscript I use “municipio” in place of the English translation “county” or “municipality.” I do this consciously in order to preserve the jurisdictional connotation this particular term carries through the Spanish-speaking world.

case study provides an ethnographic glimpse of the relationship between remittances and development in practice in the state of Guanajuato. It is my belief that these vignettes leave the reader with a more tangible understanding of the causal mechanisms that underpin RLD. For this reason I ask that the reader keep these cases in mind as he or she begins reading through the statistical output reviewed in latter chapters. In Chapter 4 I empirically evaluate the relationship between local political factors and RLD projects. As this analysis reveals, at least in the case of Guanajuato, there is a great deal of overlap between remittances, development and local politics. This is particularly true in so much as the program 3x1 para migrantes is concerned. Chapter 5 places specific focus on the relationship between remittances and human development. Regression results indicate that household remittances alone repress municipal development levels. This analysis also demonstrates, however, that under the right conditions investments made through the program 3x1 para migrantes stimulate human development, thus improving the quality of life enjoyed by migrant-sending communities. These findings highlight the importance of state-sponsored investments in underpinning effective development projects. In turn, Chapter 6 provides a tentative evaluation of the potential relationship between the program 3x1 para migrantes and good governance. The results of this analysis demonstrate that during the period 2002-2011 3x1 investments acted as a catalyst for both improved human development and better governance. Finally, in Chapter 7 I reflect on the study as a whole and offer several tentative conclusions for wider audiences. Specifically, I highlight a point that is brought up time and again throughout this study: Remittances alone do not appear to drive long-term development. Rather, in the long run meaningful remittance-led development—measured by gains in health care, education and economic growth—requires a genuine partnership between economic actors, members of civic society and local government. As the

results outlined in this study reveal, the program 3x1 para migrantes has the potential to underpin this type of relationship. Eventually, additional research will help tease out the nuances of this potential. In the meantime, however, this study makes a strong case for bringing the state back into local development initiatives.

Taken as a whole I believe that this study adds clarity to our understanding of how immigrants impact their homelands. In the most basic sense people risk leaving the comforting confines of the land in which they were born when they are no longer able to adequately control the factors that condition their lives. Related to this, the results outlined in this study have important implications for migrant sending communities in Mexico as well as other parts of the developing world. In particular, this study provides insight into how migrant-sending communities in Mexico can leverage remittances in their favor, thus contributing to a better quality of life for migrants and their families. In general, research concerning the relationship between migration and development has the potential to improve the wellbeing of migrant-sending communities and in turn reduce the pressure upon individuals to migrate. To this end, I hope that this study contributes to a better understanding of how migrants can participate in the meaningful development of their homelands; the degree to which it does will ultimately define its success.

Chapter 2: Exit, Voice and Remittance-led Development in Modern Mexico

Indeed, we need to *analyze* democratic politics in the context of *state-society relations* by evaluating the reach of state institutions and assessing the broader social forces that surround, support, and oppose the terms of democracies' new institutions. (Deborah J. Yashar 1999:79)

Few examples in recent history reveal the dynamics between remittances and development better than the case of modern Mexico, which shares a nearly 2,000 mile land border with the most affluent country in the world. This point is at least partially related to the immense economic disparity evident between the U.S. and Mexico. In 2011, for example, the U.S. reported a GDP per capita of \$48,100, whereas Mexico recorded a GDP per capita of just \$15,100 (The World Factbook 2013). Put simply, for a poor Mexican farmer or a disenfranchised urban worker, few options contain as much potential for upward mobility as crossing into the U.S. Given this, it is not surprising that Mexican migrants, originally bound to sojourner agriculture networks in the Southwestern region of the U.S., are now working in a wide variety of employment sectors and communities across the U.S. In fact, the states with the fastest growing Mexican migrant populations include: Alabama, Arkansas, North Carolina, Georgia and New York (Migration Policy Institute). The sheer depth and magnitude of Mexican migration to the U.S. over the last twenty years has garnered a great deal of scholarly and public attention. As a result, much has been written on the effects of immigration within receiving communities across the U.S.⁵ Less emphasis, however, has been placed on the profound and lasting impacts of emigration on Mexico.

⁵ A thorough review of this literature is beyond the scope of this study but a brief summary is warranted. The basic catalysts of migration can be categorized as “push” factors and “pull” factors. The former include both environmental factors, like famines and droughts, as well as issues conditioned by humans such as political repression, war and economic disparities. In turn, the latter refer to external factors that attract individuals to migrate such as strong labor markets, family members already living abroad, relatively more stable social conditions

In Mexico, few factors affect local communities more than emigration. Jonathan Fox, borrowing from Albert Hirschman's classic analysis (1970), describes the potential influence of migrants on their communities as a distinct process of *exit* and *voice*. Specifically, Fox (2007; 2008) argues that Mexican citizens faced with entrenched poverty and lack of access to political voice frequently opt to migrate or "exit" due to an inability to influence the conditions that structure their lives. However, as Fox points out, in recent decades Mexican migrants living in the U.S. have begun to exercise their "voice" in their communities of origin in the form of remittances and communal development initiatives. Fox's work implies that unsatisfied citizens have four basic options: remain faithful to the status quo (loyalty), stay and take action in an effort to improve social conditions (voice without exit), permanently withdraw (exit without voice) or withdraw with the intention of improving social conditions through migration (exit with voice). Given this, migration appears to have a potential dual effect on Mexican society, such that it first reduces social pressure on politicians and then fosters the potential for social and political change as migrants begin to remit money and ideas back to hometown communities. This relationship is depicted in Table 2.1.

and other forms of opportunity. For a more in-depth review of these issues as they relate to the present study please see: Massey and Durand's work on Mexican migration (2004). In addition, a great deal of research addresses the effects of immigrants on receiving communities. Researchers working within this vein place specific emphasis on questions of immigrant assimilation. A good point of departure for those interested in this line of research is Alejandro Portes and Rubén Rumbaut's book *Legacies* (2001). Other authors of interest include Martin (2006), Ngai (2004), Sánchez (1993), Tuan (2003) and Zolberg (2006).

Table 2.1 Exit, Voice and Loyalty In Mexican Migrant Communities

	Silence	Voice
Stay	<i>Loyalty</i> -Compliance, Clientelism	<i>Voice</i> Mass Protest, Electoral Opposition
Migrate	<i>Exit without voice</i> -Migraion only	<i>Exit with voice</i> -Remittances, Human Capital, Political Capital

Source: Adopted from Jonathan Fox (2007: 297).

Extant research supports the tenants of Fox’s theoretical framework. Early research, for example, found that emigration drained local communities of their most productive citizens and workers, thus having an overall detremintal effect on local development. This body of literature depicted migration as an irrevocable form of exit that trapped communities in a vicious cycle of dependency in which migrants and their families wasted away precious savings on superfluous consumption (Reichert 1981; Stuart and Kearney 1981; Wiest 1979). Subsequent research, however, found that remittances have multiplier effects within local economies, thus directly and indirectly stimulating employment, investment and income (Adelman, Taylor and Vogel 1988; Adelman and Taylor 1992; Durand, Parrado and Massey 1996; Calderón 2008). This line of research illustrates the potential for a migrant “voice” in communal development and refutes notions suggesting that “exit” necessarily mean that migrants irretrievably lose positive influence within their hometown communities. This notion is supported by recent findings that demonstrate that remittances provide migrants and their communities with the ability to leverage local politics (Burgess 2005; Fox and Bada 2008; Goldring 2002; Goodman and Hiskey 2008; Itzigsohn and Villacres 2008; M. P. Smith 2003; R. Smith 2006). Related to this, a growing body

of literature reveals that migrants that return to their hometowns have the potential to improve local governance by transferring democratic practices and norms learned abroad to their hometown communities (Batista and Vicente 2010; Careja and Emmenegger 2012; Chauvet and Mercier 2011; Marcelli and Cornelius, 2005; Pérez-Armendáriz and David Crow 2010; Rother, 2009).

Taken together, the aforementioned research demonstrates that migrants have the potential to underpin local development within migrant-sending regions across Mexico. Given this, it is not surprising that since the late 1990s the Mexican state has sought to rein in its diaspora community via a series of policies ranging from migrant insurance to remittance-led development programs. Anecdotal evidence of this process is found in the high profile visits that Mexican politicians routinely make to regions of the U.S. in which large populations of Mexican migrants reside. For example, on September 18th, 2007, less than one year removed from his presidency, Vicente Fox visited Chicago to meet with leaders of the Mexican-American community. During his stay he emphasized the role of the “migrant ethic” in the development of contemporary Mexico:

The immigrants are the real heroes, they are an example worthy of following. They are a different caste of human beings that is always fighting for the unattainable. This energy is why they are on their feet, they are of great pride to their families in Mexico and the country widely benefits from their work. Mexico is proud of its migrants because they did not sit down and wait for something to happen, they worked responsibly to get ahead, demonstrating that there is no other road to development other than through sacrifice and work. (Fox 2007)

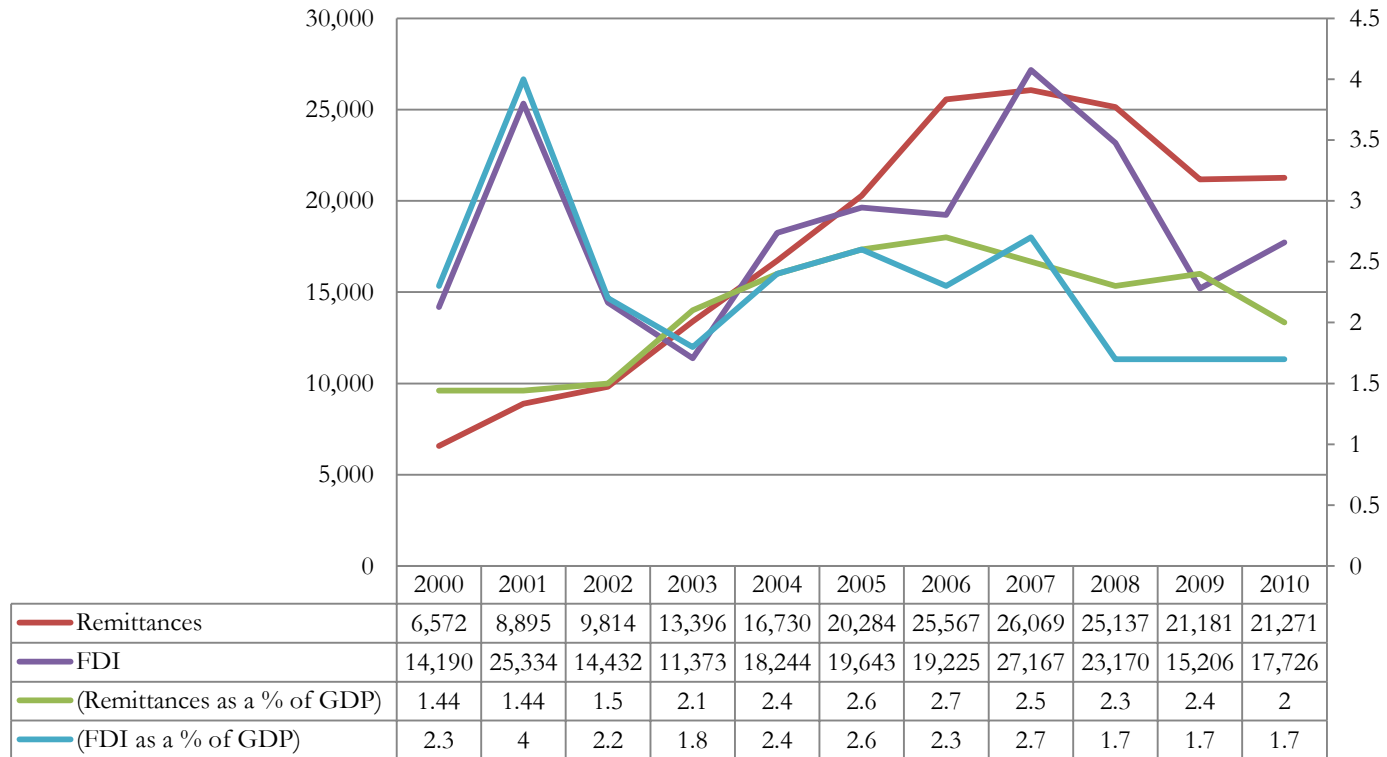
Fox’s high acclaim for the Mexican migrant community is emblematic of the country’s calculated effort to bring migrants back into the national fold as transnational citizens. In particular, Fox’s words resonate with the neoliberal logic of modern Mexico in which individual “sacrifice” represents a key factor along the road to economic development. In subtle terms, he recognizes

the crucial role of migrants in the stability of Mexico's macro-economy. Finally, Fox depicts migrants as hardworking pragmatists, and both in the aforementioned quote and throughout his presidency, he presents *los paisanos* as heroic vanguards "worthy of following." As president, Vicente Fox wove this narrative of migrants as heroic members of modern Mexico and catalysts for development into the political fiber of statesmen and institutions throughout the country. As a result, migrants, who were once depicted as national turncoats, are now portrayed as important actors in the nation's effort to stimulate economic growth and expand the country's transition to democracy into the realm of everyday politics.

Politicians are particularly interested in capturing a share of the billions of dollars in remittances that Mexican migrants send back to their hometowns each year. The effect of remittances on Mexico and the rest of Latin America is not to be underestimated. As Salvadoran sociologist Raul Ramos remarked at a conference for the Latin America School for Social Sciences, "emigration and remittances are the real economic adjustment program of the poor in Latin America" (quoted from Portes 2003; Ramos 2002). Nowhere is this more evident than in Mexico. For decades, migrant remittances from the U.S. have played a decisive role in hometown development and the stability of local economies throughout the country (Durand et al. 1996; Taylor et al. 1996; Guarnizo 2003). Indeed, as Table 2.2 reveals, in seven of the last ten years remittances have outpaced or equaled foreign direct investment (FDI) in Mexico, contributing billions of dollars annually to household income, local and regional consumption patterns and communal development. Moreover, even in moments of economic crisis, which often depress overall remittance flows, cash transfers from the U.S. remain an important source of capital for Mexico. In fact, despite reduced remittance flows since the onset of the economic crisis in 2008, the importance of remittances as a percentage of GDP has remained relatively

stable throughout the first part of the new millennium. For example, although remittance flows in Mexico decreased by nearly \$4 billion dollars from 2008 to 2009, they continued to outpace FDI, making up more than 2 percent of the nation's GDP. To the non-expert this may seem like a relatively low figure but it is important to keep in mind that with a GDP of \$1.7 trillion Mexico has the 12th largest economic output in the world (World Factbook 2013).

Table 2.2 Remittance Flows to Mexico 2000-2010 (in Millions of Dollars)



Source: Author; data from *Informe Anual 1997-2009*. Mexico City: Banco de México.

¹It is worth noting that the 2001 entry for FDI includes the 12,447 billion dollars that correspond to the purchase of Banamex by Citigroup.

Although it is clear that remittances affect local communities, the outcome of their influence often depends a great deal on the type of transfer that migrants partake in. As Table 2.3 illustrates, there are a number of different types of exchanges that occur between migrants and their communities. The most common exchange comes in the form of cash transfers, often sent through private institutions such as Western Union or Xoom. The majority of these transfers are spent on consumption within local communities and regional economies. There are a number of ways to measure the impact of such transfers but the most common include calculating remittances as a percentage of household incomes (micro impact) and measuring remittances as a percentage of exports or foreign direct investment (macro impact). Remittances are also spent, although to a lesser degree, on family and community development. In theory, investments of this nature have the potential to develop the social and economic capital of families and their social networks. The measurable impact of these transfers are made evident by the percentage of remittances spent on housing, durable goods and education. Finally, remittances can also take on the form of community aid. Investments of this type are most commonly made through a Hometown Association (HTA), such as the ones I outline in the case studies presented in Chapter 3. As these cases reveal, communal remittances can leverage social progress within local communities by making relatively large investments in infrastructure and small businesses ventures. The impact of community investments can be estimated at the micro and macro levels by measuring the total amount of contributions made in a given community, *municipio* or state. However, as Table 2.3 indicates, community-wide investments can also potentially affect local and regional political norms, and while these types of impacts more difficult to document, they are potentially just as important as economic transfers. Nonetheless, as this study will demonstrate, measuring this particular impact is far from straightforward.

Table 2.3 A Typology of Remittances

Agent(s)	Type of Exchange	Beneficiary	Descriptive Impact	Measurable Impact	
				<i>Micro</i>	<i>Macro</i>
→ Individual Migrants	Household Remittances →	Relatives, social networks	Family consumption, subsistence	Remittance as a % of household income	Remittance as % of exports and FDI
↕ Individual Migrants, Families and Networks	Family/Community Investment →	Relatives, social networks	Dev. of social and economic capital in family/social networks	Remittance as % of family investment in housing, durable goods and education	Migrants' participation in the housing market and dev. of human capital
↕ HTAs →	Community Aid →	Community, Government, NGOs.	Development projects: infrastructure, business ventures	Contributions to local infrastructure projects, business ventures and effect on local political norms	Aggregate contributions to regional economies and potential impact on democratic norms

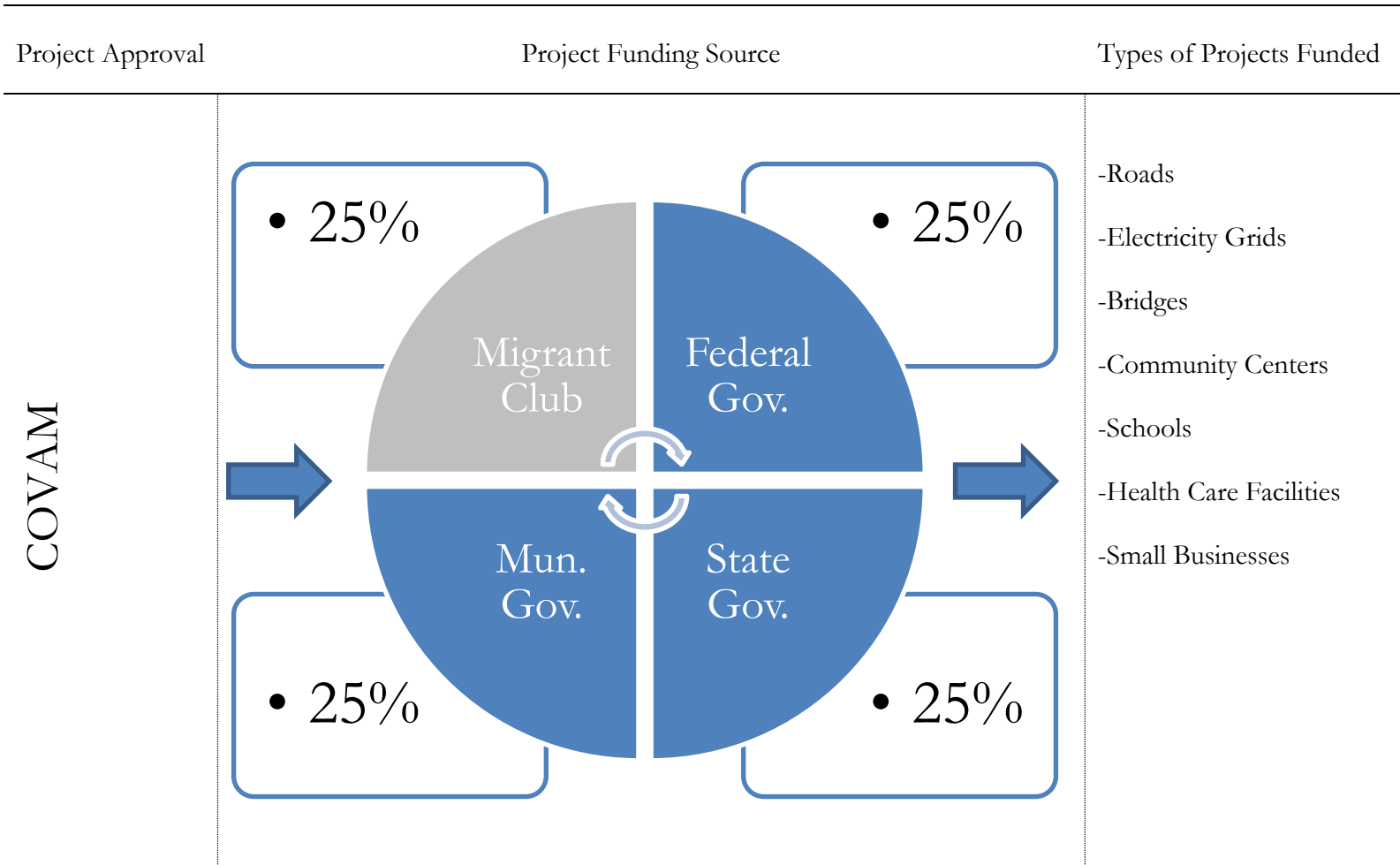
Note: Table is based on Table 1 in Guarnizo (2003). Alterations made by author.

Over the course of the last decade different levels of the Mexican government have supported community-wide investments initiated by HTAs. The state began courting migrants and their remittances as early as the late 1980s, but it was not until 2002, through the program 3x1 para migrantes, that RLD was officially incorporated into the state's economic platform. The 3x1 program clearly illustrates the intersection of migration, development and politics in modern Mexico. The program was spearheaded by then-President Vicente Fox (PAN, 2000-2006) and has expanded significantly under outgoing President Felipe Calderón (PAN, 2006-2012). All signs indicate that the program will continue to receive strong federal government support under current President Enrique Peña Nieto (PRI, 2012-2018). According to the Ministry of Social Development (SEDESOL), which administers the program throughout Mexico, the 3x1 program is designed to:

...aid the initiatives of Mexicans that live in the exterior and to provide them with the opportunity to channel resources to Mexico in the form of projects with social impact that directly benefit migrant hometowns. The program is funded by contributions from migrant clubs or federations operating in the exterior, the federal government via SEDESOL, and state and municipal governments. For each peso that the migrants contribute, the federal, state and municipal branches of government contribute 3 pesos and for that reason, the program is called 3x1. (SEDESOL 2011)

The 3x1 program was designed by state officials to channel remittances towards community development projects, including: bridges, roads, electricity grids, drainage systems, community centers and occasionally, businesses (See Figure 2.1). State and municipal representatives promote the program at the local level and consulate officials promote it among diaspora communities abroad. The 3x1 program is structured such that each respective branch of government matches migrant contributions towards community development projects. For their part, migrants contribute to projects by remitting money communally through HTAs located in the U.S. In turn, the government matches migrant contributions with funds allotted by the

federal government for local development initiatives. Specifically, the federal government diverts funds from SEDESOL to approved 3x1 projects across the country. Still, the federal government plays a very minimal role in the actual approval and implementation of 3x1 projects. The state and municipal governments, on the other hand, match migrant contributions with funds from their respective budgets and both entities play a hands-on role in designing projects alongside migrants and their communities. The 3x1 process is outlined in Figure 2.1.



Source: Author.

Figure 2.1 3x1 Para Migrantes Investment Structure

As the case studies in the ensuing chapter will reveal, in many instances migrants have been aiding their hometowns for years, often through the auspices of HTAs. Mexican HTAs have a deep history of participating in local development projects. HTAs emerged for the first time in the 1920s when Mexican migrants began to settle in large U.S. cities, particularly Los Angeles and Chicago. It was in this setting that the first migrant clubs, known as *mutualistas*, began to appear. Most mutualistas shared a common goal in their desire to preserve cultural traditions and defend their rights as workers and residents of the U.S. During the 20th century mutualistas were the most active Mexican community organizations and, most important for this discussion, they laid the foundation for Mexican HTAs (Gutiérrez 1999).

HTAs began to take root across the southwestern U.S. in the 1960s. A typical HTA consisted of anywhere from 5 to 500 Mexican migrants, generally from the same community in Mexico, who were interested in pooling a percentage of their remittances in the form of communal aid for their hometowns. Initially, HTAs funded infrastructure projects, including the construction of roads, community centers, churches, sidewalks and drainage systems. In time, however, some HTAs have turned towards profitable investments, including the construction of small businesses and in some cases, maquilas and small factories. It was not until the late 1980s and early 1990s that municipal and state government began to show interest in working with HTAs on local development projects. It was at this juncture that states with large diaspora populations, such as Zacatecas, Jalisco, Michoacán and Guanajuato, began to work with HTAs in an effort to improve living conditions in hometown communities. In some cases, local governments even began to match migrant contributions towards public works projects, creating a 1x1 relationship (municipal support) and occasionally 2x1 relationship (municipal and state support) with migrants. These initial arrangements set the foundation for federal participation in

migrant projects. Finally, as explained above, in 2002 the federal government, led by ex-president Vicente Fox, institutionalized government participation in HTA projects under the program 3x1 para migrantes.

Today, a typical 3x1 project begins when a group of migrants takes a trip home and reaches out to local officials about the potential of working together on a development project in his or her hometown. The first step authorities take is to register the migrants as a HTA with the Mexican consulate. Subsequently, the HTA establishes a connection with municipal authorities in order to propose a particular project. At this point, local representatives or delegates take on a crucial role. Delegates serve as a liaison between communities and municipal governments. These representatives are elected or appointed every three years ensuing municipal elections.⁶ Delegates frequently relay information between communities and the municipal government. Concerning the 3x1 program, delegates play a particularly crucial role due to the fact that HTA leaders reside in the exterior and therefore are often not well versed in the burdensome bureaucratic requirements of programs like 3x1.

Once a project is proposed the municipal government submits it for state approval. All project applications include a technical evaluation, which outlines the project's viability and includes copies of any necessary permits and budget estimates. If a project is deemed viable and is in accordance with the rules of operation stipulated by the 3x1 program, the file is submitted for final evaluation to the Committee of Validation and Attention to Migrants (COVAM). Each state has its own COVAM, which consists of twelve representatives: three migrants, three municipal officials, three state officials and three federal officials. Each year, the COVAM votes

⁶In Guanajuato delegates are appointed by the municipal government. For more information concerning the role of delegates in the 3x1 program see Aparicio and Meseguer (2011: 6,7). For actual copies of individual state laws of municipal governance see <http://www.e-local.gob.mx/>.

on which projects to approve for funding. If a project is approved, funds are allocated for the following fiscal year and all parties involved are given a green light to move forward with the project. If, on the other hand, a project does not receive a majority vote, it is returned to the *municipio*, and in most cases, the municipal government re-submits the project the following year (Aparicio and Meseguer 2011:7). It is important to note that a majority vote is necessary for project approval and thus government representatives share a comparative advantage over migrants in determining which projects will ultimately be funded. This of course presents the possibility for government officials to act in coalitions and vote for those projects that most behoove them or their respective parties. This scenario is particularly easy to imagine in those cases in which committee members come from the same party due to the fact that lower-level officials can be subjected to pressure from their party superiors. At the very least this arrangement is worrisome. Still, additional research is necessary to determine the degree to which this plays out in reality.

At face value the 3x1 program is clearly reflective of the nation's effort to court migrants as transnational citizens and vanguards of local development. However, the program is also a clear outgrowth of Mexico's aim to create focused social programs geared at improving the lot of Mexico's most marginalized communities. Related to this, an important element of the 3x1 program is the fact that it allows migrants and their communities to directly partake in the planning and implementation of development projects across the country. In this sense, as I explain below, the program is representative of the government's effort to decentralize resource allocation to the state and municipal level and in this manner directly involve local communities in the redistribution and investment of public resources.

The relative freedom that state and municipal governments have in approving, funding and implementing 3x1 projects is a direct result of Mexico's effort over the last two decades to decentralize economic and political decision making to local governments. This process began in the late 1980s when ex-President Carlos Salinas de Gortari (PRI, 1988-1994) created *el Programa Nacional de Solidaridad* (PRONASOL), which aimed to channel funding for public works projects to the country's most marginalized communities. The program targeted several basic areas, including: healthcare, education, social services, public infrastructure and small businesses. In this sense, PRONASOL represented an effort to combat poverty through direct intervention and increased local participation in development initiatives. Funding for PRONASOL projects came from *Ramo 26*, which was implemented in 1983 as a means of consolidating government funding for programs directed towards combating poverty and promoting social development. Still, throughout its existence PRONASOL remained highly centralized within the executive branch and suffered from issues of transparency and accountability. Moreover, the program lacked a systematic approach to identify potential recipients, and as a result, program disbursements were highly discretionary. In fact, it is now evident that the program did not necessarily benefit the country's most marginalized communities but rather operated at the whim of politicians and their cronies (Weldon and Molinar 1994).

Early in his presidency Ernesto Zedillo (PRI, 1994-2000), having taken note of PRONASOL's shortcomings, replaced the program with *Ramo 33* and *el Programa de Educación, Salud y Alimentación* (Progresá). *Ramo 33* absorbed the majority of the funds previously channeled through *Ramo 26*, and for the first time in Mexican history, created a decentralized funding source for local governments. Progresá was later renamed *Oportunidades* by President Vicente Fox but it remained very similar to its predecessor from a policy standpoint. Together,

Oportunidades and Ramo 33 continue to promote fiscal decentralization and fund social welfare programs aimed at combating poverty across Mexico. In turn, Ramo 26 now operates as a flexible fund through which the federal government directs limited resources towards Mexico's most marginalized *municipios*.

The use of Ramo 33 funds is limited to the areas outlined in Table 2.4. As the reader will note, Ramo 33 provides local governments with the necessary funding to play an instrumental role in all of the major aspects of local development, including healthcare, education and public security. Most relevant to the present study, the use of Ramo 33 funds for public works projects (see gray area in Table 2.4) plays a fundamental role in allowing local governments to support programs like 3x1 para migrantes. The use of Ramo 33 funds for public infrastructure projects is outlined in Article 33 of the Law of Fiscal Coordination:

Federal contributions that are transferred to States and *municipios* through the *Fondo de Aportaciones para la Infraestructura Social (FAIS)*, are to be used exclusively to finance public works projects, basic social initiatives and investments that directly benefit sectors of the population that are in conditions of social marginalization and extreme poverty according to the following schema:

- a) *Fondo de Aportaciones para la Infraestructura Social Municipal*: potable water, sewage, drainage and latrines, municipal urbanization, electricity grids for rural areas and poor urban neighborhoods, basic healthcare infrastructure, basic education infrastructure, residential development, rural roads and rural business initiatives, and
- b) *Fondo de Infraestructura Social Estatal*: public works projects and initiatives with regional or inter-municipal impact.

Table 2.4 List Of Funds Housed Under Ramo 33

Fund	Funding Type	Program	Delegation
Fund for Contributions to Basic Education (FAEB)	Basic Education	National Agreement for the Modernization of Basic Education	Secretary of Public Education (SEP)
Fund for Contributions to Healthcare (FASSA)	Healthcare Services for the General Population	National Agreement for the Decentralization of Healthcare Services	Secretary of Public Health (SALUD)
Fund for Contributions to Social Infrastructure (FAIS)	Basic Social Infrastructure	Ramo 26 and Ramo 33 (previously PRONASOL)	Ministry of Social Development (SEDESOL)
Fund for Contributions for the Support of <i>municipios</i> and the Federal District (FAFM)	Financial Obligations and Municipal Development	Municipal Development Funds	Secretary of Treasury and Public Credit (SHCP)
Multiple Contribution Fund (FAM)	School Lunches and Social Assistance	School Lunches	Secretary of Public Health (SALUD)
	Construction, equipment and reconstruction of basic and superior education infrastructure.	Federal Program for the Construction of Schools (CAPCE)	Secretary of Public Education (SEP)
Fund for Contributions to Education Technology and Adults (FAETA)	Education Technology and Adult Education	CONALEP and INEA	Secretary of Public Education (SEP)
Fund for Contributions for Public Security of States and the Federal District (FASP)	Public Security	Agreement to Coordinate Public Security	Secretary of Public Security (SSP)
Fund for Contributions for the Support of Federal Entities (FAFEF)	Physical Infrastructure and Financial Wellbeing	Ramo 23	Secretary of Treasury and Public Credit (SHCP)

Source: Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL). *El Ramo 33 en el desarrollo social en México: evaluación de ocho fondos de política pública*, México, D.F. CONEVAL, 2010.

The increased decentralization of federal resources in recent decades has allowed local governments to expand the number of social programs that they support. 3x1 para migrantes is one example of this shift. As Table 2.5 reveals, total expenditure for Ramo 33 has more than tripled since 2000 and spending within FAIS has more than quadrupled. Historically, the federal government would allocate resources to states through social agreements or *convenios sociales*, which tended to be highly discretionary in nature and favored political jockeying over social development. In contrast, Ramo 33 funds are distributed by the federal government to state and municipal governments in accordance with a predictable formula. This system emphasizes transparency and predictability and assures that state and municipal governments receive funds from the federal government based on population size and socio-economic indicators of marginalization and poverty (Menocal 2008:10). Ramo 33 has had a particularly large impact at the municipal level due to the fact that it has facilitated the fiscal independence of local governments, which in turn has provided *municipios* with the freedom to contribute to programs such as 3x1 para migrantes.⁷

The 3x1 program is both an innovative development strategy aimed at channeling migrant remittances towards Mexico's most marginalized communities and a unique attempt to include migrants and their communities in the nation's effort to consolidate democratic practices beyond the electoral booth. In practice the program provides migrants, their communities and local government the opportunity to plan and implement development projects that directly affect hometown communities. Still, despite the extolling rhetoric of the Mexican state, the

⁷ It is important to keep in mind that while decentralization does in fact bring more resources to the local level, it does not necessarily imply a more equitable distribution of resources within localities. As Table 2.4 illustrates, federal funds are most often "tagged" for certain types of projects. Local demand for these funds, however, almost always outpaces supply, and as a consequence, local officials retain a great deal of discretion in determining which projects actually get funded.

actual impact of the 3x1 program—and decentralization more broadly speaking—on modern Mexico is poorly understood. Given this, the program provides a unique opportunity to analyze the impact of migrant remittances on *municipios* within the context of fiscal decentralization and democratic transition in Mexico.

Table 2.5 Ramo 33 Expenditure: 2000-2009 (millions of pesos)

	FAIS	Total Ramo 33
2000	\$13,422.14	\$152,447.94
2001	\$17,301.08	\$190,050.66
2002	\$20,715.58	\$215,055.93
2003	\$22,332.70	\$247,728.00
2004	\$24,499.44	\$269,705.71
2005	\$29,019.91	\$315,653.29
2006	\$32,251.86	\$353,192.35
2007	\$37,646.60	\$421,193.76
2008	\$46,757.89	\$484,315.83
2009	\$54,251.02	\$529,441.15

Source: Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL).

Although a variety of political and economic impacts might imaginably result from remittance flows and 3x1 investments, two overall patterns can be inferred concerning the most likely impacts of remittances on Mexico’s political economy. These general patterns, which are investigated at length in this study, can be summarized in the following manner:

- (1) High inflows of migrant remittances lower the burden placed upon local politicians to provide for the public good, thus reducing social pressure from constituents and facilitating the stability of elections while concurrently allowing politicians to go about business as usual within Mexico’s traditional patron-client system (i.e., economic stability without meaningful political change).
- (2) High inflows of migrant remittances remove pressure from politicians to provide for the public good but also contribute to local economic development (lower inequality, higher education attainment, improved access to health care, increased GDP per capita, strengthened financial sectors, etc.) while at the same time stimulating a more

competitive political environment (i.e., competitive elections and relatively more democratic political practices and norms).

The present study is an attempt to determine the degree to which the aforementioned scenarios play out in practice in Guanajuato, Mexico. As implemented in Guanajuato, the program 3x1 para migrantes represents a unique policy experiment crafted by neoliberal politicians and rooted in the theoretical tenets of participatory governance. The latter point is reflected by the Guanajuato Office for Government Accountability, which claims that:

In the present, one cannot deny that in the case of Mexico there has been an impressive jump towards democracy; however, the country has advanced towards a minimalist sense of democracy. That is to say, there is an electoral system in place, there exists a division of powers and citizens can exercise their right to vote and yet democracy in this sense does not assure rational decision making or that decision makers meet their constituents' demands and even less, does it assure an equal distribution of wealth. (Government Accountability Office of Guanajuato 2011:7)

At the very least, this quote reveals the fact that Guanajuato's state government is aware of Mexico's fragile democracy. However, as the ensuing quote demonstrates, the government is also quite conscious of the need to cultivate different forms of social accountability as a means of consolidating the quality of democracy in both Guanajuato specifically and Mexico more generally:

In these three forms of transparency, state actors as well as those within civil society play crucial roles. The mechanisms of "vertical accountability", such as plebiscites and referendums, require not only the support of the legislative branch but also the participation of a vigorous civil society that is willing to deliver votes. The mechanisms of "horizontal accountability from civil society", for example, the role of ombudsmen, demand social pressure and encourage bureaucratic action. These mechanisms...also depend on the government's disposition to open its accounts to the scrutiny of independent actors and to members of civil society that want to dedicate time to the review and evaluation of these accounts. (Government Accountability Office of Guanajuato 2011:17)

The aforementioned quotes are particularly interesting due to the fact that they are crafted by local government officials who frequently quote the leading scholars researching democratic governance in the region, including: Guillermo O'Donnell (1998) and Anne Marie Goetz and Rob Jenkins (2001). These citations reflect the government's growing awareness of the factors that influence the quality of democracy. Moreover, the aforementioned quotes help situate the 3x1 para migrantes program within the state's general vision for democratic governance in Guanajuato. The program, for example, in conjunction with SEDESOL and the Office for Government Accountability, opens its accounts to public scrutiny by publishing regular reports regarding project investments. (It is worth noting that without these reports the present research would have been impossible.) Moreover, the program directly involves migrants and their fellow citizens in the direction, planning and construction of public works projects, and more recently, private businesses. Given this, the degree to which the program's goals are met in practice serves as a type of measuring stick for the depth of democratic consolidation made in recent years in Guanajuato.

Still, legal norms and institutional arrangements alone, as the Italian philosopher Norberto Bobbio contends, "are not by themselves rules of the game: they are preliminary rules that permit for the development of the game" (Bobbio 2005:26). In this respect, democratic consolidation, or the extension of democratic norms and practices beyond the electoral booth, depends as much on the players that take the field as on the preliminary rules that outline the game. Adopted from Schedler (2001), Table 2.6 suggests that the consolidation of democracy depends on the relationship between three main factors: (1) structural foundations, (2) the behavior of actors within institutions and (3) the attitudes of individuals engaged in the process.⁸

⁸ Here and henceforth when I reference "democratic consolidation" I do so within the limits outlined in Table 2.5.

The table also suggests the kinds of observations appropriate for assessing each of these factors, as well as the assumptions regarding causal dynamics underlying this level of analysis. In the case of modern Mexico, unprecedented migration to the U.S. has had profound effects on each of these factors, impacting the country's economy, society and its institutions.

Table 2.6 Measuring Democratic Consolidation

Level of Measurement	Object of Observation	Causal Assumption
Structural foundations	Structural contexts: economic, social, and institutional.	Contexts (incentives and constraints) shape actors and attitudes.
Behavioral foundations	Observable behavior: factual and counter-factual.	Institutions depend on actors. Past behavior (under stress) is predictive of future behavior and indicative of political attitudes.
Attitudinal foundations	Participant perspectives: strategies, norms, and perceptions.	Political behavior shaped by meaningful commitments of actors, which are reflected in attitudes.

Source: Adopted from Schedler (2001:69).

The 3x1 program clearly sets the structural foundation for a more participatory form of local development and while it is unclear whether or not behavioral and attitudinal changes have followed these advances, the short vignettes outlined in the ensuing chapter provide initial evidence for such a possibility. As the reader will come to see, in each of the three cases—Ojo de Agua (Jerécuaro, Guanajuato), El Timbinal (Yuriría, Guanajuato) and Ojo de Agua (Huanímaro, Guanajuato)—migrants have played a fundamental role in communal development. Taken together, these cases demonstrate that at least in some instances remittances have the potential to act as a catalyst for communal development and open up previously closed off political avenues; and that they do so most successfully when linked to the coordinating capacity and

authority of the State. Still, it is clear that further research is necessary to determine the degree to which these case studies can be generalized to the whole. With that in mind, in the section that follows I outline the methodological approach used in this study.

Research Design

A nascent literature addresses the relationship between migration, development and political change. Concerning migration and development, initially researchers argued that migrant remittances create a cycle of dependency in which the recipients of remittances become reliant on cash transfers from abroad. Moreover, it was argued that the large majority of remittances are spent on everyday living expenses and conspicuous consumption within in urban centers. This finding led researchers to conclude that remittances have little potential to foster long-term development (Reichert 1981; Stuart and Kearney 1981; Wiest 1979). Subsequent research depicts a more nuanced understanding of the relationship between remittances and local development. Adelman, Taylor and Vogel (1988), for example, were among the first document the multiplier effects of remittances in local Mexican economies. Their work revealed the potential for remittances to stimulate employment, investments and income in local and regional economies. Recent research confirms this notion, indicating that migrants have the ability to leverage local development (Adelman and Taylor 1992; Durand, Parrado and Massey 1996) and in some cases stimulate national and regional development (Birdsall et al. 2011). This is particularly evident in Latin America where it has been demonstrated that in recent decades “higher remittances inflows tend to be associated with lower poverty levels and improvements in human capital indicators (education and health) of the recipient countries” and “remittances also appear to contribute to higher growth and investment rates, and lower output volatility” (Perry 2008:xix). Related to this, Acosta and colleagues (2008) find that remittances have a “positive

and significant impact on growth,” thus insulating migrant-sending regions from the troughs of economic downturns and guarding against poverty by improving per-capita income in remittance-receiving communities (2008:128). This line of research illustrates the emerging potential for a migrant “voice” in communal development in areas experiencing high emigration and refutes notions suggesting that “exit” necessarily mean that migrants irretrievably lose positive influence within their hometown communities.

Thus, under the right conditions remittances stimulate economic development in migrant-sending regions. Extant research also demonstrates, however, that migration has the potential to influence local belief systems (Pérez-Armendáriz and David Crow 2010; Levitt 2011; Smith 2006) and political norms (Goldring 2002; Goodman and Hiskey 2008; Itzigsohn and Villacrés 2008; Pfitze 2012). This line of research demonstrates that while migrants physically exit their hometowns, they frequently retain a great deal of transnational links with their friends and families. In addition to sending remittances, migrants communicate with their loved ones by phone and Internet and they regularly return to their hometown communities, bringing with them gifts from abroad as well as new ideas and ways of envisioning the world. In this respect migrants often plant seeds of change within their communities by relaying stories from abroad to their friends and family members. Migrant anecdotes play a fundamental role in promoting future waves of migration within hometown communities but they also help locals who have never left the region envision alternatives ways of living. It is for this reason that migrant-sending communities begin to mirror the communities that migrants settle in abroad. In rural villages across Mexico, for example, it is not uncommon to see paved roads with sidewalks, occasional parks with playgrounds and clothing stores that feature American brands. In these same towns the observant visitor will notice two car garages and homes filled with American

appliances, including flat screen televisions and game consoles for children. Finally, anyone that takes the time to spend a few days in a migrant-sending region will begin to notice that a great deal of small talk concerns the way in which things are done in the *los Estados*.⁹

Given the above, it is not surprising that recent research has begun to note the effect of migration on local and national politics in migrant-sending countries (Burgess 2005; Fitzgerald 2000; Fox and Bada 2008; Goldring 2002; Goodman and Hiskey 2008; Marcelli and Cornelius 2005; Rivera Salgado, 1999; M. P. Smith 2003; R. Smith 2006). This body of work implies that migrants have a certain degree of leverage in matters of local resource allocation, thus suggesting that diaspora communities influence local political outcome and patterns of development within hometown communities.¹⁰ The goal of this study is to develop a better understanding of this process via a case study of Guanajuato, Mexico. To this end, I analyze the impact of household remittances and investments made through the program 3x1 para migrantes on development and political outcomes across Guanajuato's 46 *municipios*.

The 3x1 program provides a unique opportunity to evaluate the role of RLD in shaping development trends within the context of democratic consolidation in Mexico. Still, this task is complicated by the fact that the 3x1 program is more active in some states than others. For that reason, while the program is institutionalized in all 31 states, I focus my study on Guanajuato. This central Mexican state is an excellent site for this study for several reasons. First, Guanajuato has made consistently large investments through the 3x1 program since its inauguration in 2002. Thus, any impact of 3x1 projects would be expected to be especially measurable in Guanajuato. Second, Guanajuato has experienced a wide variation in 3x1 investments across *municipios* over

⁹ A colloquial term frequently used by migrants in Mexico and other parts of Latin America to refer to the United States.

¹⁰ It is important to note that a more in-depth review of relevant literature is provided at outset of Chapters 4, 5 and 6, respectively.

the last ten years. Given this, the state lends itself to quantitative analysis, permitting the empirical comparison of *municipios* that have made significant investments through the program with *municipios* that have made more modest investments. Third, Guanajuato has a deep history of early transition towards democratic competition at the electoral booth. For example, as early as the 1980s parvenu parties began to compete for mayorship posts in *municipios* traditionally governed by the Institutional Revolutionary Party (PRI) and most importantly, occasionally they won. Still, just as significant, there is a good deal of variation in terms of electoral competition at the municipal level in Guanajuato. For example, in the *municipio* of Atarjea PRI did not lose its first election until 2006. In comparison, in the *municipio* of San Francisco del Rincón the National Action Party (PAN) won its first election in 1985 and since then the party has competed in close elections with PRI for this particular *municipio*'s main office. Thus, not only do levels of 3x1 investments differed across *municipios* in Guanajuato, but in addition patterns of political change have varied widely. Finally, Guanajuato has historically received high levels of household remittances. This is important for two reasons. First, while household remittances do not necessarily share a one-to-one relationship with 3x1 investment, participation in the 3x1 program is more prevalent in Mexican states that receive consistently high inflows of household remittances, such as Guanajuato, Zacatecas, Jalisco and Michoacán. Second, variation across *municipios* in terms of both 3x1 investments and household remittance levels permits for a potentially informative comparison of the effects of household remittances and 3x1 investments on local development and politics. To be clear, there would be great value in investigating these issues beyond the state of Guanajuato; however, such as a comparison is beyond the scope of this dissertation. Nonetheless, it is important to note that by focusing on Guanajuato this study lays the analytic groundwork for future work on this terrain.

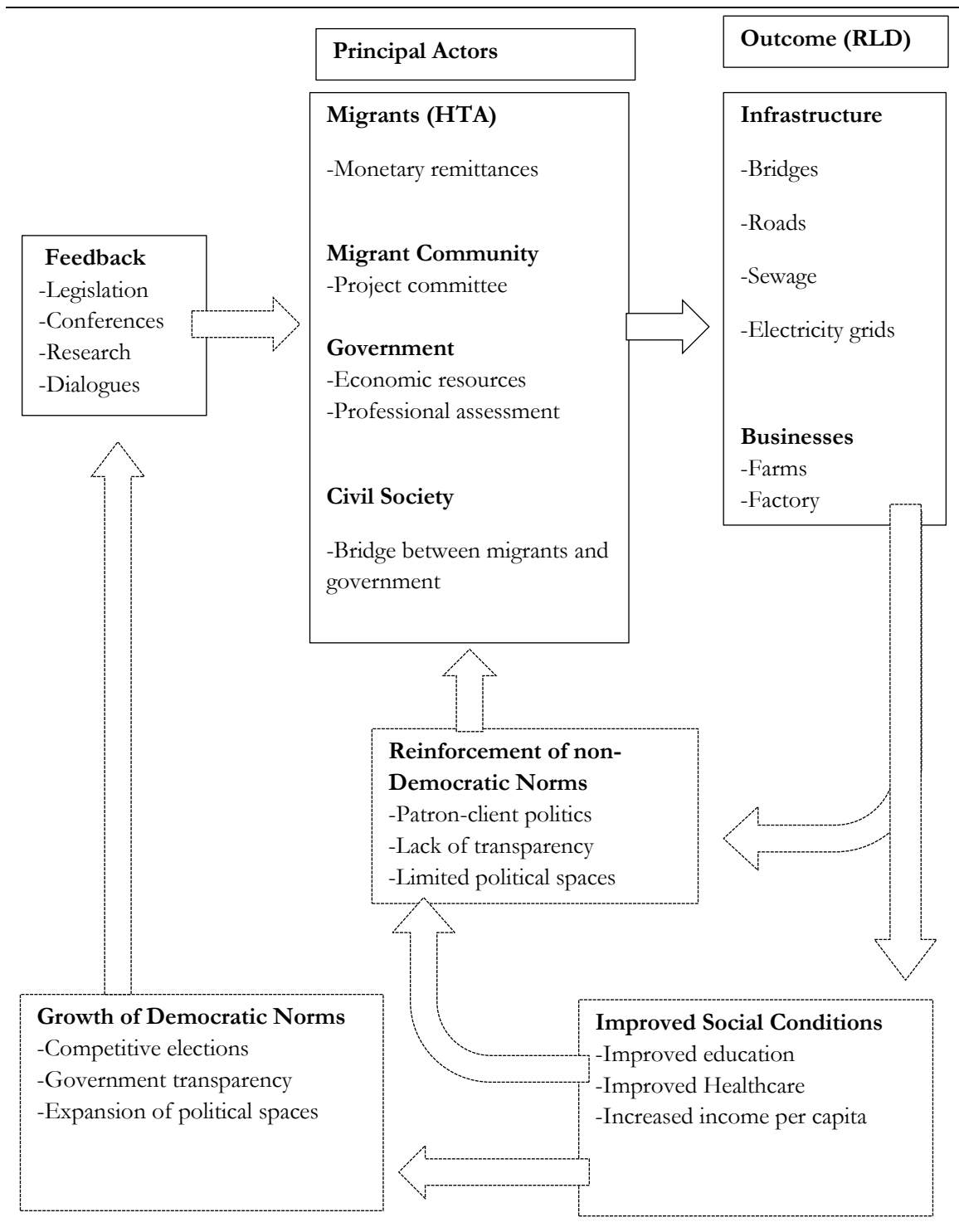
Figure 2.2 displays a flow chart of potential development paths within the 3x1 para migrantes program in Guanajuato. Although tentative in nature, this depiction of specific developmental paths provides a way to visualize the impact of the 3x1 program on Guanajuato. Boxes enclosed by hard lines represent defined procedures inherent to the 3x1 program, whereas boxes enclosed by dotted lines represent potential development outcomes. As the figure illustrates, five principal actors are involved in 3x1 projects in Guanajuato, including: (1) registered HTAs, (2) migrant communities, (3) the state government under the Ministry of Human and Social Development (SEDESHU), (4) civil society associations, like MIDE A.C., that assist migrants in their development initiatives and (5) private sector groups such as Western Union and the IDB, which occasionally provide migrants with private funding for development projects. In turn, two possible kinds of remittance-funded projects define the 3x1 program: (1) public works projects (bridges, roads, the expansion of electricity grids, community centers, public spaces, etc.) and (2) entrepreneurial projects such as textile factories, dairy farms and shoe factories.¹¹

Figure 2.2 also reveals several potential development outcomes. Under the best conditions, for example, one might expect to find that 3x1 investments cultivate improved social conditions; thus increasing access to education and health care and improving income per capita. In turn, improved social conditions would be expected to be foster democratic consolidation.¹²

¹¹It is worth noting that while public works projects remain far more common within the 3x1 framework, since 2007 Guanajuato's state government has made a strong push to promote more entrepreneurial projects. On that note, while migrants and the government are involved in all 3x1 para migrantes projects, organizations from civil society, such as MIDE A.C. and the private sphere, such as Western Union, typically are only involved in RLD projects that focus on small businesses.

¹²The relationship between economic development and governance is addressed at length in Chapter 5 and 6 of this study. For readers interested in a more in-depth review of extant research concerning this topic please see the literature review provided at the beginning of Chapter 5. As it pertains to the discussion at hand it is sufficient to note that researchers have documented a positive relationship between economic growth and the emergence of stable democracies.

In the best of cases, this process could lead to informative feedback loops following the completion of projects in which migrants and government officials engage in dialogue concerning future projects. Related to this, it is worth mentioning that the government, in conjunction with Mexican HTAs in the U.S., does organize RLD conferences in cities such as Chicago, Los Angeles, Houston and Dallas. These forums provide the government and migrants with the opportunity to discuss the outcomes of RLD in the state of Guanajuato, and most importantly, they allow for both parties to learn from past experiences. Still, one might just as well expect to find that 3x1 projects reinforce non-democratic norms by supporting traditional patron-client politics. It is important to note that this outcome could result even if 3x1 investments are found to stimulate economic development and better social conditions.



Source: Author.

Figure 2.2 Potential Development Paths Within the 3x1 para Migrantes Program

In general, Figure 2.2 addresses several potential scenarios:

Scenario 1: Household remittances and remittances channeled through the 3x1 program have important economic multiplier effects within local communities in Guanajuato. Thus, 3x1 investments share a positive relationship with other predictors of democracy such as education, competitive elections and economic production, and a negative relationship with inequality. Moreover, the political spaces created by the 3x1 program incite democratic political practices and norms.

Scenario 2: Household remittances and remittances channeled through the 3x1 program have important economic multiplier effects within local communities. However, while 3x1 investments share a positive relationship with other predictors of democracy, such as education and economic production, they share a negative or insignificant relationship with political competition. In this scenario, 3x1 investments would be expected to contribute to the establishment of economic and social conditions that favor the emergence of democracy *without* directly sharing a relationship with improved democratic practices and norms.

Scenario 3: Household remittances contribute to economic growth but investments through the 3x1 program do not lead to economic expansion. Rather, 3x1 investments share a negative correlation with growth and a negative correlation with political competition. Moreover, 3x1 investments share a positive relationship with the dominant political party (PAN) and a negative relationship with other political parties. In this scenario, 3x1 investments are best thought of as a clever political patronage system in

which politicians of a particular stripe provide communities with token support in exchange, presumably, for electoral backing. Thus, in practice, the political spaces created by the 3x1 program reinforce client-patron relationships of the past.

The aforementioned scenarios distinguish between potential development paths within the context of RLD in Guanajuato. Still, as the reader will note, these scenarios are not necessarily mutually exclusive. Rather, as Figure 2.2 indicates, it is quite possible that all three scenarios play out in practice to varying degrees. Thus, progress should be measured by the degree to which the first two scenarios occur in relation to the latter. Here it is important to point out that it is unlikely that improved social conditions in and of themselves stimulate democratic consolidation. Rather, it is expected that over time the *specific dynamics of the struggle to improve social conditions* within the 3x1 framework may potentially—at the community level: through skills learned, political orientations developed, the “habits of the heart” that people learn by working together; at the level of political leadership: via accountability structures; new forms of transparency—foster a gradual transition in which democratic practices and norms slowly erode non-democratic structures and behavior.

While the scenarios outlined above by no means exhaust the potential array of ways that RLD may shape the political economy of Guanajuato and, by extension, all of Mexico, they begin to suggest the important variations in how such impact may be playing out. Thus, they argue for the importance of a deeper analytical understanding of how these dynamics have played out in recent decades. In the ensuing chapters, as a means of contributing to such an understanding, I analyze the impact of 3x1 investments on social, political and economic conditions across Guanajuato’s 46 *municipios*. Through this analysis, I strive to contribute to our understanding of how migrant voice has leveraged local development in modern Mexico.

Chapter 3: Three Cases of Remittance-led Development in Guanajuato, Mexico

“How could anything be worse? Indeed it could –the times disaster struck, broke in upon the even tenor of these plowmen’s ways. Within the rigid, improvident system of production, no reserve absorbed the shock of crop failures. No savings tided him over whose roots rotted in the hostile ground. The very idea was a mockery; if he had had those coins, to what market would he turn? Trade took food from the village, never brought it back. When the parched earth yielded only the withered leaves of famine, then, alas, conditions were somewhat equalized. Farmer and cottier look to their larders, already depleted since the last year’s harvest, and, reconciled, delayed the day the last measured morsel would disappear. Many then reached in vain, found starvation in the empty barrels. No power could help them.” (Oscar Handlin 1951:22)

In this chapter I provide an ethnographic snapshot of RLD in practice. Each village depicted in the space below represents a real town located in the state of Guanajuato. In each case, although the events described are grounded in reality, pseudonyms are used to protect the individual protagonists. The only exception to this is in the case of government officials, who, as a result of their public positions, are identified by their real names. Each case study presents the reader with distinct facets of RLD as evident on the ground in Guanajuato. The cases were purposefully selected as broadly representative of the main patterns of RLD evident at the time the research was being undertaken. In particular, the cases help the reader visualize the depth of RLD in typical migrant-sending communities in the state of Guanajuato. Each case study is constructed from ethnographic data that I gathered during the summers of 2010 and 2011, as well as during shorter trips to Mexico during the period 2009-2012. (For a full list of interviews conducted please see Appendix 12.) During these periods, semi-structured, in-depth interviews were conducted with migrants and government officials. In addition, documents were collected at official events and occasional speeches by migrants and public officials were recorded and later transcribed. It is important to note that meaningful interpretation of the statistical output presented in chapters 4, 5 and 6 would have been virtually impossible without this extended

exposure to RLD in action. On that note, I invite the reader to revisit this chapter as he or she ventures into the subsequent chapters of this study.

Ojo de Agua de Mendoza, Jerécuaro, Guanajuato

Ojo de Agua de Mendoza, population 1,083, is situated in southern Guanajuato, one of Mexico's traditional migrant sending states. Today, Ojo de Agua's economy is largely reliant on remittances sent by migrants living in states across the U.S., including: Arizona, Colorado, Georgia, Illinois, New Mexico, Texas, Louisiana and Nebraska. It was not always this way, however. Like many rural towns in the Bajío region of Mexico, Ojo de Agua's first migrants left for the U.S. as early as the 1910s. Prior to the early 20th century Ojo de Agua's economy relied almost exclusively on the cultivation of corn and beans and other forms of subsistence farming. During this time period the town was largely isolated from the outside world. Similar to the rural villages at the end of the middle ages in Europe, such as those described in the above quote from Oscar Hardin's classic book *The Uprooted*, the town's surrounding land was long managed by a strong-handed *hacendero* and the moral values of the people were guided by the Catholic Church. However, unlike medieval Europe, in Ojo de Agua the firm hold of indentured servitude was not to be broken by a religious reformation or rapid industrialization, but rather, by a brutal revolution and mass migration to the U.S.

The town's first migrants are said to have left during the chaotic decades that followed after then-dictator Porfirio Diaz was violently thrust from power in 1910. The revolution of 1910 marked the end of the repressive peasant society that was established in Mexico in the decades ensuing the Spanish conquest. However, violence and social turmoil displaced hundreds of thousands of citizens across the country. Refugees poured into urban cities throughout the country and many countrymen and their families, including several from Ojo de Agua, migrated

to the U.S. in search of work and stability. This initial exodus laid the foundation for future migrations to the U.S. Still, few would have predicted just how many individuals would come to follow in the footsteps of these early migrants.

Since the early 20th century hundreds of people have left Ojo de Agua for the U.S. Some have returned but the majority has settled down permanently in *el Norte*, which today is a term commonly used in Ojo de Agua and other parts of rural Mexico to refer to the U.S. That is not to say, however, that they have forgot about their hometown. Take, for example, Pedro Gonzalez who left his hometown in the early 1980s. By the time Pedro left the dusty hills of Jerécuaro there were already deep migration networks established on both sides of the border. These social links served him well when he made his first migration to Mexico City in 1987, where he lived and worked with cousins for over two years. Then in 1989 he made his first trip to the U.S., where his brothers helped him get a stable job as a cook in the southwest city of Albuquerque (Interview, Pedro Martinez).

Today, Pedro continues to live and work in Albuquerque. He has been employed at the same family-owned restaurant since 1991 and over the years he has maintained a strong relationship with his hometown. Each year he returns to Ojo de Agua during the months of July and December to visit family and since the beginning he has sent remittances to his loved ones to help mediate the costs of living. He also owns a small *tortilleria* or tortilla factory, financed by money sent home over the years, which his brother runs in his absence. Occasionally, like other migrants, he pitches in to help pay for the village's largest celebration, La Fiesta de la Santa Cruz and he played an instrumental role in the reconstruction of the town's temple. Finally, in 2008, when he was in Ojo de Agua on vacation, he and a cousin began discussing the possibility of doing something larger for the town. Together they decided that their first project would be to

repair the village's main road, which connects the town to the *municipio's* main city, Jerécuaro. When they returned to the U.S. they began calling up community members living in other states and despite the fact that many migrants questioned the pair's good intentions, slowly but surely they put together a modest \$10,000. The next time they returned to Ojo de Agua, with no previous experience in road construction, they rounded up a group of men, loaded up Pedro's truck with gravel at the local supplies store and set out to repair the town's road. They had just begun working when the town delegate, Salvador Rodriguez, stopped by to ask what they were doing. After listening to their story, he informed them that the government had recently started supporting migrant community projects through a program called *3x1 para Migrantes*. Pedro and his cousin thanked the representative. However, due to a lack of trust in local officials, neither of them ever looked into the program. Then, sometime later after Pedro had returned to the U.S., Mr. Rodriguez called him and told him that if he visited his local Mexican consulate in Albuquerque they would help him register a Hometown Association (HTA) with the Mexican government. A registered HTA, Mr. Rodriguez explained, would make his group eligible to receive \$3 for every \$1 they were able to raise for public work projects in Ojo de Agua, including roads. In the fall of 2008 Pedro registered his group with the Mexican consulate located in Albuquerque and since then he has helped complete the construction of three roads in Ojo de Agua. The new roads have allowed for improved public transportation between the town and nearby Jerécuaro, which in turn has permitted its inhabitants to access better education and more reliable health care. To the developed world these improvements may seem minuscule. However, as anyone who takes the time to visit the small town and talk to its residents will quickly find out, for the inhabitants of Ojo de Agua the recent changes are nothing short of monumental. As one middle aged man interviewed during a site visit in June of 2011 put it,

“Everything you see here, the houses, the roads, the water system, the soccer field, all of it, it’s all thanks to them [the migrants]. Without *los paisanos*, who knows if Ojo de Agua would even exist anymore” (Interview, Local Resident 1).

Still, while much of the progress made in Ojo de Agua over the course of the last few decades stands as a testament to the hard work of migrants alone, in recent years the state has played an increasingly important role in facilitating RLD in the town. As mentioned above, for example, initially Pedro began supporting development projects independently of the state. However, during each of the 3x1 projects that he and his HTA have supported, he has worked closely with the town’s local representatives. In particular, Pedro has coordinated with Salvador Rodriguez, who lives in Ojo de Agua and was the town’s main delegate for the period 2003-2009. What follows is a brief clip of an interview that I conducted with Mr. Rodriguez in the summer of 2011.

Author: Your town has carried out a great number of projects. I didn’t realize how much had been done until I came here. It’s clear that there has been a lot of change in town.

Mr. Rodriguez: Yes, not long ago all of the streets were very poor and so we took it upon ourselves to improve them. Pedro started to help me even before the government started working with his group. In fact, he paid for all of the labor costs for the road that leads to his house.¹³

Author: Before 3x1 existed?

¹³ It is important to point out that while the first project Pedro Martinez supported does indeed lead to his house, it is also the town’s main road. Given this, it would be misleading to interpret this project as stemming from self-interest. To be sure, migrant projects are likely stimulated by a combination of self-interest and altruism. That said, during my site visits to migrant hometowns in Guanajuato I got the overwhelming sense that the large majority of RLD projects are the product of a deep sense of loyalty that migrants feel for their hometowns.

Mr. Rodriguez: Well, 3x1 already existed but we hadn't taken advantage of the program yet here. The first phase for us was to expand the streets. I told Pedro, "Just let me know how I can help you. Just let me know and we'll get the machines and get going." And that's how we got started. I went to the municipal presidency and solicited a bulldozer, which they lent us. We had to supply the diesel and get local residents to move their fences back so that we could widen the streets...Later we began to work with the 3x1 program. Pedro asked me, "Look, I want to begin paving the streets but there are three types of pavement: asphalt, cobblestone with cement and pavement with curbs. Which one do you suggest?" I told him that we should go with the best option, even if it were more expensive and he agreed. At that point he began to work on the necessary paperwork on his end [via the Mexican consulate] and I began to communicate with someone I knew in the municipal president's office that had helped me a great deal in the past.

Author: So Pedro began working with the consulate in Albuquerque?

Mr. Rodriguez: Yes, in the consulate. He spoke to me a great deal about the consulate. I told him, "Look, you get together your hometown association on your end and I'll take care of putting together a project committee on this end. When everything is ready the municipal government will communicate with you and we will begin." And now that the projects are done I feel very proud and privileged because I arrived here ten years ago and since then many things have changed.

Author: Oh, so you are not from Ojo de Agua?

Mr. Rodriguez: I was born here but I left when I was fifteen. I went to D.F. [the Federal District]. I made a life for myself there and that's where my children were born. Once I

was a little better off I came back with my family with the intention of migrating to the United States. But once I began working here I decided that I wanted to do something for my hometown. I'm very proud and very happy with the local authorities. For me there is no such thing as a bad government. Some people criticize the government but while I was serving as a representative everyone in the municipal presidency was very helpful.

Author: Did you work with different parties as a representative?

Mr. Rodriguez: Yes, one municipal president was with PAN, and the other was with PRI. The one that was in the presidency three years ago, Joselito, helped me with 162 hours with the D7 (bulldozer), two trucks and 163 hours with the excavator.

Author: So in the municipal presidency is there a need to pressure officials or do they simply help any 3x1 project that they can? That is, is there competition for 3x1 project funds?

Mr. Rodriguez: Well, you can feel the competition for funds because in the presidency they give priority to the areas that are in most need: roads, electricity and potable water. But it is also worth mentioning that local representatives must push for his or her projects because if a representative just goes in once and turns in the paperwork the project will never get off the ground. I had the experience that with the government one has to be very, very firm and you have to keep pressuring until they finally say, "Alright, give them the funds so that they will leave us alone." That's really how it is. I dedicated six years as a local representative and that was my experience.

As this exchange demonstrates, migration runs deep in rural townships across Guanajuato. Mr. Rodriguez, for example, was himself a migrant and it was not until he was able to achieve

economic stability that he returned to Ojo de Agua. In particular, this exchange does a good job of highlighting the potential for remittances to stimulate employment and subsequently help reduce migration rates. In this case, Mr. Rodriguez chose to remain in Ojo de Agua despite his initial intention to migrate to the U.S. Currently, Mr. Rodriguez produces and sells building blocks in Ojo de Agua and other nearby towns. Given the region's strong reliance on remittances for economic activity, it is safe to conclude that at least in part Mr. Rodriguez's business is able to sustain itself due to the local building boom driven by migrant remittances. This suggestion is confirmed in Chapter 5 where multiple regression results demonstrate that RLD in Guanajuato improves the quality of life in migrant-sending regions and in doing so helps abate migration rates.

Mr. Rodriguez also clarifies the role of local representatives in the 3x1 program. As he points out, a representative must be very persistent in order for projects to move forward. Taken together, this case is representative of a typical 3x1 project in which a HTA president plays a crucial role in pooling together migrant remittances and a local representative works through the ins and outs of the local political system. In this sense, Ojo de Agua de Mendoza reveals the substantial overlap between RLD and local politics in the state of Guanajuato. The next case, in turn, illustrates a somewhat more atypical case, in which the HTA president becomes a pseudo-representative for the community.

El Timbinal, Yuriría, Guanajuato

El Timbinal, population 538, is located in the southern most extreme of Guanajuato, near the border with Michoacán. Like other hometowns across the state, El Timbinal's local economy is largely dependent on migrant remittances. However, the town is somewhat unique in that while migrants have privately funded more than a dozen public works projects since the

late 1980s, the town's only use of 3 x 1 funds was registered in 2009 for the reopening of a textile factory or *maquila*. The factory was built in the late 1990s through an initiative named *Mi Comunidad* or My Community, which was spearheaded by then-governor of Guanajuato, Vicente Fox. The program sought to channel migrant remittances towards the construction of maquilas throughout the state. El Timbinal's maquila, however, like the rest of the more than twenty maquilas funded by Mi Comunidad, closed its doors after just three years of production due to the factory's failure to successfully insert itself into the tumultuous global market that emerged in the wake of September 11th, 2001. The factory remained closed from 2001 to 2009 but eventually the president of the HTA in El Timbinal, Ángel Calderón, was able to convince the state government to provide the town with 3 x 1 funds to aid with the training of new factory workers and the development of more effective marketing strategies. Interestingly, in this particular case, while the federal and state government each contributed \$510,159 pesos or roughly \$40,812 dollars to the project, the local *municipio* of Yuriria did not contribute anything to the project.¹⁴ The reopening of the factory was nonetheless considered a 3 x 1 project because it was also supported by Western Union, which donated \$216, 627 pesos or roughly \$17,330 dollars. Currently, the factory is run by *Las Mujeres Emprendadoras del Timbinal*, a group of five women who have been thoroughly trained by MIDE A.C., a civil society association that works with migrants in central Mexico (introduced at length below). At the moment the factory is operating on a contract basis only but it is in search of more stable, long-term contracts that will permit it to sustain overtime. Taken together, the efforts in El Timbinal provide a good illustration of the potential for remittances to promote economic growth and political change in rural Guanajuato. I expand on this relationship in the paragraphs that follow.

¹⁴ Note: Peso amounts converted to dollars with an exchange rate of 12.5 pesos to 1 US dollar.

Don Ángel Calderón, the president of the HTA in El Timbinal, migrated to the U.S. as a young man. For many years he worked in agriculture fields but he currently oversees three migrant shelters in Napa Valley that provide housing to migratory workers who are employed in the valley's fertile wine fields. In the space that follows I provide a brief account of the nature of Don Ángel's work in order to give the reader an idea of the knowledge sets that Don Ángel has acquired in the U.S. through his work. The following conversation recounts how he got involved in his current job:

Ángel: One day I happened upon a group of 40 peasant workers living under a bridge. And among these 40 peasants were 3 women and one of them asked me, 'Imagine the nights that we have to spend with these 40 animals, with all the alcohol they consume one doesn't have to have much of an imagination to figure out what goes on here.' And I responded, 'M'hijas ,why are you here?' To which she responded, 'Where the hell are we supposed to go?!' So I got them out of there and took them to a Catholic Church and the Father made space for them. From there I went back to the peasants under the bridge and I told them if they stopped drinking I would start looking for a place for them to live that would provide them with access to covers, tooth brushes, tooth paste, soap and so on. I began to take photos of their living conditions and with the photos in hand, I would go around to the grape producers. I would tell them, 'Here is your labor force. This isn't Central America and its not Mexico. This is the United States, this is California, this is Napa Valley. And this is *your* labor force, you know these individuals.' Alone I went from one producer to the next. I focused a lot of time on this, two years in all.

Author: When did all this start?

Ángel: In 1998.

Author: So just before the maquila opened in El Timbinal?

Ángel: Yes. Yes and then in 2000 I began working full time with the migrant worker program [in Napa Valley] and at that time it was just one center, we only had twenty tiny bunk beds. Three to each room, we stuffed sixty people in there, which was difficult but we began to work.

Author: Did you receive government funding for the project?

Ángel: No, at first we collected a small rent of \$10 per day from the migrants and the grape producers gave a small donation. Later we acquired funds from different organizations and then, in 2000 we pushed for a small tax of \$10 per acre, which provided us with half a million dollars for the program. By 2003, so in three years, we had three good centers, nothing opulent but good. A clean bed, a small room for two people, three meals a day, six days a week. I managed the whole program for six years and in those years, I pushed my twelve employees to provide good treatment. I had to let several people go for not treating the workers well. I ran off one of the managers and his family because they used expressions like “pinche Oaxaqueños” or “damn Oaxaqueños”. When the harvest season was over I let them go...The most important thing in the center is respect. They are all honorable workers, they are the responsible people in the valley, they are humans. Right now we have a good system and we provide housing for 180 workers.

As the aforementioned passage reveals, like many HTA leaders, Don Ángel is a highly altruistic individual and his noble actions are evident on both sides of the border. Moreover, as I demonstrate below, it is evident that Don Ángel's work in the U.S. naturally feeds into the

nature of the projects that El Timbinal's HTA has supported in Mexico. For example, as manager of the Napa shelter, Don Ángel has come to demand respect and equal treatment for all and as the excerpts below reveal, he has placed similar demands upon those individuals that have come to participate in the maquila in El Timbinal. Most importantly, as Don Ángel expressed to me while walking through his hometown streets, in the U.S. he has seen the ability of his people to change and adopt to new cultural norms and for that reason, he knows that change can also be brought to the hills of Guanajuato. Change, however, takes time and as Don Ángel explains, El Timbinal has already transformed a great deal in recent decades.

At the beginning of the 20th century El Timbinal was a small, rural village located at the end of a dusty trail. Similar to Ojo de Agua de Mendoza, the main economic activities included raising cattle and planting corn and beans. The passage that follows recounts this humble beginning:

Author: Was there a hacienda here before?

Ángel: No. Evidently during colonial times several men found a place where there was potable water and there was space for cattle. There were grasslands and that was it. The first settler was a colonel, his wife and three children, all males. Eventually his children married and with time, other families came. Among the founders were the Calderons [Ángel's forefathers] and then other families came from nearby communities, the Hernandez, Hilda and Victoria's families [women that currently work at the factory].

Author: So your family was one of the first to settle this area.

Ángel: Yes, most likely. And for many years we were stuck. There was no road. Everywhere you went you had to go by foot or on the back of a burro. But now, everything you see is work of the immigrants.

As the above quote illustrates, El Timbinal's residents trace the town's origins back to colonial times and many of the town's current inhabitants, including Don Ángel and the women that work at the factory, are direct descendants of these original inhabitants or *pobladores*. For generations economic activity in El Timbinal revolved around subsistence farming and ranching. According to villagers, the town did not begin to change until the onset of migration to the U.S., which began during the *Bracero* period. The first remittances arrived as migrants began to settle in the U.S. and as Don Ángel explains, they changed everything:

Author: And when did the first migrants head north?

Ángel: With the *bracero* program, in the 1940s and 1950s.

Author: Until 1964?

Ángel: Until 64' when the program ended and then another [large] wave in 1996 [unrelated to the bracero program] because the people couldn't survive because the land here was deteriorated, so the people migrated to Mexico City. Others went to Iztapalapa, where there are usually small partials of land available, and some to the town of Guadalupe. Whole families left, many houses were left abandoned. A lot of people left. In 1970 it became commonplace to see people leave for the United States without documents. By the end of the 1970s migration was strong. During the 1980s it was an invasion. We would leave in the month of January and February in groups of ten. We would leave here and proceed to Zelaya and then on to Irapuato where we would grab a bus to Tijuana. And in Tijuana...

Author: How would you cross?

Ángel: We would walk through the hills. In the 1980s it was easier to cross. During those years there was a tremendous migration. After the amnesty program [IRCA, 1986], the

family reunification program, whole families would leave and that has continued up until the present. One would simply submit the paperwork and wait until he was called for an interview and then, the whole family would leave. And from one day to the next, families of five, six, four, three would uproot and head north.

Author: What changes has migration provoked in the village?

Ángel: Immigration has driven a great deal of drastic changes. The population has gone down. Construction has gone up due to remittances and the economy has changed considerably. Now the people dress well and eat well, they can pay for a taxi, they can travel...in that sense the economy has improved a lot with the remittances. But here there is no productivity in the community. No agriculture, no cattle and the only source of work is external and that's what we would like to change with the factory.

In the above passage Don Ángel refers to the Immigration Reform and Control Act, or IRCA as it is commonly known, which U.S. legislators passed in 1986. The act fundamentally changed Mexican migration due to the fact that it created a new set of social nexuses through which millions of undocumented immigrants were able to solicit a path to legal residency for themselves and their immediate family members. As Don Ángel reveals, out-migration led to a series of important changes in El Timbinal. However, while remittances created new consumers in El Timbinal, they did not generate jobs; which, as Don Ángel points out, is the goal of the factory. Still, the HTA's communal development plans did not begin with the factory. Rather, RLD commenced in the 1980s with the public works projects that Don Ángel and other migrants subsidized with money earned in the U.S. These initial migrant projects were not supported by the government but rather, as Don Ángel put it, "were 1 x 0."

Author: What were the first projects that migrants funded in the town?

Ángel: We invested about \$7,000 [in the church] and it was 1 x 0, there was no government assistance. While we were doing this we realized who was willing to cooperate and that helped with future projects. The second project was to tear down the old kindergarten and build a new one. This project was 1 x 0 as well and we invested about \$14,000...Then we supported the Lepitos [children of a migrant family] so they could study music because they weren't doing anything productive. Their fathers were in the U.S. and their mothers couldn't control them and their boys frequently went out to party. It was dangerous because they could get into fights and Raúl was one of the leaders of the group and other kids in town followed his lead. And pulling these kids ears didn't work, so we gave them activities. I gave it a lot of thought and I realized that perhaps if they got into music they would end up doing something productive. We found a retired musician to teach the boys music. Some of them quit being loafers and started playing in a band, others went on with their lives but they became more productive. After that we fought for a better central plaza. I didn't completely agree with the project but we went along with it because the municipal president said, 'Whatever you guys raise for the project I will match' and so we build a new plaza and added an arch to the church...I didn't like the project because it was a very expensive project and in those years there were still outbreaks of diarrhea every year. The problem was that every year during the rainy season the weeds would grow up and the people started to use pesticides and herbicides about that time and so the water was no longer potable. You couldn't even bath yourself in it, you had to go outside to wash clothes. So eventually we funded a project to pipe in potable water from a well outside the village. And after that is when we opted to invest in a productive project, and that is when it got

complicated, it is very difficult to create a business, a clothes factory, for example, in place with these characteristics. And that's what we told the community, which had traditionally been a farming community and wanted to convert into an industrial community. We knew it would be an ordeal, that it would be a long road and that we would have to change a whole culture.

As the above quote demonstrates, migrants, and Don Ángel in particular, have played a fundamental role in the town's development over the last thirty years. Not only have they funded public works projects but they have also played a principal role in the social welfare of locals by helping fund a community center and extracurricular activities for youth. Also, as the previous exchange illustrates, Don Ángel, although not always successful, has pushed for projects with high social impact, such as the potable water project and the factory. Still, the factory is unique from previous projects carried out in El Timbinal in the sense that it marks the first time that migrants have worked in conjunction with state officials. In fact, as Don Ángel explains below, the state government was proactive in convincing HTA members to pursue the maquila project through the program Mi Comunidad. Nonetheless, the only monetary support the government supplied came in the form of a large loan. According to Don Ángel, had the migrants build the factory at cost it would have run roughly \$50,000. The government, however, insisted that they take out a loan to buy the material and so El Timbinal HTA borrowed \$50,000 and paid back the money in installments. Over the course of two years they returned a total of \$100,000. When I inquired further into the nature of the loan Don Ángel pointed out that officials also supplied a technician for twelve months, which cost the government \$25,000. Thus,

in all the migrants paid back \$100,000, twenty-five percent of which consisted of interest rates.¹⁵

Concerning the HTA's relationship with the government Don Ángel had the following to say:

Author: So the government provided you with a good deal of technical assistance?

Ángel: Yes but back in April [of 2009] when we began thinking about reopening, I didn't want to get involved again with the government. I simply asked that they assist me with the bureaucratic paperwork that one has to go through every time one goes into a government office. For God's sake, it can be so frustrating. They treat you bad, they run you off and so I told the Governor, help me with the bureaucratic work –with the Federal Electricity Commission, the Treasury...that's all I wanted but someone in the government said, 'Wait a minute, how much did you invest originally? Ok, what you need to do is solicit a 3 x 1 project and that way you can receive government assistance to reopen the maquila.' So that's what I did but it was advice from the government. They offered it and so I accepted. We sat down and wrote up the project. They revised it and we negotiated the terms and finalized the agreement. That's when we remodeled part of the maquila, we bought a pick-up, two more machines and computers. We invested the majority in the remodeling.

As Don Ángel went on to point out, the 3 x 1 project has allowed the maquila to reopen its doors and has the potential to generate a valuable source of employment for the community. In general, it is worth highlighting the proactive role that state officials have played in convincing the HTA in El Tumbinal to work through state-sponsored programs, including Mi Comunidad and 3x1 para migrantes. In interviews with government officials and migrants I have found that

¹⁵Readers from developed nations might interpret a twenty-five percent interest rate as unnecessarily high. It is important to point out, however, that in most developing countries around the world credit is extremely hard to come by, and where it is accessible, interest rates tend to be much higher on loans than is customary in developed nations.

this is typical of most 3x1 projects across the state. This is of particular interest because it demonstrates the importance of 3x1 investments from the perspective of local and state officials. This point is corroborated by regression results in Chapter 4 of this study, which demonstrate that 3x1 funds make up a significant percentage of public works investments in rural towns across the state.

Another point of interest that emerges from El Timbinal concerns the relationship that has formed between the HTA and *Migración y Desarrollo A.C.* (MIDE A.C.). Currently, the factory is being supported by MIDE A.C., which is a non-profit civil association dedicated to assisting migrant clubs with the development of projects that focus on generating employment within migrant-sending communities. In the case of El Timbinal, MIDE A.C. has been extremely instrumental in the factory's reopening. The organization, for example, put Don Ángel in contact with the headquarters of Western Union in Englewood, Colorado, which allowed the club to access a grant of \$17,330 dollars from the global financial institution. Most importantly, MIDE A.C. has provided the factory workers with hundreds of hours of training through onsite workshops sponsored by the Inter-American Development Bank (IDB) and they have aided Don Ángel in promoting democratic norms and practices among the factory workers. As MIDE A.C.'s co-founder, Anselmo, explains, the nature of the organization's work is part of a larger vision aimed at promoting democratic development norms and what Anselmo referred to as "political capital" within Mexico's nascent democratic society:

Author: How did MIDE A.C. begin?

Anselmo: Alejandra [the other co-founder of MIDE A.C.] worked in the federal offices of SEDESOL in Mexico City and she was working with the program 'Oportunidades'. The goal of the program was to reduce the high levels of poverty in Mexico. So she

worked with highly marginalized populations throughout the country. Alejandra and I talked frequently about the situation that was taking place in Mexico. Vicente Fox had just won the presidency, PRI was out but it was clear that there was a need for more civic participation. We also talked about how the respective powers—the executive, the legislative and the judicial—were beginning to divide and that given all the changes, there was an opportunity to develop a sort of ‘social lobby’ which didn’t exist in the country. There were lobbyists for businesses. The pharmaceutical business, the auto industry, the insurance companies, they all had lobbyists but there were not lobbyists for the people. And around that time, at the outset of Fox’s *sexenio* Congress passed a law that supported sustainable rural development and part of the legislation called for the promotion of investment strategies that channeled remittances from migrants living in the exterior towards development and that is when Alejandra and I saw an important opportunity to begin lobbying for the people. And so that was the situation, we heard the Congress, the federal government, the executive, the legislators and public officials talk about the growing interest in working with the Mexican community to create a favorable environment for development in migrant hometowns...so, we began the initial process of founding an association that would be an intermediary between the government and migrant organization. Why? Because the government’s discourse was poorly understood by both parties and just as the government didn’t understand the migrants well, the migrants did not understand the government...And so we decided to promote the investment of migrants in their hometowns and offer them a contact point and a means through which to contact key legislators that were in one form or another

conscious of the role of the participation of everyday citizens in politics. We also felt a need make people aware of their political rights as migrants.

Author: How much time passed between the initial idea and MIDE A.C.'s official debut as a civil association?

Anselmo: We left our respective jobs in October of 2001 and chartered a civil association in Mexico City. But really two years. Legally we chartered the organization in July of 2003 as a non-profit civil association that could receive grant money from the government in Mexico and from other non-profits in countries like the U.S.

This exchange is of particular interest because it demonstrates the emergence of a feedback loop between policy and practice in regard to RLD in Mexico. In this case, Alejandra and Anselmo left their jobs with different government agencies in order to facilitate the apparent disconnect between policy aimed at improving development norms in migrant hometowns and the actual practice of development in these regions. Their experience highlights the importance of local advocates in the process of RLD in Guanajuato. In my fieldwork and data analysis I found that “social lobbying,” to use Anselmo’s term, plays a crucial role in determining whether or not towns pursue 3x1 projects in the first place. Specifically, my research indicates that the presence of return migrants like Salvador Rodriguez in the case of Ojo de Agua de Mendoza and social advocates like Alejandra and Anselmo in the case of El Timbinal play a particularly crucial role in leveraging RLD.

Finally, it is necessary to highlight the ways in which the factory and the training sessions with MIDE A.C. have changed the lives of the five women that currently manage production. Unlike most rural women in the Mexican countryside, these five individuals are assertive and proactive in factory meetings. For example, one afternoon, while I was visiting the factory in El

Timbinal, I had the opportunity to observe a business strategy meeting held inside the maquila. What was most interesting about the meeting was the manner in which the women interacted with Don Ángel, Alejandra and Anselmo. They were highly participatory in the meeting and proposed, in many cases, very viable solutions to the problems currently facing the factory. Most importantly, it is apparent that the confidence that I observed in the women that day is not limited to the confines of the factory. Rather, their newfound self-assurance as entrepreneurs and business owners carries over into the public sphere. According to Don Ángel, for example, when they have to file official papers with the government they immediately solicit meetings with officials in the state capital and in the meetings they look government functionaries in the eye and ask direct questions. As Anselmo pointed out as we were leaving the town one evening after a visit to the factory, “That’s not how things used to work in Mexican politics, especially in rural areas and never with women.” That is, it was not that long ago that political relationships in Mexico were marked by patron-client ties dominated by men. This was especially evident in the rural countryside where the hierarchal relationships defined during the semi-feudal colonial period were largely reinforced under the seventy-year political reign of PRI. Given this, the very notion of a rural *campesina* sitting down and negotiating the terms of a business venture with the male governor of the state is nothing short of monumental. Still, despite the promising advances made in El Timbinal, as Don Ángel points out in the next exchange, there is still work to be done:

Author: What challenges has your club faced vis-à-vis the Mexican government?

Don Ángel: A challenge not only for the government but also for us, is the community and its culture. This is a challenge for all of Mexico. We need to educate our children, we need to change the culture that we have. We need to be industrious there, dreamers,

ambitious and very productive. Our culture back there is “Let’s go *al Norte* [to the U.S.]”. Somebody else needs to be building bridges, our culture is to go look for work in the U.S. And this is what has us in the situation where we currently find ourselves. As migrants we are generally not entrepreneurs. If you take a second to reflect and you look at the amount of money that migrants invest in business opportunities in Mexico, it’s very minimal. The people invest money from remittances in celebrations, the church and parties. They reconstruct the main park and make the community pretty but it’s less frequent that migrants invest to generate employment or in educational opportunities that will help train our children to become the entrepreneurs of the future. We are not entrepreneurs compared to other nationalities. We are not entrepreneurs, we come to look for work by renting our arms [brazos] here in the United States. And back there, in Mexico we become dependent on government programs. You hear “the government is responsible for my children.” I don’t see it that way. I’m responsible for my children. Not the government, the government didn’t create them, I did. It is my responsibility to educate them and provide them with a good value system, to make them honest, to make them productive and good workers. But of course the government does matter. The representatives we currently have [in Yuriria] are a quite lazy. This is the problem throughout Mexico. The ones who educate our children came from us. They are germs originating from a society infected by corruption and indolence. Changing this culture is the biggest challenge we have as Mexicans.

Author: I see. Related to that, during this second phase of the factory in El Timbinal have you and your fellow migrants been working with the government or have you received any type of assistance from the government?

Don Ángel: We have received the support from the federal and state government but not from the municipal government. With the municipal government it is different, they have a very limited vision and their objectives are very small. Their perspective is very close-minded. However, in our experience with the federal and state government it is very different. At this level the officials are very educated. In their offices you find engineers, architects, contractors, business administrators, ecologists and so on. It is much easier to work with these individuals because they have a different vision of Mexico. In the municipal government, however, things are different. The jobs at this level are handed out based on personal connections and not individual capacity. As a consequence, often they have very little knowledge and they don't understand the first thing about entrepreneurship. Moreover, their administrative period is quite short and as a result projects are often not followed up with. Therefore, they have to hurry up and rob as much as they can in their three years in the *municipio* and as a result they don't care much about the development of their *municipio*. For me it takes a great deal of patience to talk with officials in the municipal government. I don't mean to generalize about everyone but I would say that 80 percent of them have studied very little. Frankly, we [have] had a lot of problems with the municipal governments over the years and we've found that it is much easier to work with the state government. They are much more open to new ideas and change in general.

Author: And regarding the municipal government in Yuriria, have there ever been changes in terms of the ruling party or has the same party always controlled the government?

Don Ángel: Right now it is a big mess. The local government is a disaster. For many years the PRI controlled the government through the traditional *caciques*. Then a young member of PRI emerged and a group of young, professional priistas [PRI party members] took the municipal presidency for a number of years. I worked with a few of them. After that the old priistas, the dinosaurs, jumped over to PAN and they won under the PAN label and they led us to ruin.¹⁶ The next president was the son of the previous president but the son did not run under PAN but instead ran with the green ecologist party [PVEM]. He recently left the presidency and now the president is his wife, who also ran under the PVEM but the family has been involved with PRI, PAN and PVEM. Their party, as you can see, really doesn't mean much.

Author: But the family means a lot?

Don Ángel: Yes and unfortunately the family is a bunch of morons and with them it is impossible to work because they don't work for the people.

Author: And does SEDESOL maintain an office in Yuriria?

Don Ángel: Yes, there is an office for SEDESOL but they always have the same response, "There are no resources, there are no resources." They do small projects, like the reconstruction of parks, and then they destroy the park and they reconstruct it again. But they don't have the capacity to develop entrepreneur projects nor educational projects because the system is messed up.

The image of corruption, individual and systemic incompetence, and nepotism that Don Ángel paints in the reader's head is reminiscent of the now classic film *La Ley de Herodes*, which was

¹⁶"Dinosaurs" is the term commonly used in Mexico to label PRI party members that continue to hold conservative ideals more closely aligned with the traditional party beliefs defined during the PRI's seventy-year reign in the executive branch.

released in 1999 on the eve of the 2000 presidential elections. In the film, the main protagonist is Juan Vargas, who is depicted as a humble but well-intentioned young man who is sent by the Secretary of State, Mr. López, to the community of San Pedro de los Saguaros to take over the town's municipal presidency. Unbeknownst to Vargas, the previous municipal president was beheaded by local peasants for abusing his power. Vargas arrives to the community with the sincere intention of bringing "progress and modernity" to the people of San Pedro de Saguaros but little by little he is corrupted by the benefits of his newfound power. In a relatively short period of time, Vargas transforms into a tyrant who is willing to resort to violence as a means of maintaining his power in the community. The climax of the film is when Vargas screams out to his latest victim, "Te tocó la ley de Herodes, o te chingas o te jodes" [You've met your day with the law of Herodes, or screw yourself or fuck yourself]. As those who have seen the film will recall, Vargas did not make up his infamous phrase but rather, he learned it from the man who appointed him, Mr. López. Thus, the film, like *Don Ángel*, implies that the problem with the Mexican political system is the culture of corruption that is passed down from generation to generation.

Furthermore, as *Don Ángel* points out, there appears to be a relationship between the education levels of local officials and municipal capacity. (I return to this association in Chapter 6.) Unfortunately, the efficiency (or lack thereof) of local bureaucracy can have a tangible effect on migrant projects. In the case of El Timbinal, the migrant club simply chose not to go through local officials, and instead, opted for working with state and federal officials in collaboration with Western Union and MIDE A.C. In the short run, this relationship may aid El Timbinal as a community. Still, in the long run, the lack of accountable and transparent government agencies at the local level will continue to hamper the development of El Timbinal and other

communities throughout Yuriria and Guanajuato. Regrettably, as the next case reveals, the ebb and flow of patron-client politics does not appear to be limited to the municipal level in Guanajuato.

Ojo de Agua/Huanímaro, Guanajuato

Ojo de Agua and El Novillero are located on the border between the *municipios* (roughly the equivalents of U.S. counties) of Abasolo and Huanímaro. Although the towns technically pertain to distinct *municipios*, on the ground it is impossible to distinguish one from the other. Over the years migrants from both towns have dedicated a great deal of their time and money to the development of the community. In recent years migrants from these two towns have come together to form the HTA Club Ojo de Agua y Novillero Unidos (CODAYNU). According to the group's website, the two migrant communities formed their club with the intention of providing a better standard of living for migrants residing in the U.S. and their family members back in Mexico. The organization's main purpose is to improve the lives of Guanajuatenses through investments in public infrastructure, improved access to health care and education, sports and social events and the promotion of new employment opportunities. In recent years CODAYNU has overseen the construction of several roads and a community center equipped with more than 30 computers. Most recently, the HTA has begun developing plans to open a shoe factory as a means of generating a source of local employment.

RLD in Ojo de Agua and Novillero is particularly indicative of the degree to which political ambitions overlap with local development projects, and specifically, 3x1 projects in the state of Guanajuato. In order to provide a more concise account of the relationship between RLD and local politics I briefly recount the inauguration of a migrant project that took place in the summer of 2011 in front of the Catholic temple shared by the neighboring towns. The

government and CODAYNU organized the event together, but as the reader will note, from beginning to end there was a particular high level of political fanfare.

Representatives of Governor Oliva's administration arrived in state vehicles several hours prior to the 11:00 am speech to begin assembling a stage in front of the town's main church. Meanwhile, schoolteachers began leading their respective classes towards the town's baseball field in anticipation of the governor's arrival. While the crowd waited for the governor's helicopter to appear, the government's official photographer passed out little blue flags and led the school children in a series of patriotic jingles. Finally, when the incongruous sound of a helicopter could be made out in the distance, the school band began to play and the school kids began to wave their small, white and blue flags in unison above their heads. Once the helicopter landed and the dust had settled, the HTA leader, Armando Solís, walked out to greet Governor Oliva and the then-director of Social and Human Development and now Governor Miguel Marquez Marquez. The group then proceeded to a nearby street, which had been paved by a 3x1 project. Other members of CODAYNU joined in and shoulder-to-shoulder government officials and migrant leaders began to walk towards the parish. As they walked, migrant leaders and government officials chatted with ease, giving the impression that were well acquainted. A large crowd gathered behind the officials and the marching band continued to play until the group reached their destination. Upon arrival to the town square government officials and migrants leaders took their seats upon the preassembled stage and the crowd began to fill the seats that had been placed in neat rows in the middle of the town's main road. Once everyone settled in beneath the blue awnings, Mr. Solís addressed the crowd with the following words:

Armando Solis: Good morning, I am happy, excited, and nervous all at the same time.

The truth is I never, no matter how many times I speak on the microphone, I will never

get used to it and my admiration for others grows more because I cannot do it and I watch our representatives do it with such authority. In any case, a very good day to all. With permission of the honorable Juan Manuel Oliva, state governor, engineer Carlos Aguirre, Municipal President of Huanímaro, Mr. Marquez Marquez, Secretary of Social and Human Development, Marta Silvia Robles Castro, local delegate, Paramos Aguilar, Municipal President of Abasolo and the people present already mentioned, thank you for being here, and to the integrates of this honorable congregation. Friends, may all of you be welcomed. Welcome and thank you for being here today with the Ojo de Agua/Novillero Club. This is motive for great happiness because we find ourselves united on this morning in order to initiate very important projects that decorate the development of our community. Today we finalize the first stage of the community center and in the next days we will begin the second stage. [In this center] we will serve our people and their environment, people that will now have an area to be used for recreation and to develop their own abilities. Today we will also initiate the main street project. Mr. Governor, our deep gratitude for all the support and help we have received from all of your collaborators. At the same time we thank the federal government and the municipal presidents of Huanímaro and Abasolo, who from the beginning have been willing to make their donations. Rest assured that having your support gives us strength to keep fighting for the land that saw us grow up and that we never cease to yearn for. This is where our people are and for them we will keep working. Mr. Governor and everyone present, this is your home! Thank you! (Applause) Mr. Governor on the behalf of the migrant club, some of whom are present, we would like to offer you a gift. A hat to cover the sun because it is very intense! And well it's a little hot right now but you can

wear it [Armando hands the governor a large, blue and white leather jacket] for the picture at least! [Governor stands up and graciously accepts his gifts. After the exchange, Armando and Juan Manuel Olivas give one another a hug.] And it fits!

As the reader will note, Armando Solis' speech is marked by a strong sense of gratitude for his seemingly benevolent representatives. However, it is important to note that for the most part Mr. Solis expresses his thankfulness not towards the state of Guanajuato but rather towards Governor Juan Manuel Oliva. Mr. Solis' focus on the governor highlights the strong sense of paternalism that ran throughout the speeches given that day in Ojo de Agua and El Novillero. The subservient nature of Mr. Solis' speech reflects the traditional hierarchy of Mexican relations. In this sense, it is not particularly surprising, but it is quite a contrast to the female factory workers in El Timbinal and their breakthrough to a more egalitarian political style. When considered together, the cases presented thus far reflect a state in transition in which local development is both the product of traditional patron-client norms and emerging democratic practices.

Mr. Solis' talk was followed by then-Governor of Guanajuato, Juan Manuel Oliva, who had the following to say:

Juan Manuel Oliva: Thank you! We are grateful for the hospitality that the mayors of this community of Novillero and Ojos de Agua, President Juan Paramo of Abosolo [PRI], and Carlos Aguirre of Huanímaro [PRI], bring us. Thank you for receiving us and for bringing together this team. To the men and women that we appreciate so much, to our immigrant friends and to Armando, thank you for your effort. Today we are here to get started with a series of projects worth 10 million pesos. We are saving...ups all the pesos fell! [The governor accidentally drops his speech but makes light of the error by saying

“oops all the pesos fell!” and then whispering into the microphone, “I just dropped 10 million pesos!” To which the crowd erupts in laughter.] We are saving 1.6 million pesos in the community center for these two communities, 1.3 million to start the paving of Main Street from the program “Tu Calle” and 6.5 million pesos on other paving projects around the community of Rancho de Guadalupe and San Aguirre. And 500,000 pesos to provide 325 families with a firm floor and sturdy roof. But we are here to commemorate the work of men and women we all respect, admire and love. As a public authority one cannot do anything without society. When we speak of that part of society that loves México, that loves Guanajuato, that loves Abasolo and Huanímaro, although being far away from their homeland, we must speak with words of support. We must support their effort. Men and women who risk everything to construct a future in a different country. There, in their second motherland, the United States, being far away from their origin they maintain their culture, their roots, their roots, their origin remains and for them our culture remains something to be proud of for all our *paisanos* [countrymen]. And that is why I tell you Armando and all the immigrants, I tell you thank you for believing in Guanajuato. Thank you for believing in Abasolo and Huanímaro and thank you for maintaining the dream alive of men and woman fighting for their country. I have always said Mexico is only complete if you think about the immigrants, only if you think about Mexico being wherever there is an immigrant...You have all started an extraordinary project with this community center. We all want for Ojos de Agua and Novillero to be internally united. It [the community center] will be a space of preparation, expansion and socializing. Today we welcome the first stage with a budget of 400,000 pesos and at the same time we begin the second stage with one million through the federal program 3x1

para migrantes, which is supported equally by the state, the cities of Abasolo and Huanímaro and the migrants. We would like to tell you we will be advancing with the paving project on Main Street with 1.3 million pesos, the same project that started the great effort of paving the streets that we inaugurated last year. But I would like to say that we recognize your commitment, and I came to announce, thanks to the support of Mayor Juan Paramo of Abasolo, and Mayor Carlos Aguirre of Huanímaro and the governor of Guanajuato, an investment of 3 million pesos to finish the community center... And so let's get to work on the project so that before the end of 2012 we can come inaugurate the project with our migrant friends! We are here to inaugurate the community center, but as I always say, we are working hard so our immigrants can feel proud and so that more Mexicans decide to stay here, while at the same time respecting everyone's right to migrate because it is a right held by everyone. I would like to let you know that we strongly supporting our migrants and their communities. We have developed an impressive scholarship program that supports over 340,000 young men and women with their primary and professional education. We want our residents of these communities to prepare themselves that is why we have built 25 new universities [in Guanajuato], such as "El Tecnológico de Abasolo" which is here close by. We want for you all to grow up to be technicians or professionals to improve the countryside as well as the city. In 2012 we plan to invest in healthcare resources, such as specialized medical institutions. Good examples of this are found in the community hospital in Huanímaro and the hospital in Abasolo, and other hospitals throughout the state of Guanajuato. This will permit us to reach ninety-eight percent health care coverage for the population when before many did not have access to health care at all. Today 2.7

million Guanajuatenses have social security but we must provide coverage to 470,000 Guanajuatenses before we can say that private care and social security have reached 100% coverage. These are extraordinary programs. The program Healthy Pregnancy [*Embarazo Saludable*] states that no woman will give birth without quality services and they can register for this program even if they do not have social security. Also, this extraordinary program gives healthcare to the next generation. All children that are born December 1st of 2013 and after will have the right to social security. We all have to keep pushing and work hard. I would like for a very important dream to come true with the 3x1 program. I am grateful to our immigrant friends for the support they give us so we can multiply federal, state and municipal resources. I hear our immigrants say “let’s go for the community center, let’s go pave the street, let’s fix the public plaza, and let’s fix the church”. However, it brings me happiness that our immigrants begin to think about the function of 3x1 as generating employment opportunities and productivity. There are examples here is Don Ángel [Governor Oliva signals out Don Ángel Calderón, who happens to be in Mexico and was able to attend the event]. Armando, from the Ojos de Agua y Novillero club, now presents us with a project designed to establish in this community an industrial shoe factory. It could generate up to sixty jobs in the beginning. He assures us that the most important thing is creating sources of employment for locals and we will make this factory happen and we will support Armando. We are going to tell Miguel, no? [Governor Oliva turns to Miguel Marquez Marquez, Secretary of Social and Human Development, and motions his approval of the project with a thumbs up.] If I’m not mistaken I will tell Miguel to fund the project for \$5,322,140.85 pesos. Then Miguel will review the project plan with the 3x1 committee and the Secretary on Ecological

Development. This project will generate new employment in the community. You [the migrants] have access to the U.S. market in which to sell the goods the factory produces, which is the most important part. That is what gives the project life. We will begin constructing the necessary infrastructure. This is a great project because we are using money earned by migrants, who have left to access employment in the U.S., as a means of generating local employment here in the communities. It only makes sense to use a share of remittance flows for productive projects to maintain employment and enterprise. I will remind you brother [referring to Armando Solís] that this project will require tenacity, imagination, and a market in which to sell the products produced by the factory. I will tell Miguel to begin to look over the project in a direct manner and together with the Secretary of Economic Development, Don Ramón, we will review the business plan and once the project is approved we will put in our part. I tell the immigrants, thank you for worrying about themselves, their family, thank you for working for your second country the United States, but also thank you for working for a better quality of life here in Mexico and thank you for helping generate solutions for your people. Thank you so much and god bless.

Former Governor Oliva's speech is significant for several reasons. First, the very presence of the Governor in the small ranching community of Ojo de Agua is symbolic of the government's commitment to capture remittance flows and direct them towards development initiatives. In this respect, events like this one are suggestive of the importance that remittances currently play in subsidizing public works projects across Guanajuato. (This point is empirically confirmed by the results outlined in Chapter 4.) Second, the governor's speech clearly reveals the political undercurrents running through the 3x1 program and other development programs. This point is

revealed in the previous quote when the governor takes advantage of the occasion to remind citizens what his government has done for Guanajuatenses throughout the state. Specifically, he cites advances in education and healthcare. And while Mr. Oliva never expressly cites his party in the speech, his rhetorical use of the term “my government” is sufficient enough to associate the government’s achievements with the ruling party, PAN. Finally, Mr. Oliva’s speech clearly reveals the state’s effort to recapture Mexicans in the exterior as citizens and engines of development. It is for this reason the governor emphasizes time and again the importance that migrants play in Mexico’s future.

Conclusions

Taken together, the three case studies outlined in this chapter are illustrative of the intersections between migrant remittances, development and politics in Guanajuato, Mexico. To be sure, while not all RLD is as extensive as the cases described above, there are very few, if any, regions in Mexico that have not been impacted by cash transfers from the U.S. Moreover, as these cases demonstrate, the influence of remittances extends beyond the economic sphere, affecting both local society and politics. The case of Ojo de Agua/Novillero is particularly illustrative of this point. In this community migrants have been very active in initiating local development projects. In fact, in recent years few communities in Guanajuato have taken advantage of the 3x1 program like Ojo de Agua/Novillero. In a relatively short period of time the community’s migrants have completed a number of high impact projects, including: several new roads, a community center and the initial plans for a shoe factory.

Still, what is perhaps most noteworthy of the case of Ojo de Agua/Novillero is the political grandeur surrounding the town’s projects. As the reader might imagine, flying into small, agriculture villages in a helicopter is not common practice among local political leaders. In

this sense, the recent attention that migrant clubs have received from the government is indicative of the state's growing interest in capturing remittance flows and channeling them towards development. It also reflects, however, politicians' growing awareness of the strong connections between their constituencies in Mexico and migrants in the U.S. That is, politicians realize that migrants figure among the most prominent leaders in many rural communities around the state and thus gaining their approval has become a crucial factor in local elections. In this sense, each of the aforementioned cases, and the 3x1 program in general, is instructive of the state's effort to bring migrants back into the national fold. Here ex-Governor Oliva's concluding statements from the speech outlined at the end of this chapter come to mind, "I tell the immigrants, thank you for worrying about themselves and their family. And thank you for working for your *second* country the United States, but also thank you for working for a better quality of life and for helping with productive projects for *your people*. Thank you so much and god bless." As the reader notes, Governor Oliva emphasizes the fact that migrants may have left their motherland, but in the eyes of the state, they will always be Mexicans and Mexicans will always be their people.

The cases of Ojo de Agua de Mendoza, El Timbinal and Ojo de Agua/Novillero demonstrate that at least in some cases remittances have the potential to act as a catalyst for communal development and open up previously closed off political avenues. Based on these accounts, however, there is also reason to question whether or not the inclusion of new participants in the political process necessarily translates into meaningful development and relatively more democratic procedures in practice. That is, one can just as easily imagine the incorporation of new actors into the system without meaningful change. Thus, important questions remain: Do either household remittance or 3x1 investments have a positive effect on

economic development in Guanajuato? Moreover, how do migrants affect the political system across Guanajuato's *municipios*? Finally, does RLD help mitigate the underlying factors driving migration to the U.S.?

As the aforementioned questions indicate, it is clear that further research is necessary to determine the degree to which 3x1 projects actually incite local development and political change on the ground. In the chapters that follow I address these questions via a systematic comparison of RLD across Guanajuato's 46 *municipios*. The results have important implications for migrants and the state alike.

It is my hope that the case studies presented here provide the reader with a more tangible portrayal of investments made through the 3x1 program. I invite the reader to re-visit these case studies frequently as he or she ventures into the chapters that follow. At this point I turn to a quantitative examination of 3x1 investments across Guanajuato's 46 *municipios*.



Interior of church built by migrants in Ojo de Agua de Mendoza, Jerécuaro.



Ojo de Agua de Mendoza, Jerécuaro.

PROGRAMA 3X1 PARA MIGRANTES EJERCICIO 2010



GOBIERNO FEDERAL

MÉXICO 2010

GUANAJUATO

SEDESOL
SECRETARÍA DE DESARROLLO SOCIAL

JERÉCUARO

gto
Guanajuato
Gobierno del Estado
Contigo Vamos

**NOMBRE DE LA OBRA: EMPEDRADO EMBOQUILLADO EN CALLE
GUADALUPE VICTORIA**

MUNICIPIO: JERÉCUARO GTO.

LOCALIDAD: OJO DE AGUA DE MENDOZA

CLUB DE MIGRANTES QUE APOYA LA OBRA:
**"EMPEDRADO EMBOQUILLADO EN CALLE
GUADALUPE VICTORIA"**

INVERSION:

COSTO TOTAL:	\$ 1,405,875.53
SEDESOL:	\$ 313,625.27
GOB DEL EDO:	\$ 313,625.27
MUNICIPAL:	\$ 464,999.72
MIGRANTES:	\$ 313,625.27

Vivir Mejor

Este Programa es público, ajeno a cualquier partido político. Queda prohibido su uso para fines distintos al desarrollo social

Billboard summarizing one of the most recent 3x1 project in Ojo de Agua de Mendoza, Jerécuaro.



Interior of factory built in El Timbinal, Yuriría.

PROGRAMA 3 X 1 PARA MIGRANTES
EJERCICIO 2009

NOMBRE DE LA OBRA: "Fabricación de blancos (prendas textiles) para la Industria Hotelera, en la comunidad del Timbinal, Mpio. de Yuriria, Gto."

MUNICIPIO: Yuriria

LOCALIDAD: El Timbinal

CLUB DE MIGRANTES QUE APOYAN LA OBRA
CASA GUANAJUATO NAPA, CA.

INVERSION:

COSTO TOTAL:	\$ 2,355, 785.53
FEDERAL:	\$ 510,159.79
SEDESHU:	\$ 510,159.79

MIGRANTES: una Nave Industrial, ubicada en la calle Santa Cecilia s/n de la localidad del Timbinal, Municipio de Yuriria, estado de Guanajuato, C.P. 38942 con un valor de \$ 1,118,838.00 para beneficio de las MUJERES EMPRENDEDORAS DEL TIMBINAL S. DE R.L. DE C.V.

WETERN UNION: \$ 216,627.95

* Este programa es público, ajeno a cualquier partido político. Queda prohibido su uso para fines distintos al desarrollo social.

Billboard summarizing El Timbinal's 2009 3x1 project.



Juan Manuel Oliva, ex-Governor of Guanajuato, and Miguel Marquez Marquez, then Secretary of Social and Human Development and current Governor of Guanajuato, arrive in helicopter to a large crowd to inaugurate a 3x1 para migrantes project in the towns of Ojo de Agua and Novillero.



Governor Juan Manuel Oliva and Armando Solis, president of Ojo de Agua/Novillero's migrant club, walk through the streets of Ojo de Agua prior to speaking to the public.



Governor of Guanajuato, Juan Manuel Oliva, addressing a crowd in Ojo de Agua/Novillero.



Government officials and migrants commemorating a recent 3x1 project in Ojo de Agua/Novillero.

Chapter 4: Old Habits Die Hard: Political Patronage and Remittance-led Development in Guanajuato, Mexico

The government depends on two things. The government depends on oil exports, which is its principle form of income. And the second form of income is tourism. But money from tourism is now rivaled by the money sent home by migrants from the U.S. The Mexican is in a very tricky situation. He leaves Mexico in reaction to the misery and he sends money home out of the goodness of his heart. But ultimately, this perpetuates the corruption. (Migrant, *The Other Side of Immigration* 2009)

In the early 1980s Mexico began a tentative transition towards democratic governance. Since then, although the nation is far from a full-fledged democracy, local and national elections have become increasingly more competitive and everyday politics are more transparent than in years past. This process culminated in the year 2000 when Vicente Fox broke the PRI's seventy-one year hold on the executive office. During this same time period increased migration to the U.S. stimulated the flow of migrant remittances to households across Mexico. By 2007 remittances flowing into Mexico surpassed \$26 billion dollars, accounting for roughly 2.5 percent of the nation's GDP (Banco de México 2007). The intersection of political transition towards democracy with mass migration to the U.S. presents an intriguing question: To what degree do migrant remittances influence local politics in Mexico?

To be sure, sojourner networks have had (and continue to have) profound effects on Mexican society. Still, surprisingly little is understood about the lasting impact of emigration on politics at the local level in Mexico. This chapter brings this phenomenon to the fore by focusing on how household remittances and the program 3x1 para migrantes have affected local politics at the municipal level in Guanajuato, Mexico. As becomes evident in the pages that follow, this analysis is as much an opportunity to examine the effectiveness of the program 3x1 para migrantes as it is an opportunity to evaluate the decentralization of political decision making in

contemporary Mexico. I begin this discussion with a brief literature review before presenting descriptive statistics of 3x1 investment trends in Guanajuato. Subsequently, I use multiple regression analysis to evaluate the effect of remittances and 3x1 investments on local election outcomes and voter turnout rates for the period 2002-2011 in the state of Guanajuato. Regression results reveal that under the right conditions remittances channeled through the 3x1 program stimulate higher levels of voter participation, and in this manner, have the potential to contribute to democratic growth. Still, data patterns also indicate that 3x1 investments share a positive correlation with election cycles such that 3x1 investments rise significantly and substantially in the years directly preceding elections. While by no means conclusive, this linkage suggests that authorities may be systematically using the 3x1 program for patronage and/or implicit vote-buying purposes. Still, it is important to note that the use of government programs for patronage and electoral purposes would be neither surprising nor unusual in the context of democratic competition anywhere; nor would such a pattern of attempted manipulation of the program *necessarily* undercut the potential for positive economic and democratic impact of the 3x1 program. However, it at least raises questions to be examined through careful analysis of the actual programmatic impact of the 3x1 program. With that in mind, the research presented below, via an extensive analysis of 3x1 investment patterns in Guanajuato, focuses on the depth of democratic consolidation amidst the decentralization of political decision-making in post-PRI Mexico.

Decentralization and Participatory Democracy in Latin America

Nearly three decades ago countries across Latin America began transitioning from highly centralized, authoritarian regimes towards relatively decentralized, democratic governments. Initially, given Latin America's history of strong-handed caudillos and closed-door politics,

researchers strongly questioned the potential longevity of democracy in the region. However, once it became apparent that the nascent democracies were not going to relapse, observers began to focus on the degree to which democratic practices were expanding beyond the electoral booth in Latin America.

Early research (O'Donnell 1998; Avritzer 2002, 2008) revealed that the quality of democratic governance is contingent on the establishment of stronger links between elite democratic norms (elections, transparency laws, checks and balances, etc.) and emerging democratic practices in the public space (participatory budgeting, communal decision making, etc.). Specifically, Avritzer (2002) revealed how the decentralization of political decision making allowed new partisan voices to institutionalize participatory practices within emerging democracies. Goldfrank (2002; 2007) and Baiocchi (2005; 2011) built on Avritzer's theoretical work by documenting the experiences of participatory budgeting in the South American countries of Uruguay, Brazil and Venezuela. As these authors demonstrate, the decentralization of resource distribution to the local level has the potential to incite greater political participation, and in some cases, more efficient governance. However, local context appears to play a crucial role in determining the eventual success or failure of experiments in decentralization. Yashar (1999) and Sabitini (2003), for example, illustrate how the inclusion of sub-national political interests in the Andean region has strained the institutional capacity of newly established governments. Romero (2002) provides a particularly candid illustration of the unintended consequences of decentralization in his work on the war-torn Colombian countryside. As he demonstrates, the transfer of decision making to the provincial level has strengthened local power brokers, including drug cartels, rebels and paramilitaries. As a result, the overall performance of democracy in Colombia has been tenuous. Taken together, these authors

demonstrate that the decentralization of political decision-making and resource allocation has the potential to incite more democratic practices and norms. However, as they make clear, an accurate account of this process requires one to carefully consider the impact of local factors. Given this, it is not surprising that authors in the region have begun to consider the manner in which diaspora communities affect efforts to consolidate democracy at the local level. This is particularly evident in the case of Mexico.

An emerging body of literature addresses the effect of migration on local and national politics in migrant-sending countries (Burgess 2005; Careja and Emmenegger 2012; Fitzgerald 2000; Fox and Bada 2008; Goldring 2002; Goodman and Hiskey 2008; Marcelli and Cornelius 2005; Rivera Salgado, 1999; M. P. Smith 2003; R. Smith 2006). Concerning emigration levels, Pérez-Armendáriz and David Crow (2010) find that connections with “relatives or friends who have migrated north greatly raises one’s proclivity toward democratic participation.” Their findings indicate that individuals living in areas with high levels of migration are more likely to participate in politics beyond the electoral booth such as civil associations and protests. Pfutze (2012), in turn, documents a link between household remittances and political change, indicating, “as remittances increase voters’ disposable income, the necessary clientelistic transfers paid in exchange for political support would need to increase as well. To the extent that the government faces budget constraints, this patronage system will become unsustainable” (2012: 173, 174). Pfutze’s findings suggest that migrants, via cash transfers and social networks, play a role in promoting electoral competition and “the improvement of democratic institutions at the local level” (174). Pfutze work is supported by Chauvet and Mercier’s research in the West-African nation of Mali, which demonstrates that migrants frequently trigger “transfers of political norms” and in this manner contribute to higher participation rates in local elections (2011: 29).

On a similar note, Batista and Vicente (2010) document evidence in Cape Verde that suggests that return migrants have a positive effect on the demand for political accountability. Like Chauvet and Mercier, they note that this effect is particularly evident among migrants who have lived in countries with relatively better governance (3). Related to this, Rother's work in the Philippines demonstrates that the effect of return migrants on local politics is often dependent on the country in which migrants resided in abroad. This finding leads the author to the conclusion that "it [is] clear that migrants are a worthwhile factor to include in the research on external factors of democratisation, diffusion, democratic consolidation and diffuse support for democracies" (2009: 274).

Regarding migrant political participation, in an article titled "Migrant Political Transnationalism and the Practice of Democracy" authors Itzigsohn and Villacres (2008) discuss the cases of the Dominican Republic and El Salvador. In the case of the Dominican Republic they find that the extension of the vote to Dominicans living in the U.S. added a transnational dynamic to the country's most recent presidential election. Nonetheless, they discover that participation levels were lower among diaspora citizens than those living on the island. This outcome is not particularly surprising but it is important in that it reveals a certain degree of civic attrition among diaspora communities. It is undoubtedly for this reason that governments with large migrant communities abroad feel the necessity to recreate a sense of duty to the motherland via expensive outreach campaigns abroad. Mexico, for example, spends a great deal of money every year in sending politicians and government officials to regions of the U.S. with large Mexican-American communities. In the case of El Salvador, Itzigsohn and Villacres analyze the role of the remittance-matching program *Unidos por la Solidaridad* in promoting community development and democratic practices. Their research reveals that while the

program has promoted relatively large development projects in communities across El Salvador, it has failed to institutionalize democratic practices. In particular, they find that migrants and state officials often dominate the discussion and implementation of projects, thus compromising the participation of community members in the projects. Similar critiques have been made of the program 3x1 para migrantes in Mexico (Fernández de Castro et al. 2006). Specifically, Aparicio and Meseguer (2009, 2011) find that in Guanajuato, and PAN dominated states in general, “...the 3 x 1 Program is being used as a political instrument to reward high-migration strongholds of the federal ruling party, PAN” (2011:30).

Taken together, the aforementioned research suggests that migrants may play a role in stimulating both economic development as well as political change within migrant-sending regions. This potential is particularly evident in the case of the program 3x1 para migrantes. Still, as Aparicio and Meseguer reveal, much depends on precisely how practices within the 3x1 program actually intersect with politics and development outcomes “on the ground” in Mexico. In what remains of this chapter I hope to provide a more nuanced depiction of this process in the case of Guanajuato.

Data and Methodology

Table 4.1 illustrates the panel data used in this chapter. As the far right column indicates, data was collected from a variety of sources. The principal variable of interest, 3x1 investments, is based on program investment patterns logged by SEDESHU. Investments are recorded for each contributing party, including: migrants and the federal, state and municipal levels of government. Based on this information I create the dependent variables: *3x1 Ratio* and *3x1 per Capita*. The variable 3x1 Ratio is simply the sum of government contributions made towards projects within a given *municipio* divided by migrant contributions. In theory this ratio should

always be three but as I demonstrate below, in practice the ratio varies a great deal from year to year and *municipio* to *municipio*. In addition, to account for population differences across *municipios*, census data was gathered from the National Institute of Statistics and Geography (INEGI).¹⁷ This information is used to create the variable 3x1 per capita, which is the total amount of 3x1 investments made in each respective *municipio* divided by the *municipio*'s population. Similar to GDP per capita, 3x1 per Capita provides a more accurate means of comparing 3x1 investments across *municipios*. Finally, the dependent variables *Electoral Participation* and *Electoral Competition* are generated in order to evaluate the relationship between 3x1 investments and election trends. Data for these two variables come from the organization Proposals to Change Mexico (CIDAC) and the Federal Electoral Institute (IFE). Electoral participation is simply a measure of the percentage of eligible voters that turn out to vote in elections. In Mexico elections are held every three years and therefore for the period 2002 to 2011 there are only data points for the years 2003, 2006 and 2009. Electoral competition, in turn, is measured by the Nb index for party competition, which was designed by Dunleavy and Boucek in 2003.¹⁸

The Nb index is expressed in the following manner:

$$Nb = \left(\frac{1}{\sum_1^x Vi^2} + \frac{1}{V_1} \right) \times \frac{1}{2}$$

where V_i denotes the percentage share of the votes going to each competing party i , and the notation above and below the summation sign shows that it covers all parties from the largest (V_1) to the smallest (V_x). The index also includes a basic measure of party predominance ($1/V_1$),

¹⁷ Census data is available for the years 2000 and 2010. Statistic estimation is used to fill in missing variables.

¹⁸ The Nb index is one of many indexes currently in use in the social sciences. In the case of Mexico, the Molinar index is most commonly used by the Mexican government to measure electoral competition. Still, given the context of this study, I believe that the Nb index provides the least idiosyncratic measure of electoral competition. For a full description of the advantages of the Nb index, please see Patrick Dunleavy and Françoise Boucek's 2003 article, "Constructing the Number of Parties" published in *Party Politics*, 9(3) pp. 291–315.

which lowers maximum scores and produces an index that is ready for interpretation. Thus, Nb is equal to one divided by the sum of the squared decimal shares of the vote for (or seats won by) each party plus one divided by the decimal share of the vote captured by the winning party times one-half (Dunleavy and Boucek 2003: 293, 303). The Nb index is calculable for all of Guanajuato's *municipios* during the period 2002-2011, and most importantly, it provides a reliable measure for democracy's most basic yardstick: competitive elections. An example helps clarify the utility of the Nb index.

In 2009 in the *municipio* of Abasolo PRI won the municipal presidency with 54 percent of the vote. The closest competitor was PAN, which finished with 36 percent of the vote, followed by PRD with 3 percent, CONV with 2 percent, PT with 2 percent and NA with 1 percent. The remaining 2 percent of the vote was annulled. Thus, for the 2009 election cycle, Abasolo's Nb score is equal to 2.11 or

$$2.11 = Nb_{Abasolo} = \left(\frac{1}{(.54^2 + .36^2 + .03^2 + .02^2 + .02^2 + .01^2)} + \frac{1}{.54} \right) \times \frac{1}{2}$$

In comparison, in the same election PAN won the *municipio* of Xichú with 38.9 percent of the vote. PRI finished a very close second with 38.7 percent and PRD captured 22 percent of the vote. Just under 1 percent of the final vote was annulled. Xichú's Nb index score for 2009 is equal to 2.79 or

$$2.79 = Nb_{Xichú} = \left(\frac{1}{(.389^2 + .387^2 + .22^2)} + \frac{1}{.38} \right) \times \frac{1}{2}$$

As the case of Abosolo and Xichú illustrate, the Nb index assigns a higher score to *municipios* that have relatively more competition between parties. Moreover, the formula accounts for *municipios* that have overwhelmingly dominant parties by assigning them relatively lower index

scores. For example, in the case of Abosolo only two competing parties had a chance at winning the municipal presidency, whereas in Xichú three parties strongly competed for the municipal office.

Table 4.1 Definitions and Description of Variables Included in Regression Analysis

Variable	Mean	S.D.	Data Source
Total 3x1 ¹	2,230,387	3,904,751	SEDESHU
3x1 Ratio	3.02	.91	SEDESHU
3x1 per Capita	42.68	74.	SEDESHU; INEGI
Electoral Part. ²	51.34	7.21	CIDAC; IFE
Electoral Competition	2.98	.87	CIDAC; IFE
% Homes Remittances ³	13.29	6.69	CONAPO
% Homes Return Migrants	4.67	2.33	CONAPO
% Homes Migrants	10.63	5.34	CONAPO
Municipal Party	.39	.48	CIDAC
Municipal Population (rural = 1; urban = 0)	.45	.49	INEGI
Election Year (2003, 2006, 2009)	--	--	IFE
Human Development Index (HDI)	.77	.05	INEGI; SNIM
Public Work Spending per Capita	923.96	1031.09	SNIM; INEGI

Source: CIDAC, CONAPO, IFE, INEGI, SEDESHU and SNIM.

¹Figures in Mexican Pesos.

²Total 3x1, 3x1 Ratio, 3x1 per Capita, Municipal Party, Rural-Urban and Public Work Spending per Capita reported for years 2000-2011.

³Electoral participation and Electoral Competition reported for year 2003, 2006 and 2009.

⁴% Home Remittances, % Homes Return Migrants and Social Marginalization reported for years 2000, 2005 and 2010. Statistical estimation used to fill in missing variables.

Concerning independent variables, the variable *% Homes Remittances* represents the percentage of homes in a given *municipio* that receive migrant remittances. In turn, the variable *% of Homes Return Migrants* measures the percentage of homes that had a migrant that returned to Mexico during the last census and stayed. The variable *% Homes Migrants* measures the percentage of homes with migrants for each respective *municipio*. Data for these variables was collected from the National Population Council (CONAPO). In addition, the independent variable *Municipal Party* is created to account for political party differences across *municipios* and as

means of analyzing potential relationships between political parties and 3x1 investment patterns. The variable is constructed as a dummy variable, such that PAN = 0 and other parties = 1. This variable is coded as a dummy due to the fact that during the period under analysis PAN controlled over 60 percent of the state's municipal presidencies. PRI, in turn, controlled nearly 30 percent. Moreover, my main interest in this particular variable is in measuring the degree to which PAN has controlled 3x1 projects over the program's first ten years. With this purpose in mind, a dummy variable will lend to easier interpretation of the regression coefficients. The coding of this variable is such that each *municipio* is assigned the party that corresponds to its municipal president during the year in question. The variable is calculated based on information provided by CIDAC. The variable *Rural-Urban* is generated in order to control for population differences across *municipios*. A *municipio* was marked as "rural" if the total population is less than 50,000 inhabitants and "urban" if the population is greater than 50,000. The variable *Election Year* is a dummy variable (1 = election year; 0 = non-election year) that allows for the evaluation of any potential relationship between 3x1 investment patterns and election cycles.¹⁹ The variable *Human Development Index* (HDI) is included in order to examine the degree to which 3x1 investments are allocated based on levels of municipal development. The variable ranges from 0 to 1, such that the least developed *municipios* fall closer to 0 and the most developed *municipios* fall closer to 1. (For a more in-depth introduction to the individual measures included in this index please see Annex 8.) Data for this variable comes from the National System of Municipal Information (SNIM) and INEGI. Finally, in order to control for municipal spending on public works projects, the variable *Public Work Spending per Capita* is included. This variable measures the amount of money *municipios* spend per capita on public works projects in a given year. Data for

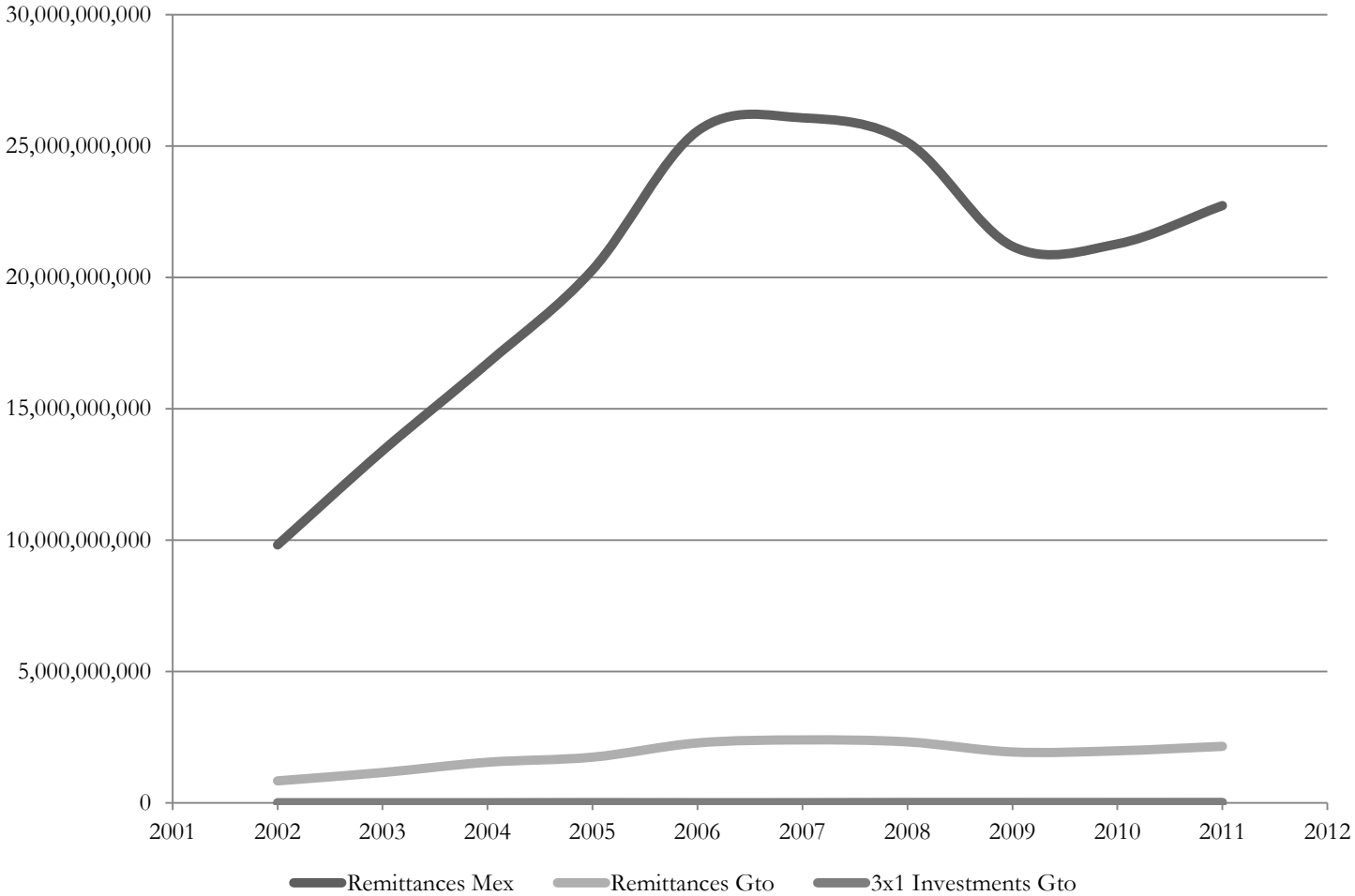
¹⁹During the period 2002-2011 elections fell in the years 2003, 2006 and 2009.

this variable comes from SNIM and INEGI. Taken together, the descriptive statistics outlined in Table 4.1 suggest several associations of interest. (For additional descriptive statistics concerning this section please see Appendices 1-6.) In the pages that follow I present a series of graphs and tables that examine these variables in more detail. I begin by taking a closer look at 3x1 investments in relation to overall household remittances.

Descriptive Statistics of 3x1 Investment Patterns

Graph 4.1 illustrates household remittances in Mexico and Guanajuato alongside 3x1 investments in Guanajuato since 2002. Total remittances in Mexico have gone up considerably over the last ten years. In turn, household remittances in Guanajuato have experienced a more moderate increase. Still, during this period, on average the state of Guanajuato received 9 percent of the total remittances flowing into Mexico, second only to the state of Michoacán. Finally, as is evident, 3x1 investments make up a very small percentage of total remittances in Guanajuato. In fact, 3x1 transfers in Guanajuato—including government contributions—represent less than 1 percent of total remittances across the state. Nonetheless, as I explain below, the importance of 3x1 investments across Guanajuato should not be taken lightly.

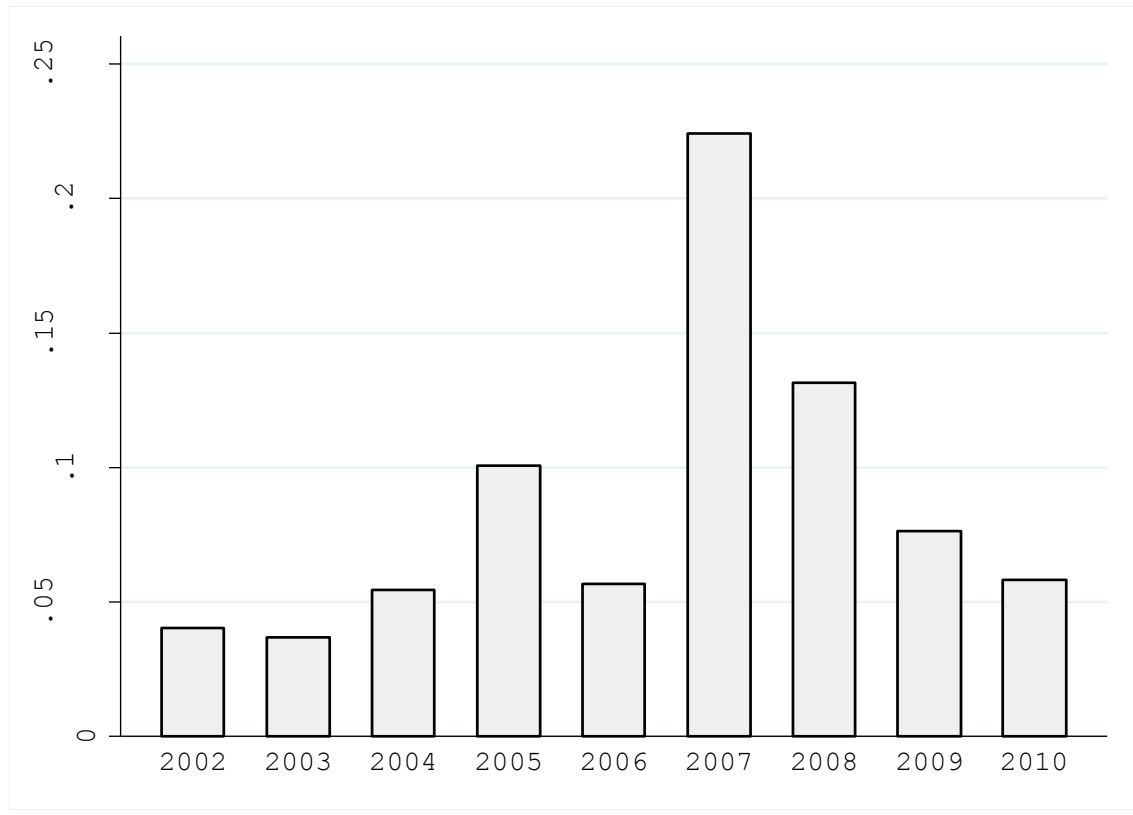
Graph 4.1 3x1 Investments Compared with Household Remittances



Source: Banco del Mexico; Totals are reported in U.S dollars. US\$1=12.76 Pesos.

Graph 4.1 from above may leave the reader with the impression that 3x1 investments are so miniscule that they could hardly be thought to have an impact on development in the state of Guanajuato. However, if one considers 3x1 investments in relation to municipal budgets, the program's overall impact becomes more tangible. Graph 4.2 displays the ratio between 3x1 per capita and public works spending per capita for the period 2002 to 2010 in the state of Guanajuato. Given the fact that the overwhelming majority of 3x1 projects are dedicated to public works projects, this becomes a very useful comparison. As the reader can see, the ratio changes from year to year, ranging from less than five percent to over twenty percent. For example, in 2007 3x1 projects comprised over twenty percent of municipal funds allotted to public works projects across Guanajuato's 46 *municipios*. With this in mind, it becomes easy to comprehend the potential impact of 3x1 investments in *municipios* that have relatively low budgets to begin with. For a political leader, 3x1 funds may represent the margin of flexibility to be able to show impact and initiative to their constituents. This is particularly likely for leaders operating in rural, less developed *municipios*. In turn, from the community's standpoint, the 3x1 framework presents local citizens with an opportunity to participate in the allocation of public resources and thus a way to gain leverage over their own economic and social situation.

Graph 4.2 Ratio of 3x1 per Capita and Public Works Spending per Capita



Source: SEDESOL; SNIM.

Table 4.2 compares remittances at the national and state level with 3x1 investments in Guanajuato over the period 2002-2011. As is evident, 3x1 investments have increased rapidly over the program's first ten years of operation. As of 2011, program investments in Guanajuato were up 422 percent from the program's inaugural year in 2002. In fact, 3x1 investments in Guanajuato have increased at a faster rate than both overall household remittances flowing into Mexico (131 percent) and Guanajuato (157 percent), respectively.

Table 4.2 Total Remittances Compared with 3x1 Investments (U.S. dollars)

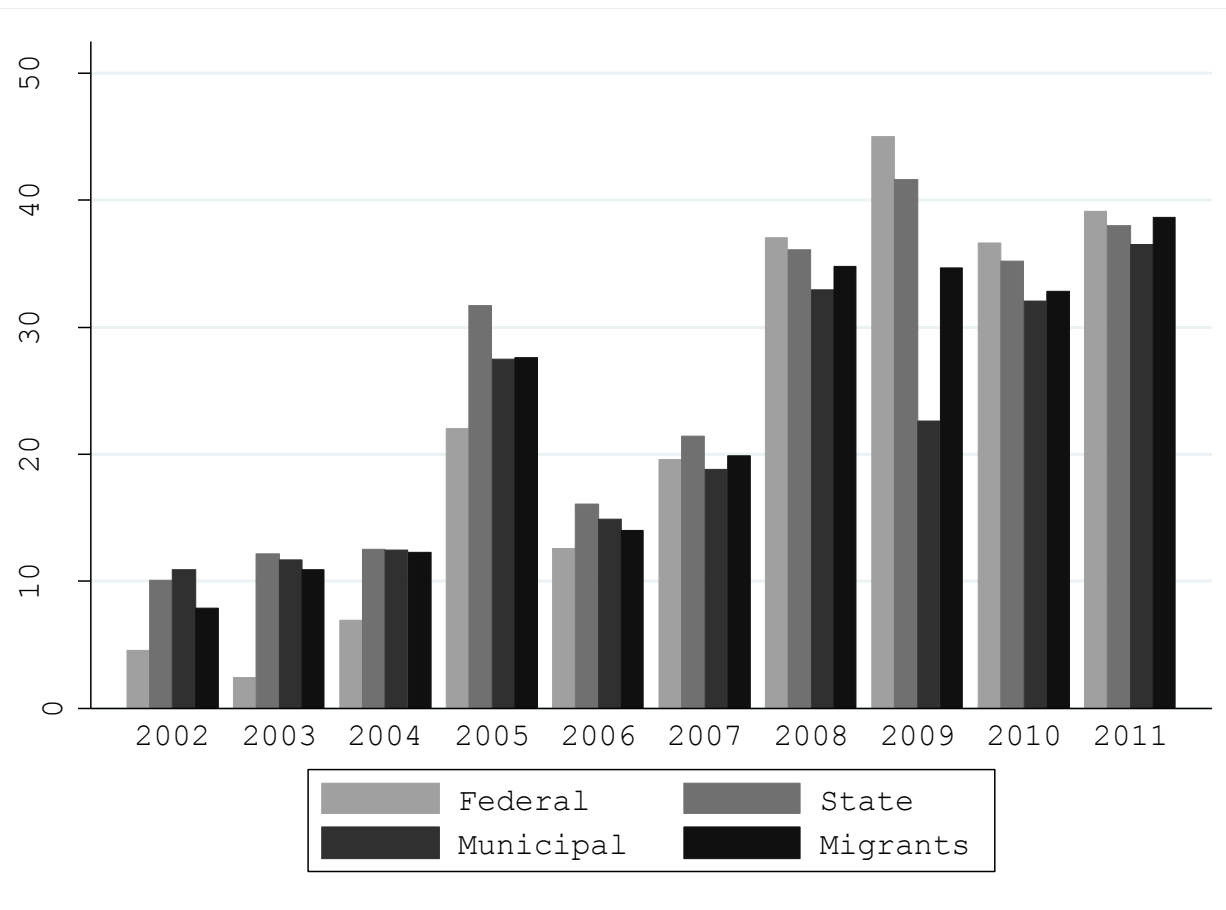
Year	National (Remittances)	Guanajuato (Remittances)	Guanajuato (Total 3x1)
2002	9,814,000,000	834,190,000	2,651,464
2003	13,396,000,000	1,152,056,000	2,839,425
2004	16,730,000,000	1,542,506,000	3,458,140
2005	20,284,000,000	1,736,310,400	8,360,074
2006	25,567,000,000	2,278,019,700	4,967,822
2007	26,069,000,000	2,393,134,200	6,462,719
2008	25,137,000,000	2,317,631,400	11,721,445
2009	21,181,000,000	1,933,825,300	11,894,187
2010	21,271,000,000	1,978,203,000	11,735,866
2011	22,730,000,000	2,147,985,000	13,853,577
Total	202,179,000,000	18,313,861,000	77,944,719

Source: Banco de Mexico; SEDESOL. Figures converted to U.S. dollars at an exchange rate of US\$1=12.76 Pesos.

A deeper understanding of the rapid expansion of the 3x1 program over the last decade requires one to analyze the factors that have underpinned the programs growth. A natural starting point for this analysis is to take a closer look at the individual parties contributing to 3x1 projects. In theory, the 3x1 para migrantes program implies that the federal, state and municipal branches of government each contribute equal amounts to development projects initiated by migrants. Therefore, by default, one would expect that 3x1 investments across *municipios* reflect a consistent investment ratio between the government and migrants of three to one. However, as Graph 4.3 illustrates, 3x1 contributions vary a great deal across the four participating entities. For example, as Graph 4.3 reveals, in 2002 the state and municipal branches of government contributed far more to 3x1 projects than migrants. The federal government, in turn, contributed less than each of its counterparts. Interestingly, this pattern shifts when we consider 3x1 investments from 2003, an electoral year. As the graph reveals, in 2003 the state contributed

the most to 3x1 projects, followed by individual *municipios*, migrants and the federal government, respectively. Similar irregularities are evident in subsequent years. The unequal investment trends illustrated in Graph 4.3 suggest that project funding may be defined by factors other than the stipulations outlined in the 3x1 program's bylaws. This pattern coincides with previous research on the 3x1 program that concludes that program investments are driven by local factors such as political ambitions (Aparicio and Meseguer 2011).

Graph 4.3 3x1 per Capita Investment Pattern 2002-2011 (in millions of pesos)



Source: SEDESOL.

Note: Amounts in Mexican pesos. Totals are reported in Mexican pesos. US\$1=12.76 Pesos.

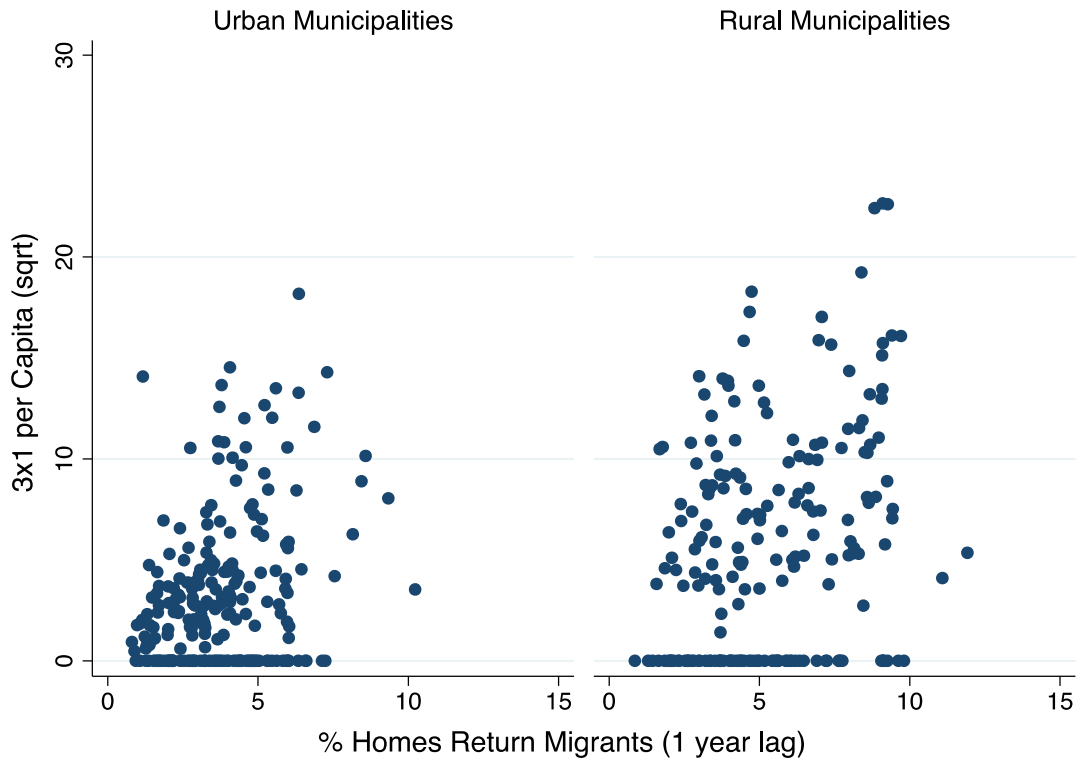
To be sure, multiple factors likely influence the fluctuation of 3x1 investments from year to year. However, as the cases studies outlined in Chapter 3 reveal, two aspects appear to stand out: (1) migrant networks and (2) political incentives.

Concerning migrants networks, it is evident the individuals that are most active in communal development are those who return frequently to their hometowns and maintain close ties with friends and family in Mexico. Pedro, for example, pointed out that when he began planning the first 3x1 project it was very difficult to raise money. When I inquired as to why, he said that there were two main barriers that he faced. First, many of his fellow migrants did not trust that he would follow through with the project. Second, he found that many of his fellow *paisanos* did not return frequently enough to Ojo de Agua to care about the town's future. For these reasons, the majority of donations for the first project were collected from people he or his family knew well and from those that returned frequently to his hometown. In contrast, as Pedro noted, subsequent projects were far easier to organize due to the fact that potential donors now trusted him with their money and thus they were more willing to contribute to future development projects. In this sense, the strength of transnational social networks appears to play a key role in explaining where projects arise and whether or not subsequent projects materialize. Second, regarding political incentives, in each of the three cases outlined in Chapter 3 the state was the party that initiated contact with the migrants and not the other way around. In fact, in the case of Ojo de Agua, Pedro initially expressed a great deal of mistrust in the government. Similarly, in the case of El Timbinal, Don Angel was quite clear in pointing out that the government reached out to him and that at no point did he search out assistance from the state. It appears, thus, that political incentives may also play an important role in driving 3x1 investment patterns.

Although limited to specific experiences, the aforementioned cases suggest that migrant social networks and state outreach play a fundamental role in dictating the timing and scope of 3x1 para migrantes projects in Guanajuato. In the space that follows I take a closer look at both of these factors.

One way to measure for the strength of migrant social networks is through the percentage of return migrants in a given *municipio*. Return migrants do not necessarily imply organization amongst migrants; however, my fieldwork indicates that they are a strong proxy for the strength of transnational migrants networks. In each of the migrant hometowns I visited I found that 3x1 projects hinged in part on the synergy between migrants in the U.S. and former migrants currently residing in Mexico. To this end, it is also worth pointing out that state officials that I interviewed also brought up the importance of return migrants, suggesting that former migrants brought back ideas from the U.S. about what would help their town develop. Moreover, in the cases I was able to observe it was evident that return migrants frequently participated in the 3x1 project planning committees and in this respect assisted a great deal in targeting projects towards the particular needs of their communities. Graph 4.4 provides a visual depiction of this transnational link. As is evident, 3x1 per capita is highest in *municipios* with relatively more return migrants. This trend is apparent in urban and rural *municipios* alike but it is particularly apparent in the latter. This finding suggests that return migrants may in fact play an important role in the 3x1 program. It also implies, however, that the program has the potential to bring migrants back into the political fold by involving them in local development projects. (I address both of these issues at length in the discussion section of this chapter.)

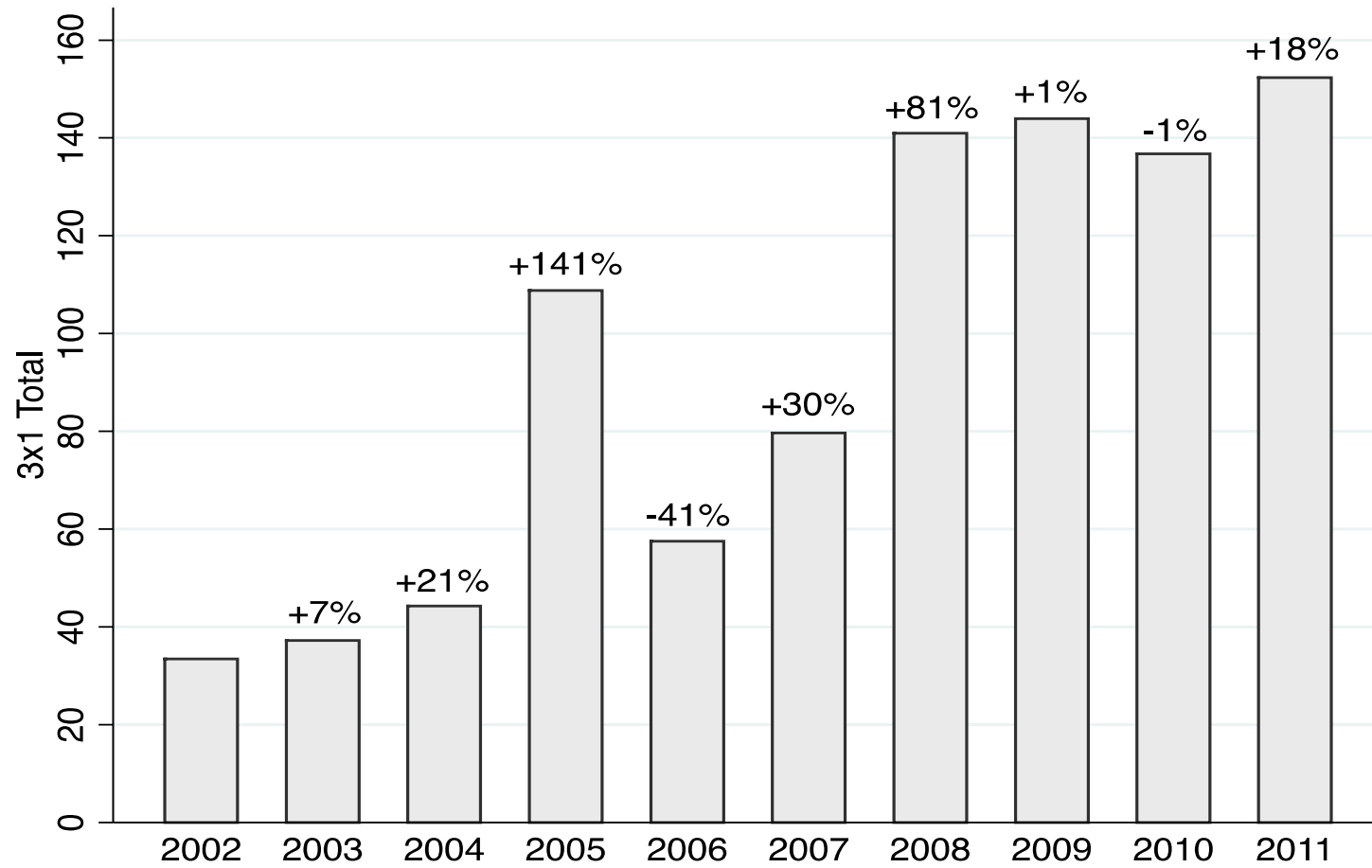
Graph 4.4 % of Homes with Return Migrants by 3x1 Investments



Source: Author; data from SEDESOL, CONAPO.

As mentioned above, in addition to migrant networks, it is apparent that political incentives may also play a key role in the timing of 3x1 investments. Related to this, Graph 4.5 illustrates the growth of total 3x1 investments during the program's first ten years in the state of Guanajuato. The percentage increase or decrease in program investments relative to the previous year is also reported. As the reader will note, program investments tended to increase the most in the pre-electoral years 2005, 2008 and 2011. These trends suggest that the timing of 3x1 investments may in part be determined by electoral cycles. (For more in-depth breakdown of 3x1 investment patterns by year and contributing party please see Appendix 2.)

Graph 4.5 Total 3x1 Investments 2002-2011 (in millions of pesos)



Source: SEDESOL.

Note: Totals are reported in Mexican pesos. US\$1=12.76 Pesos.

The suggestion that 3x1 investments are strategically planned to coincide with pre-election years implies that government officials may intentionally delay 3x1 investments during their first two years of office in order to stack as many projects as possible in their third and final year in office. In principle, this would bode particularly well for the municipal president's party, which could use recently christened 3x1 projects as evidence of their commitment to constituents.²⁰

If political objectives play a role in determining 3x1 investment patterns across *municipios* in Guanajuato one might wonder whether or not any particular party is favored in the process. For example, in an early analysis of the 3x1 program Aparicio and Meseguer concluded that from 2002 through 2006 "municipalities ruled by the PAN are indeed more likely to participate in the program" (2009:17). However, the evidence outlined in Table 4.3 refutes this notion. The table depicts mean 3x1 investments across *municipios* by ruling political party. In addition, in parenthesis the table reports 3x1 per capita for each fiscal year. For the period 2002-2011 average 3x1 investments and 3x1 per capita were substantially higher in the pre-election years 2005, 2008 and 2011. This pattern is evident for all parties. Still, for this particular period, there is little evidence to support the hypothesis that the leading political party in the state, PAN, was favored in the disbursement of 3x1 funds. For example, relative to Guanajuato's second principal party, PRI, during this period the PAN logged lower average 3x1 investments (2,082,219 pesos) and a lower 3x1 per capita (39). On the other hand, parvenu parties averaged relatively higher 3x1 investments and 3x1 per capita levels. Still, it is important to keep in mind

²⁰Here it is important to note that in Mexico politicians' ultimate allegiance pertains to their party. In fact, it is common knowledge in Mexico that a politician's career depends in large part on his or her devotion to the party and thus to do well by the party is to do well by ones self. This is particularly true in the case of municipal presidents who cannot be elected to consecutive terms and thus rely on the structure of the party to secure the future of their career. For more information regarding the political culture of Mexican politics please see: Wayne A. Cornelius and A. L. Craig book *The Mexican political system in transition* (1991). Specifically, see Chapter 4: Political Structure and Institutions and Chapter 8: Political Culture and Socialization.

that PAN and PRI captured the vast majority of municipal presidencies during this period and thus the results for these two parties best reflect general investment trends. Taken together, Table 4.3 demonstrates that while there is initial evidence that the 3x1 program may be employed as a means of rounding up electoral support leading into election years, it does not appear that any one party has a monopoly over such practices.

Table 4.3 Average 3x1 Investments 2002-2011 by Political Party of Municipal President

Average 3x1 Investment by Year (Average 3x1 per Capita in Parenthesis)											
Party	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
PAN	1,077,387 (18)	1,095,676 (21)	1,223,173 (24)	2,649,191 (45)	1,227,148 (27)	1,776,201 (28)	3,739,155 (78)	2,979,497 (58)	2,560,921 (48)	2,174,252 (40)	2,082,219 (39)
PRI	430,590 (22)	1,573,945 (12)	938,180 (40)	2,660,877 (97)	333,477 (5)	1,653,568 (27)	2,551,057 (44)	3,706,097 (56)	3,694,474 (79)	6,427,314 (86)	2,318,407 (48)
PRD	100,000 (1)		70,996 (.53)	687,313 (11)	3,365,105 (513)	1,192,000 (181)	1,514,489 (229)	5,998,463 (47)	12,200,000 (88)	703,155 (6)	2,408,992 (65)
PVEM		1,356,790 (29)	1,729,239 (27)	4,706,546 (80)	6,557,872 (105)	4,254,391 (63)	286,032 (5)	10,200,000 (144)		12,600,000 (176)	4,035,994 (63)
PCD	596,155 (28)	695,754 (10)	588,601 (8)	1,244,384 (18)							807,662 (16)
PT		441,618 (13)						560,656 (28)	1,233,036 (61)	2,479,394 (122)	673,529 (32)
CONV									174,133 (7)		58,044 (2)
Avg	777,407 (18)	865,315 (17)	1,028,833 (25)	2,530,216 (59)	1,337,761 (37)	1,852,212 (33)	3,278,136 (68)	3,347,030 (57)	3,179,841 (57)	3,461,936 (55)	2,168,876 (45)

Source: Author, with data from SEDESOL and CIDAC.

Note: Pre-election years highlighted in gray; figures in parenthesis represent the total number of projects for each party for that particular year. PC, PDM and PARM did not carry out any 3x1 projects during the period 2002-2011.

Another way of looking at program investments is by tabulating the percentage of 3x1 projects controlled by each respective party during the period 2002-2011. Table 4.4 displays the percentage of *municipios* headed by each respective party. In addition, in parenthesis, each *municipio's* respective percentage of 3x1 projects is listed. In 2011, PAN held 61 percent of the state's *municipios*. In turn, 3x1 projects carried out in PAN-headed *municipios* represented only 44 percent of the 3x1 program's total projects for the fiscal year 2011. In comparison, in the same year PRI held 28 percent of the state's *municipios* and those *municipios* received 50 percent of all 3x1 projects in 2011. In all, from 2002 to 2011, on average PAN governed 61 percent of the state's *municipios* and received 64 percent of all 3x1 projects. In turn, PRI held an average of 27 percent of municipal presidencies and those *municipios* received an average of 26 percent of all 3x1 projects. In turn, PRD held an average of 5 percent of municipal presidencies but only received an average of 2 percent of all 3x1 projects for the period. PVEM, on the other hand, held 3 percent of municipal presidencies but those *municipios* received 5 percent of all 3x1 projects. Thus, although year-to-year patterns fluctuate considerably, if we aggregate data over the first ten years of the 3x1 program there is a clear pattern between the percentage of municipal presidencies held by each party and the number of 3x1 projects carried out in each party's respective *municipios*. Put simply, overall, there appears to be little association between any one particular party and 3x1 investment patterns. This finding contrasts with Aparicio and Meseguer, who contend that in Guanajuato, and PAN dominated states in general, "...the 3 x 1 Program is being used as a political instrument to reward high-migration strongholds of the federal ruling party, PAN" (2011:30). Rather, these results, which benefit from more program years and thus data points, demonstrate that over the first ten years of the program, all *municipios*, regardless of partisanship, were able to channel investment projects through the 3x1 program.

Thus, although there appears to be a clear effort by all parties to increase 3x1 investments in pre-election years, at this point there is no clear evidence suggesting that the 3x1 program is stacked in favor of one party or another.

Table 4.4 Comparison of Respective Party's % of 3x1 Projects With % of Municipal Presidencies

Party's Percentage of Municipal Presidencies (total % of 3x1 projects in parentheses)											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
PAN	58% (79%)	52% (61%)	52% (50%)	52% (52%)	74% (48%)	74% (76%)	74% (86%)	61% (87%)	61% (52%)	61% (44%)	61% (64%)
PRI	30% (18%)	30% (28%)	30% (33%)	30% (33%)	20% (37%)	20% (11%)	20% (13%)	28% (1%)	28% (38%)	28% (50%)	27% (26%)
PRD	7% (2%)	7% (2%)	7% (2%)	7% (2%)	2% (2%)	2% (5%)	2% (1%)	4% (.5%)	4% (6%)	4% (1%)	5% (2%)
PVEM		4%	4% (15%)	4% (7%)	4% (9.3%)	4% (9%)	4% (.4%)	2% (3%)	2%	2% (2%)	3% (5%)
Total Projects	99	87	102	240	139	168	221	179	144	175	1554

Source: Author, with data from SEDESOL and CIDAC.

Note: Pre-election years highlighted in gray; figures in parenthesis represent the total percentage of projects for each party for that particular year.

To a certain degree, the previous findings show the 3x1 program in a favorable light in so much that they suggest that the state government, which has been run by a PAN governor for the whole existence of the 3x1 program, does not distribute 3x1 resources in a way that overtly favors *municipios* run by PAN presidents. Still, the fact that the 3x1 program clearly stacks development projects such that more projects are carried out in pre-election years demonstrates that government officials wield control over the timing of development projects run through the program. This finding does not necessarily mean that 3x1 investments have a negative impact on development outcomes nor does it conclusively illustrate mechanisms of political patronage. However, it does draw into question the degree to which 3x1 investment decisions are made based on local demand and development needs alone.

The descriptive statistics presented above suggest a number of hypotheses worth submitting to further scrutiny:

- 1) 3x1 investments are more elevated in *municipios* with relatively higher levels of household remittances.
 - i. This hypothesis relates to the expectation that 3x1 projects are more likely to emerge in areas where migrants already demonstrate a high level of commitment to their friends and family in the form of cash transfers.
- 2) 3x1 investments will share a positive relationship with return migrants.
 - i. It is expected that migrants that have returned from the U.S. to live in Mexico may potentially improve communication between migrants in the U.S. and hometown communities. These transnational links, in turn, would be expected to facilitate 3x1 projects.
- 3) 3x1 investments will be higher in those *municipios* that are most affected by migration.
 - i. This expectation relates to the fact that projects are at least partially driven by migrants, and therefore, one would expect that the majority of 3x1 investments would take place in *municipios* reporting relatively high levels of emigration.

- 4) All things being equal, more 3x1 investments will be made in the least developed *municipios*.
 - i. This hypothesis addresses the explicit goal of the 3x1 program to target the state's most marginalized communities and *municipios*. Moreover, migrants have traditionally emerged from underdeveloped, rural areas and thus it is expected that these same regions would be the most likely to carry out 3x1 projects.
- 5) 3x1 investments are at least in part influenced by election cycles, such that substantially more projects are funded in pre-election years.²¹
 - i. In theory 3x1 investments are a product of local demand within migrant hometown communities. That said, given the high level of state participation in this particular program it is also expected that investment trends will share a relationship with local election cycles. This hypothesis is grounded in the expectation that political parties may see the 3x1 program as a means through which to garner political support.
- 6) 3x1 investments share a positive relationship with electoral participation.
 - i. Over the last ten years 3x1 investments have come to represent an important source of funding for local infrastructure projects in the state of Guanajuato, leading to visible development gains in participating *municipios*. Moreover, the 3x1 program provides local citizens with an avenue through which to participate in the distribution of public resources. Given this, one might expect that civic participation in elections would increase in *municipios* with more 3x1 projects.
- 7) 3x1 investments at first contribute to political competition amongst parties but in time, as development improves, contribute to political consolidation.
 - i. This hypothesis is grounded in the expectation that the opportunity to participate in the distribution of public resources will at first incite political alternatives in the form of parvenu parties. Thus, electoral competition between parties is expected to first increase before eventually dropping off as meaningful development takes place and successful parties establish stable constituencies. Given this, it is expected that the relationship between 3x1 investments and electoral competition will be quadratic.

²¹From a political standpoint this tendency would be ideal due to the fact that municipal elections fall every three years. Thus, the parties of municipal presidents would have the most to gain from investments made in the year prior to the election itself. Given that elections are held in July in Mexico, this would assure that the municipal president currently in office would be able to inaugurate any remaining projects prior to the election the following year.

8) No one political party shares a competitive advantage over the distribution of 3x1 project funds.

- i. This hypothesis challenges the notion the 3x1 program is stacked in favor of the state's dominant party, PAN. Rather, it is expected that in practice the 3x1 framework is impartial to individual political parties.

In the space that follows I submit the aforementioned hypotheses to the rigor of multiple regression analysis:

Regression Analysis on Select Dependent Variables

In this section I examine 3x1 investments via multiple regression analysis. The data set used here, which I described at length above, consists of multiple observations across Guanajuato's 46 municipalities at ten distinct points in time (2002-2011). Specifically, I use fixed effects models to estimate the effect of independent variables on select dependent variables. In order to evaluate model-data compatibility I run a Hausman test for each individual regression model presented in this study. The Hausman test weights the preferred model, random effects (RE), against the alternative model, fixed effects (FE). The test analyzes the degree to which unique errors (UI) correlate with the individual regressors. The null hypothesis is that UI are uncorrelated with independent variables. Concerning the present study, the Hausman test indicates that FE is the best model for my data, thus throughout this study I run regressions exclusively in FE. As a model, FE treats explanatory variables as if they were non-random and imposes time-independent effects for each measure that could potentially correlate with the regressors. Related to this, FE models aid in controlling for unobserved heterogeneity in panel data, especially when observations are constant over time (Greene 2000:576). Put simply, fixed effects models are most useful when one suspects that dependent variables are associated with independent variables that are not observable but that correlate with observed explanatory variables. When such

omitted variables are consistent over time, which they are here, fixed effects models allow for a consistent estimate of the effect of observed independent variables.

Previous researchers of the 3x1 program (Aparicio and Meseguer 2011) use total 3x1 investments in their quantitative analysis. I expand on this work by employing three distinct measures of 3x1 investments, including: total 3x1 investment amounts, 3x1 per capita and 3x1 ratio. Each respective measure allows for a slightly distinct assessment of the program. Regression on total 3x1 investments, for example, provides the reader with a more intuitive means through which to consider the relative importance of regression coefficients. 3x1 per capita, in turn, is a better measure than total investment logs to compare across *municipios* due to the fact that it takes into consideration the population size of individual *municipios*. Finally, the 3x1 ratio allows for the reader to gauge the conditions under which migrants receive more or less support from the government. In general, I believe that when taken together these three measures provide a more complete understanding of the 3x1 program. It is for that reason that I include each of them in the analysis that follows.

Table 4.5 analyzes the impact of select independent variables on total 3x1 investments. χ^2 tests show that regressions are significant across all four models. I run fixed-effects, least squares estimations in order to determine the effect of a number of variables upon total 3x1 investments across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$Total\ 3x1_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term. The dependent variable is *Total 3x1*, and the vector x_{it} includes the independent variables discussed below.

The coefficient for *% Homes with remittances* is significant in models II, III and IV, indicating that the percentage of homes receiving migrant remittances has a significant and positive effect on the total amount of 3x1 investments in a given *municipio*. In fact, for every one percent increase in household remittances, total municipal 3x1 investments increase \$563,813 pesos or roughly \$44,185 U.S. dollars. This finding is to be expected given the fact that one would anticipate 3x1 investments to increase in *municipios* with relatively higher rates of remittances. The percentage of return migrants in a given *municipio* also has a strong positive effect on 3x1 investments, such that for every one percent increase in return migrants 3x1 investments rise \$1,289,812 pesos or roughly \$101,082 U.S. dollars. This discovery, considered alongside the previous finding, suggests that transnational social networks play a more important role in underpinning 3x1 investments than raw remittances alone. In contrast, the percentage of migrants living in a given *municipio* shares a strong negative relationship with 3x1 per capita, such that for every one percent increase in this variable 3x1 per capita falls by 5,660,144 pesos or 443,584 U.S. dollars. This results likely stems from the fact that at early stages of migration individuals who have left to the U.S. lack the capital necessary to participate in 3x1 projects. In addition, all models demonstrate the importance of election cycles in determining the timing of 3x1 investments. As model V shows, for example, in pre-election years the total amount of 3x1 investments increases a little more than \$834,981 pesos or roughly \$65,437 U.S. dollars. This finding implies that for any given *municipio* investments made through the 3x1 program may at least partially hinge on the preferences of the party currently occupying the municipal presidency. That said, the variable for political party does not report significance in any of the four models outlined below, thus indicating that no one political party shares any inherent advantage in the 3x1 framework.

The variables HDI and HDI Squared are also included to control for shifts in 3x1 investments across different levels of development. As model V indicates, 3x1 investments appear to initially fall in *municipios* with low levels of development before increasing substantially in *municipios* with relatively better human development levels. A thorough review of descriptive data indicates that investment trends are slightly bimodal with modes at HDI levels of .65 and .8, respectively. The twin-peak distribution of 3x1 projects implies that investments are less common in extremely marginalized rural *municipios* as well as in highly developed urban *municipios*. Put differently, 3x1 investments are most prevalent in more developed rural *municipios* as well as less developed urban *municipios*. Finally, a variable for municipal population is included in order to control for population differences across *municipios*. The variable indicates that 3x1 capita increases substantially in rural *municipios* (population < 50,000) relative to urban *municipios* (population > 50,000).

Table 4.5 Regression Analysis of 3x1 Total (All Parties)

3x1 Total	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
% Homes with remittances (1 year lag)	604207.5*** (121015.9)	552231.6*** (126219.8)	539376.2*** (128042.1)	563813.3*** (563813.3)
% Homes with return migrants (1 year lag)	1396083*** (168031.6)	1529154*** (181073.8)	1435859*** (272982.4)	1289812*** (268858.2)
% Homes with Migrants (1 year lag)	-6823922 *** (1036647)	-6671432*** (1093151)	-6428408*** (1185825)	-5660144*** (1191335)
Election Year (1 year lead)	-- (--)	768750.3** (303497.2)	783971** (304875.3)	834981.8** (297996.2)
Municipal Party (1 year lag)	-- (--)	-- (--)	214909.3 (349179.4)	198927.8 (342474.3)
HDI	-- (--)	-- (--)	-6001545 (11800000)	-375000000*** (107000000)
HDI Squared	-- (--)	-- (--)	-- (--)	253000000*** (69800000)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	5066465 (1988231)
Constant	-701840.2 (1186580)	-4123913*** (1261126)	-4221679*** (1272977)	-131000000*** (40900000)
R ²	.06	.17	.18	.22
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	387	387	387	387

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

*p<.1 *p<.05 **p<.01 ***p<.001

Regarding the aforementioned findings, the distribution of 3x1 investments across *municipios* likely relates to two factors: (1) migrant demand for projects and (2) government planning. Regarding the former, in general migrants participating in the 3x1 program tend to be well-established individuals who have been in the U.S. for decades. Younger immigrants, on the other hand, lack the economic stability to participate in the program. This helps explain the negative relationship between migration levels and 3x1 investments. That is, 3x1 projects are likely most prevalent today in the very regions where migration levels were highest twenty to thirty years ago.²² In turn, in those areas where migration levels are currently highest it is probable that those who have left have done so in recent years and thus still lack economic stability in the U.S. This, in turn, would reduce the likelihood of regions currently experiencing high migration from participating in the 3x1 program. Concerning the latter, government planners are likely to favor relatively more sustainable projects, thus favoring areas in which development shows signs of long term potential. Thus, from a strictly practical standpoint, it would make little sense to pour resources into Guanajuato's most underdeveloped regions. Given these two elements, the results reported in Table 4.5 are not particularly surprising. Nonetheless, the findings are of interest because they directly contradict the state's claim to channel 3x1 investments towards its most marginalized *municipios*. If nothing else, this reveals the fact that the way in which the state "markets" the program may not necessarily correspond to investment trends in practice.

Table 4.6 analyzes the impact of select independent variables on 3x1 per capita. Again, χ^2 tests show that regressions are significant across all four models. I run fixed-effects, least

²²This pattern relates to the fact that in general migrants to the U.S. do not emerge from the most marginalized regions but rather they tend to come from areas that are slightly better off. This tendency results from the fact that in order to migrate in the first place an individual needs to be able to absorb the initial costs of travel to the U.S. For Mexico's most marginalized citizens these costs often prohibit international migration altogether.

squares estimations as a means of measuring the effect of select independent variables on 3x1 per capita across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$3x1 \text{ per capita}_{it} = \alpha + \beta' x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The dependent variable is *3x1 per capita*, and the vector x_{it} includes the same independent variables outlined in the first column of Table 4.6.

The models in Table 4.6 report relatively similar findings to those outlined in Table 3.6. That said, 3x1 per capita is a more suitable measure for comparing 3x1 investment trends across *municipios* due to the fact that it controls for population differences from *municipio* to *municipio*. Regarding Table 4.6, as is evident in model I, the percentage of households receiving remittances has a positive effect on 3x1 per capita, implying that as the percentage of homes receiving remittances in a given *municipio* increases, 3x1 per capita in the ensuing year also increases. This relationship maintains as additional independent variables are added in models II, III and IV. Regarding the full model, regression results indicate that for every ten percent increase in household remittances, 3x1 per capita increases 175 pesos or about 14 U.S. dollars. This finding suggests that regions already receiving household remittances are more likely to participate in 3x1 projects. Still, while this finding suggests that remittances are perhaps a necessary condition for 3x1 projects, they do not appear to be the only factors at play. With that in mind, as models II, III and IV indicate, *municipios* with relatively more return migrants in the previous year report more favorable 3x1 per capita levels. In fact, for every ten percent increase in the rate of return migrants, 3x1 per capita increases by roughly 354 Mexican pesos or roughly 28 U.S. dollars. This finding reaffirms the role of transnational networks in underwriting successful 3x1 development projects. In other words, it appears that 3x1 projects are largest precisely where more migrants

return, indicating that return migrants may play a particularly important role in brokering 3x1 investments and maintaining the transnational ties necessary to carry out development projects. Still, as Table 4.6 reveals, the most powerful explainer of 3x1 investments is the percentage of migrants reported at the household level in each respective *municipio*. Specifically, for every ten percent increase in migrants there is a corresponding decrease in 3x1 per capita of about 1748 pesos or 137 U.S. dollars. This finding indicates that areas currently experiencing high levels of migration are less likely to participate in the 3x1 program. As explained previously, this finding likely relates to the nature of migration cycles in Mexico. Concerning election cycles, all other things being equal, 3x1 per capita increases just over 18 pesos in pre-election years. In turn, the coefficients for the variables HDI and HDI Squared reveal a similar trend to one documented in Table 4.5. Still, neither variable is significant in the full model, indicating that HDI levels may not be the best explainers of 3x1 investments. Finally, the variable Municipal Population is significant, revealing that 3x1 per capita is roughly 80 pesos or 6 U.S. dollars higher in rural *municipios* relative to urban *municipios*. This is perhaps to be expected given the fact that rural communities tend to maintain a stronger sense of place, thus facilitating the formation of migration clubs in the U.S. and in turn the possibility of supporting 3x1 projects back in Mexico. Here it is worth noting that I originally ran *Municipal Population* as a continuous variable; however, it did not report significance until I recoded it for rural and urban *municipios*. This outcome likely relates to the fact that rural *municipios* are distinct in nature when compared to the more urban areas of Guanajuato. Specifically, rural *municipios* tend to preserve a greater sense of community. Given this, it is quite possible that migrants emerging from rural *municipios* maintain a stronger connection with their communities, and consequently, over the years they retain a more acute sense of duty to those they left behind.

Table 4.6 Regression Analysis of 3x1 per Capita (All Parties)

3x1 Per Capita (All Parties)	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
% Homes with remittances (1 year lag)	14.46*** (2.24)	16.85*** (2.49)	17.27*** (2.51)	17.54*** (2.52)
% Homes with return migrants (1 year lag)	24.86*** (3.12)	32.12*** (3.59)	36.33*** (3.61)	35.46*** (5.45)
% Homes with Migrants (1 year lag)	-133.37*** (19.27)	-165.29*** (21.65)	-174.88*** (23.46)	-174.89*** (24.06)
Election Year (1 year lead)	-- (--)	18.44*** (6.02)	18.01*** (6.03)	18.25*** (6.02)
Municipal Party (1 year lag)	-- (--)	-- (--)	-1.34 (6.91)	-.61 (6.92)
IDH	-- (--)	-- (--)	-247.19 (232.65)	-1535.40 (2157.29)
IDH Squared	-- (--)	-- (--)	-- (--)	888.72 (1409.25)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	80.31** (40.15)
Constant	-98.96*** (22.72)	-128.44*** (25.22)	51.89*** (170.75)	475.71** (825.16)
N	387	387	387	387
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
R ²	.16	.21	.21	.23

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.
 †p<.1 *p<.05 **p<.01 ***p<.001

Table 4.5 and 4.6 analyze 3x1 investments by regressing on the combined contributions made by migrants and each branch of government. This analysis provides a better understanding

of the factors that underpin the timing and size of 3x1 investments. Still, it is quite possible that the respective contributors to the program are motivated by distinct incentives. For this reason, in the tables that follow I analyze 3x1 investment trends for each contributing party.

Table 4.7 displays the regression of independent variables on five distinct dependent variables, including: (1) 3x1 per capita (all parties), (2) 3x1 per capita (federal), (3) 3x1 per capita (state), (4) 3x1 per capita (municipal) and 3x1 per capita (migrants). In each model I run fixed-effects, least squares estimations in order to determine the effect of a number of independent variables upon the aforementioned dependent variables across 46 *municipios* in Guanajuato, Mexico. The models can be specified as:

$$3x1 \text{ per capita (all contributors)}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

$$3x1 \text{ per capita (federal)}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

$$3x1 \text{ per capita (state)}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

$$3x1 \text{ per capita (municipal)}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

$$3x1 \text{ per capita (migrants)}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The vector \mathbf{x}_{it} includes the independent variables outlined in Table 4.7.

The table allows for easy comparisons to be made across models. Concerning the variable *% Homes with remittances*, it is evident that raw remittance levels have a generally positive effect on 3x1 per capita in the ensuing year. In each model an increase in household remittances results in higher contributions to 3x1 projects. This finding implies that remittance levels play a crucial role in initiating 3x1 development projects and perhaps in attracting the attention of state

officials in the first place. Similarly, across all models, an increase in the percentage of homes with return migrants has a positive effect on 3x1 per capita in the ensuing year. It is worth noting that this particular effect is weakest in model IV, indicating that municipal contributions, while clearly influenced by return migrant levels, may be influenced to a greater degree by other variables. In turn, as in previous models, the percentage of homes with migrants reveals a negative relationship between migration and 3x1 investments. Regarding election cycles, as model I illustrates, 3x1 per capita levels increase substantially across all models in pre-election years. However, not surprisingly the coefficients for *Election Year* are largest in models II, III and IV. This implies that election cycles impact the 3x1 contributions made by the government more than those made by migrants. Intuitively, this finding makes sense in that migrants would have the least to gain from supporting larger investments in pre-election years. State officials, local representatives and their respective political parties, on the other hand, could potentially gain popularity within their respective districts by stacking 3x1 investments in pre-election years. At this point it is important to recall that 3x1 projects are approved through the COVAM, in which municipal, state and federal officials make up 75 percent of the votes. With this in mind, in most cases a coalition of local politicians would be enough to approve a disproportional number of projects in pre-election years. Regarding political parties, it is apparent that individual political parties explain very little of the variation in 3x1 investments patterns. Similarly, neither *HDI* nor *HDI Squared* report significance, indicating that levels of municipal development do not improve our understanding of 3x1 investments. In contrast, the variable *Municipal Population* is positive and significant, demonstrating that 3x1 investments are far more prevalent in rural *municipios*. This outcome is to be expected given the fact that 3x1 projects tend to be carried out in smaller, rural *municipios* and less frequently in *municipios* with larger urban populations.

Finally, in comparing across models, it is evident that model IV underperforms in comparison to the other models outlined in Table 4.7. This indicates that while there are clearly omitted variables in each model, this may be particular true of model IV. Although there is no clear explanation for this, taken together, the comparisons made above suggest that 3x1 investments made by municipal governments disproportionately hinge upon variables that lie outside of the 3x1 development model. With this in mind, it is likely that additional factors not captured by this regression also impact 3x1 contributions from municipal governments.

Table 4.7 Comparison of Regression Analysis of 3x1 per Capita

	Model I	Model II	Model III	Model IV	Model V
	Coef.	Coef.	Coef.	Coef.	Coef.
3x1 per capita	All Parties	Federal	State	Municipal	Migrant
% Homes with remittances (1 year lag)	17.54*** (2.52)	3.85*** (.69)	5.32*** (.75)	4.61*** (.65)	3.73*** (.64)
% Homes with return migrants (1 year lag)	35.46*** (5.45)	11.56*** (1.49)	9.47*** (1.62)	5.94*** (1.39)	8.31*** (1.39)
% Homes Migrants (1 year lag)	-174.89*** (24.06)	-50.95*** (6.57)	-49.25*** (7.18)	-35.07*** (6.16)	-39.32*** (6.12)
Election Year (1 year lead)	18.25*** (6.02)	4.56*** (1.64)	4.93*** (1.79)	4.95*** (1.53)	3.82** (1.52)
Municipal Party (1 year lag)	-.61 (6.92)	-.26 (1.88)	-.09 (2.06)	-.88 (1.77)	.59 (1.76)
HDI	-1535.40 (2157.29)	-238.89 (547.79)	-487.25 (598.39)	-418.60 (513.46)	-340.60 (510.52)
HDI Squared	888.72 (1409.25)	114.62 (364.45)	289.07 (398.12)	276.27 (341.61)	192.67 (339.65)
Municipal Population (rural = 1; urban = 0)	80.31** (40.15)	15.28+ (10.95)	25.19** (11.96)	19.43* (10.26)	20.70* (2.97)
Constant	475.71** (825.16)	78.49* (209.73)	151.99* (229.11)	115.12* (196.59)	110.57* (195.46)
N	387	387	387	387	387
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
R ²	.23	.26	.21	.17	.21

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

The previous analysis clarifies a number of important factors underpinning 3x1 investments trends; however, the results from above also demonstrate that there are a number of

exogenous variables that are not accounted for in the model. On that note, examining the relationship between respective 3x1 contributions over time may shed light on the factors that influence funding patterns within the 3x1 program. Table 4.8 analyzes the relationship between select independent variables and the ratio of 3x1 investment contributions across *municipios*. As in previous models, here I run fixed-effects, least squares estimations in order to determine the effect of a number of independent variables upon the 3x1 ratio across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$3x1\ ratio_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The dependent variable is *3x1 ratio*, and the vector x_{it} includes the independent variables outlined in the first column of Table 4.8.

In the general, the model explains little of the variation surrounding the dependent variable *3x1 ratio*. Still, both *% Homes with remittances* and *% Homes Migrants report* report significance. Specifically, as the percentage of household remittances increases, the *3x1 ratio* also increases. In contrast, as the percentage of homes with migrants increases at the municipal level the *3x1 ratio* decreases. This finding reaffirms the notion that high migration levels do not necessarily guarantee high remittance levels. Rather, as explained previously, it appears that remittances begin to flow into communities well after initial emigration has begun. This relationship has clear implications on the *3x1 program* in so much that the *3x1 contribution ratio* is generally highest in those areas with heavy in-flows of cash transfers and not necessarily areas of high migration. Put simply, migrants and their communities get more bang for their buck in *municipios* with relatively larger flows of remittances. Although the casual mechanism driving this outcome is not entirely clear, it appears that state officials may consciously contribute more to projects located

in *municipios* with large remittance flows. Finally, the variable *Election Year* indicates that the 3x1 ratio is more favorable for migrants in pre-election years ($P < .1$). This finding is important as it indicates that while state officials do indeed stack 3x1 projects in pre-election years, it is at least in part to the benefit of migrants and their communities. Together, these findings point back to the importance of the state in brokering 3x1 projects. No other independent variables in this model report statistical significance.

Table 4.8 Regression Analysis of 3x1 Investments

3x1 Ratio	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
% Homes with remittances (1 year lag)	1.91** (.61)	2.40*** (.72)	2.48*** (.73)	2.56*** (.74)
% Homes with return migrants (1 year lag)	.37 (.61)	.78 (.74)	.51 (1.18)	.53 (1.18)
% Homes Migrants (1 year lag)	-9.44 (4.39)	-13.50** (5.38)	-13.34** (5.80)	-12.92** (5.87)
Election Year (1 year lead)	-- (--)	1.60 (1.30)	1.59+ (1.31)	1.61+ (1.32)
Municipal Party (1 year lag)	-- (--)	-- (--)	-1.24 (1.62)	-1.33 (1.63)
HDI	-- (--)	-- (--)	14.10 (57.22)	-456.21 (603.18)
HDI Squared	-- (--)	-- (--)	-- (--)	301.09 (383.38)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	1.44 (8.30)
Constant	-12.18 (5.55)	-16.39* (6.53)	-27.01 (42.75)	-153.67 (236.05)
N	387	387	387	387
Prob. > χ^2	.011	.000	.000	.000
R ²	.11	.05	.05	.06

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

The next series of tables present the results of regression analysis on political factors related to 3x1 investments. Table 4.9 addresses the relationship between select independent variables and public works spending per capita. For this model, I run fixed-effects, least squares estimations in order to determine the effect of a number of independent variables upon public works per capita across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$Public\ Works\ per\ Capita_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio*, t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The dependent variable is *Public Works per Capita*, and the vector x_{it} includes the independent variables outlined in Table 4.9.

Across all models, a negative relationship is noted between public works spending and 3x1 per capita levels. Specifically, as model IV indicates, as 3x1 per capita increases 100 pesos, public works per capita falls 218 pesos in the ensuing year. This finding implies that government officials may use 3x1 investments as a means of offsetting public work investments. Put differently, it appears that *municipios* do not necessarily contribute “extra” cash to 3x1 projects but rather divert funds to the program that they would have otherwise use for public works projects anyways. It is quite possible, nonetheless, that public works spending follows a cyclical trend, such that when investment is high one year, it tends to fall in the subsequent year. For this reason I control for public works spending in the previous year by including an independent variable *Public works spending per capita*, which is lagged one year. Still, as the reader can see, as public works spending increases 100 pesos, public works spending in the subsequent fiscal period increases by roughly 50 pesos. Given this, it appears rather clear that in the state of Guanajuato 3x1 investments are used strategically to offset municipal spending on public works projects. As previously mentioned, this draws into questions the degree to which *municipios* are

actually “matching” migrant contributions. It does not necessarily, however, negate the potential of 3x1 projects to stimulate meaningful development. (I return to this point in Chapter 5.) Moreover, this finding reveals the influence that migrants wield over public works spending within the 3x1 framework. That is, while the 3x1 resources put forth by the government may not necessarily be “new” funds, the program’s framework does indeed provide migrants and their communities with a new means through which to leverage local development.

The percentage of homes receiving remittances is found to have a positive impact on public works per capita. To be specific, a 10 percent increase in homes receiving remittances results in a \$722 peso increase in public works per capita. Similarly, the percentage of return migrants in a given *municipio* has a significant effect on public works spending. As model IV reveals, as the percentage of return migrants increases 10 percent, expenditure on public works per capita in the ensuing year increases by about \$1,304 pesos or roughly \$102 U.S. dollars. In turn, the relationship between public works spending and election years is positive; indicating that, like 3x1 investments, public works per capita increase in pre-election years. This result is particularly important because it reveals the fact that election cycles play an important role in determining not only the timing of 3x1 investments but also the timing of all public infrastructure projects in Guanajuato.

Finally, as displayed in model IV, there appears to be a parabolic relationship between public works per capita and human development levels, such that spending increases with development until a threshold is reached at which point public works per capita begins to fall. No other variables in Table 4.9 report statistical significance.

Table 4.9 Regression Analysis of Public Works per Capita

	Model I	Model II	Model III	Model IV
Public works per capita	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	-1.61** (.62)	-2.31*** (.68)	-2.14*** (.68)	-2.18*** (.68)
Public Works per Capita (1 year lag)	.52*** (.05)	.49*** (.05)	.49*** (.05)	.49*** (.05)
% Homes with remittances (1 year lag)	20.94 (22.06)	93.97** (36.10)	77.71** (36.12)	77.28** (36.12)
% Homes with return migrants (1 year lag)	172.5*** 35.09	281.01*** (55.05)	114.43* (76.35)	130.42** (76.39)
% Homes Migrants (1 year lag)	-- (--)	-813.66** (320.13)	-448.91* (338.47)	-620.73* (346.56)
Election Year (1 year lead)	-- (--)	-- (--)	94.78+ (77.46)	86.27+ (77.21)
Municipal Party (1 year lag)	-- (--)	-- (--)	-106.6 (82.57)	-94.90 (82.39)
HDI	-- (--)	-- (--)	8803.2** (3049.2)	69755.6** (29532.1)
HDI Squared	-- (--)	-- (--)	-- (--)	-39565.5** (19144.5)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	230.19 (463.96)
Constant	-491.64*** (305.39)	-909.39** (344.35)	-7225.52*** (2232.9)	-30573.4** (11369.8)
N	344	344	344	344
Prob. > χ^2	.000	.000	.000	.000
R ²	.36	.37	.39	.41

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

The models displayed in Table 4.10 address levels of electoral participation. In general, the models perform well, explaining nearly forty percent of the variation surrounding electoral participation patterns across *municipios*. χ^2 tests show that all regressions are significant. In contrast with previous models, here I run random-effects, robust generalized least squares estimations in order to determine the effect of select independent variables upon total 3x1 investments across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$\text{Electoral Participation}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The dependent variable is *Electoral Participation*, and the vector \mathbf{x}_{it} includes the independent variables outlined in Table 4.10.

As the reader will note, the coefficient for *3x1 per capita* reveals a positive relationship between 3x1 investments and electoral participation in the ensuing year. Specifically, as outlined in model IV, a 100 peso increase in 3x1 per capita results in a 2.1 percent increase in voter participation. The actual increase in participation levels is clearly minimal. Still, since 1982 voter turnout in Mexico has fall from 72.56 percent of registered voters to 44.61 percent in 2009 (IFE: Data accessed on 07/07/2012). Thus, while the measured effect of 3x1 investments on voter participation is small, the significance of the effect is nonetheless noteworthy. Similarly, the coefficient for *Public works per capita* is significant, indicating that as public works per capita increases 100 pesos voter turnout increases by .2 percent. These findings imply that 3x1 investments—and public works projects in general—may in fact be governed by a certain degree of clientelism. Still, the results outlined in Table 4.10 also provide evidence to support the notion that government investments drive higher turnout rates due to the fact that constituents are pleased to see their officials responding to their demands. Taken together, these results suggest

that the consolidation of democratic practices in traditionally non-democratic public spaces does not necessarily follow a “this road or that road” logic.

The previous finding appears to be related to the positive relationship found between the percentage of return migrants in a *municipio* and voter participation levels. As Model IV illustrates, for every 10 percent increase in return migrants, voter turnout increases by more than 5 percent. There are three potential mechanisms that could be driving this increase. On the one hand, it is quite possible that voter participation increases in *municipios* with relatively larger 3x1 per capita levels precisely due to the fact that citizens sense that the government responds to their demands, and as a result, they reward their representatives by turning out at the polls. On the other hand, it is possible that *municipios* with relatively higher 3x1 per capita levels vote more often due to the fact that they have stronger social networks. That is, one would expect that *municipios* with a relatively active citizenry would be more likely to turn out at the election polls. This scenario is consistent with previous research that demonstrates the role of social capital in underpinning successful transitions to democratic governance (Putnam 1994). Still, there is a potential third scenario as well. That is, it is just as possible that politicians drive higher turnout rates by patronizing potential voters with public works projects. As the reader will note, these scenarios are not necessarily mutually exclusive. Rather, it is quite possible that all three scenarios play out in practice to varying degrees. In this sense, progress should be measured by the degree to which the first two scenarios occur in relation to the latter.

Table 4.10 also demonstrates that as household remittances increase electoral participation decreases. This finding suggests that communities that receive large cash transfers from abroad may have less incentive to pressure the state for resources. In addition, regarding the variable *Municipal Party*, regression analysis documents that as party type moves away from

PAN, electoral participation increases. Intuitively, this finding makes sense given the fact that PRI is the second largest party in the state and tends to be more successful in rural *municipios*, which traditionally have higher participation rates due to the fact that political patronage systems of years past still have relatively more political traction. Finally, the variables *HDI* and *HDI Squared* illustrate a parabolic relationship between electoral participation and human development levels; such that participation first increases with development but eventually falls off as development continues to improve. This finding is supported by the variable *Municipal Population*, which demonstrates that electoral participation is higher in rural *municipios* relative to urban *municipios*. Together, these three variables demonstrates what developed countries know all too well—highly consolidated democracies do not necessarily have highly participatory publics. With that in mind, it is worth noting that even when controlling for municipal population size and development levels, 3x1 investments continue to have a positive effect on electoral participation. As I argue in the discussion section of this chapter, this finding has implications for democratic theorists working both inside and outside of Mexico.

Table 4.10 Regression Analysis of Electoral Participation

	Model I	Model II	Model III	Model IV
Electoral Participation	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	.023** (.008)	.026** (.008)	.027*** (.008)	.021** (.009)
Public Works per Capita (1 year lag)	.002*** (.0006)	.0022*** (.0006)	.002*** (.0006)	.002*** (.0006)
% Homes with remittances (1 year lag)	-.43*** (.13)	-.64** (.26)	-.69** (.26)	-.74*** (.24)
% Homes with return migrants (1 year lag)	.79* (.39)	.47 (.52)	.58+ (.61)	.52+ (.57)
% Homes migrants (1 year lag)	-- (--)	2.01 (2.17)	2.11 (2.43)	.80 (2.28)
Municipal Party (1 year lag)	-- (--)	-- (--)	2.37* (1.10)	2.14** (1.05)
HDI	-- (--)	-- (--)	6.59 (1.75)	7.95*** (2.73)
HDI Squared	-- (--)	-- (--)	-- (--)	-5.05*** (1.76)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	6.15*** (1.70)
Constant	5.07*** (1.71)	5.23*** (2.35)	4.68*** (1.36)	-2.60** (1.05)
N	129	129	129	129
Prob. > χ^2	.000	.000	.000	.000
R ²	.19	.19	.24	.36

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.
 +p<.1 *p<.05 **p<.01 ***p<.001

The models displayed in Table 4.11 address levels of electoral competition, as measured by the Nb index. I run the model in random-effects, robust generalized least squares estimations in order to determine the effect of a number of variables upon party competition across 46 *municipios* in Guanajuato, Mexico. The model can be specified as:

$$\text{Electoral Competition}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects and $\varepsilon_{i,t}$ is the error term. The dependent variable is *Electoral Participation*, and the vector \mathbf{x}_{it} includes the independent variables outlined in Table 4.11.

Overall, the models outlined below perform poorly, explaining roughly ten percent of the variation. In addition, all four models report less than stellar χ^2 scores. Still, the analysis is not entirely in vain. As model IV illustrates, the percentage of homes with migrants has a positive effect on electoral competition. This may reflect the fact that emigration generally tends to take place in semi-marginalized *municipios*, which are precisely the areas in which one would expect traditional patron-client norms to influence electoral politics. In addition, the percentage of homes receiving remittances has a negative effect on electoral competition, as does the percentage of homes with return migrants. Both of these variables likely reflect the fact that return migrants and remittances flows tend to be higher in relatively more developed rural *municipios*. In general, little can be drawn from these results. Still, as I explain below, the story may be more complex than anticipated.

Table 4.11 Regression Analysis of Electoral Competition

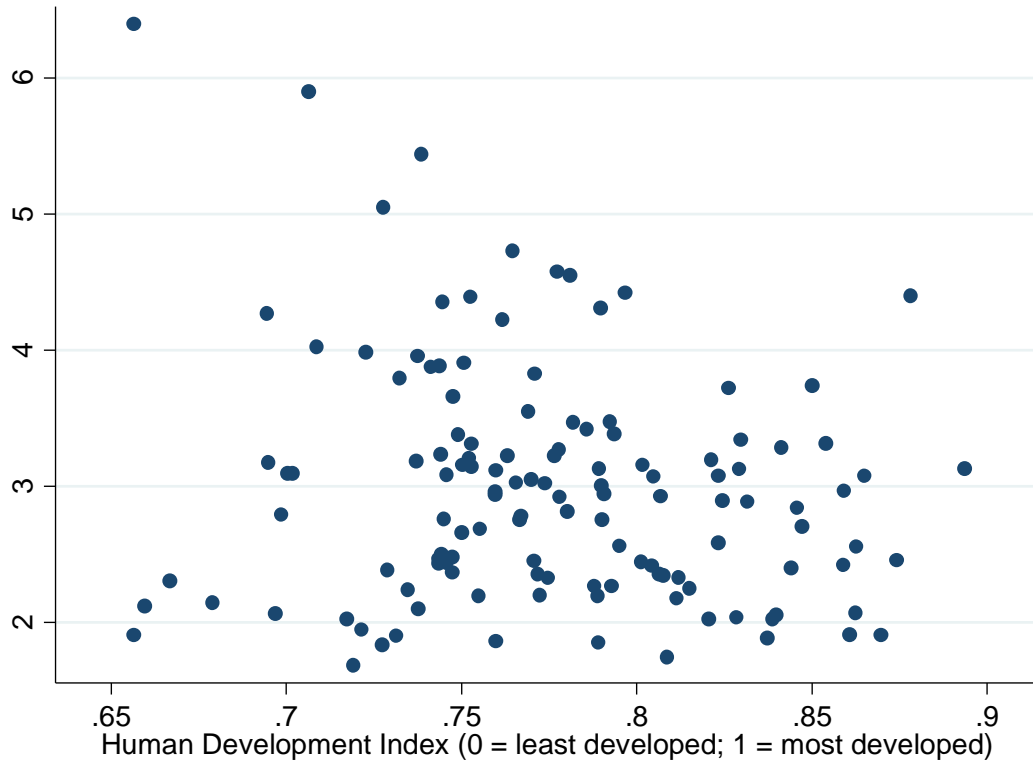
	Model I	Model II	Model III	Model IV
Electoral Competition	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	-.002*	-.0008	-.0008	-.001
	(.001)	(.001)	(.001)	(.001)
Public Works per Capita (1 year lag)	.00006	.00007	.00007	.00006
	(.00008)	(.00007)	(.00007)	(.00008)
% Homes with remittances (1 year lag)	-.002	-.09**	-.08**	-.09**
	(.02)	(.03)	(.03)	(.03)
% Homes with return migrants (1 year lag)	-.06	-.19**	-.19**	-.19*
	(.05)	(.08)	(.08)	(.08)
% Homes migrants (1 year lag)	--	.88**	.88**	.86**
	(--)	(.32)	(.32)	(.32)
Municipal Party (1 year lag)	--	--	-.09	-.10
	(--)	(--)	(.14)	(.14)
HDI	--	--	-.31	-2.39
	(--)	(--)	(2.26)	(36.47)
HDI Squared	--	--	--	1.63
	(--)	(--)	(--)	(23.61)
Municipal Population (rural = 1; urban = 0)	--	--	--	.19
	(--)	(--)	(--)	(.24)
Constant	3.20***	3.82***	4.09*	4.71
	(.24)	(.31)	(1.74)	(14.05)
N	129	129	129	129
Prob. > χ^2	.11	.005	.01	.05
R ²	.10	.10	.10	.11

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.
 +p<.1 *p<.05 **p<.01 ***p<.001

The results reported in Table 4.11 are at best muddled. However, as insinuated above, one reason for this may have to do with the relationship over time between electoral competition and development. One might expect, for example, that electoral competition would initially experience a strong increase in *municipios* that have long been dominated for decades by the PRI. That is, once the PRI's grip on a given electorate were broken, upstart parties would be expected to rush in and take advantage of the sudden political void. However, overtime it would be expected that electoral competition would fall slightly once it became apparent which parties were able to successfully compete for the support of constituents from election to election. Graph 4.6 supports this notion. As the graph illustrates, as human development improves in *municipios* electoral competition rises at first only to fall again in the state's most developed *municipios*.

The aforementioned trends are of interest due to the fact that electoral participation and competition are highest in specifically those *municipios* where the majority of 3x1 projects are carried out. This places the 3x1 program in a unique position to recapture the confidence of citizens that had come to place little faith in the autocratic norms of previous political regimes. Naturally, any such efforts would be fruitless if the 3x1 program does not contribute to meaningful development on the ground. With that in mind, I turn to the subsequent chapter in which I analyze the relationship between 3x1 investments and indicators to human development. First, however, I briefly summarize the findings from this chapter.

Graph 4.6 Electoral Competition and Human Development



Source: Author; data from SEDESOL, CONAPO.

Conclusions

The results of this analysis corroborate previous research demonstrating the piecemeal nature of democratic consolidation within the Third Wave of Democracy in Latin America.²³ Specifically, via an empirical examination of the 3x1 program, this study provides insight into the process of political consolidation amidst Mexico's transition towards democratic governance. Related to this, regression analysis identifies two mechanisms that are central to understanding 3x1 investment trends: (1) migrant networks and (2) political utilitarianism. Concerning the

²³ Note: There is a very large literature available concerning the relationship between democracy and decentralization in Latin America. In addition to those cited previously in this study, see: Cameron (2005), Eaton (2004, 2006), Fox (2007), Fox and Moguel (1995), Fox and Aranda (1996), Gibson (2004), Montero and Samuels (2004), Moreno-Jaimes (2007) and Rowland (2001).

former, it is clear that migrants must supply remittances, time and energy in order for 3x1 projects to materialize. Moreover, the presence of strong migrant networks within *municipios* appears to be paramount to the 3x1 process. This point is extremely important because it reveals the potential for migrants to stimulate political participation at the local level. Moreover, it demonstrates that migrants transfer much more than mere financial resources back to Mexico. Rather, as documented elsewhere, they transfer important social remittances (Levitt 1998, 2011), including knowledge about democratic alternatives (Pérez-Armendáriz and Crow). On the other hand, in regard to the latter, politicians appear to play a clear role in determining the timing of 3x1 projects. Moreover, it appears that local governments do not necessarily “add” to overall development funds in participating in 3x1 projects. Still, the reader should interpret this particular finding cautiously because this is likely true of most participatory programs. Decentralization, after all, does not miraculously create “additional” funds but rather alters the process through which government funds are distributed. In this respect, the 3x1 program does allow migrants and their communities to play a hands-on role in determining the destination of funds that would have otherwise been allotted to public works projects with little to no communal input. Nonetheless, in the case of the 3x1 program, government officials do place a great deal of emphasis on the fact that they “match” migrant funds. While there is no direct deception at play here, in my conversations with government officials it became quite evident that an important part of the program from the government’s standpoint is the maintenance of their image as an altruistic entity that makes real concessions in order to match migrant sacrifices.²⁴

²⁴ Here it is worth pointing out that in interviews with government officials every time I would inquire about the funding paths from which state and municipal governments draw to support 3x1 projects, the official I was speaking with would skirt the issue and quickly transition the conversation towards a less sensitive topic.

Taken together, the findings presented here demonstrate that migrant remittances clearly have the potential to underpin a unique form of development in which migrants gain agency within the micro and macro economies of *municipios* across Guanajuato. Still, as the findings outlined throughout this chapter reveal, this potential is often tempered by the political overtones that accompany 3x1 projects. Two brief anecdotes from the field help clarify this point. As the reader will note, each example reveals the degree to which political parties use the state structure—and specifically the 3x1 para migrantes program—for electoral purposes.

On July 1st, 2012 the former director of SEDESHU, Miguel Marquez Marquez, won Guanajuato's governorship as a candidate for PAN. There is nothing particularly peculiar about this except for the fact that Marquez Marquez was director of SEDESHU for less than a year. Prior to moving to SEDESHU he directed Guanajuato's office for Accountability and Transparency. After declaring his candidacy for governor, members of the press immediately began accusing the governor at the time, Juan Manuel Oliva (PAN), of repositioning Marquez Marquez into the SEDESHU position as a means of getting him "face time" with local communities. If in fact this was PAN's intention, SEDESHU represented the perfect platform for Mr. Marquez due to the fact that the department carries out development projects across the state and thus requires the director to make frequent visits to communities in each of the state's 46 *municipios*. Related to the research at hand, during his time as director of SEDESHU Mr. Marquez made multiple high-profile visits to migrant communities in order to commemorate 3x1 projects. I had the opportunity to witness one of these visits in the town of Ojo de Agua (Abasolo). As described in Chapter 3, for this particular event, Juan Manuel Oliva and Miguel Marquez Marquez arrived by helicopter to a frenzied crowd. In addition to inaugurating a road funded by the 3x1 program, Mr. Oliva and Mr. Marquez participated in a series of speeches that

lasted for well over an hour. And although the pair focused on the 3x1 program, they made a point of emphasizing the current administration's commitment to social development around the state. They also made it quite clear that if PAN—and thus Marquez Marquez—were elected in the upcoming elections, citizens could expect more of the same from the next administration.

The next anecdote concerns an interview I did back in 2009 with the director of migrant affairs in the *municipio* of San José de Iturbide. The main purpose of the interview was to inquire about San Iturbide's growing level of participation in the 3x1 program. In particular, I was interested why the *municipio* had invested such a great deal in the expansion of electricity grids but had only made minor investments in other projects. The director's response was surprisingly straightforward: "Our municipal president prefers to invest in projects that are visible. Other projects may be meaningful but the people do not see them." By "visible", of course, the official was drawing an association between public works projects, party interests and elections. Put simply, San Iturbide's president was most interested in supporting projects that would visibly reflect favorably upon his government and thus help his party win future elections.

These two anecdotes reveal the potential political importance of 3x1 projects—and remittances in general—from the standpoint of state representatives as well as municipal officials. At face value, this is an unhealthy relationship. The degree to which election cycles dictate development projects in the state of Guanajuato is troubling if nothing else due to the fact that citizens should not have to wait for pre-election years in order to see their demands met. Rather, in a democratic society, politicians should work throughout their tenure to improve the standard of living within their respective districts. This discussion must be considered alongside the fact that relatively less developed *municipios* with high migration rates are far less successful at accessing state resources. Given this, one cannot help but wonder what will happen

to public investment patterns in the most marginalized regions of rural Mexico as migration to the U.S. begins to drop.²⁵

In theory politicians should work hard to improve the lot of all citizens and not merely those who have the capital to purchase political influence. Migrants represent a unique social group in the sense that unlike most rural citizens in Mexico, they have the potential to pool large quantities of cash and as a result they are able to garner the attention of politicians. This point obviously brings up real concerns about the degree to which other powerful constituents are able to influence political officials. Specifically, concerning rural Mexico, this finding makes one wonder to what degree narco-trafficking networks are able to influence local politics in Guanajuato and other parts of the country. As noted previously, decentralization has the potential to make resource allocation more efficient and responsive by providing local citizens with access to the political decision making process. Still, under the wrong conditions, decentralization also has the ability to open the door to perverse power structures, such as drug cartels. Given the fact that in recent years decentralization in Mexico has coincided with a major economic recession and a clear increase in narco-trafficking activity across the country, it is entirely plausible that this scenario will become a reality for *municipios* that experience high levels of drug trafficking. In fact, it may already have. In an interview I conducted in 2009 with a senior official within Guanajuato's 3x1 administrative offices, it was brought to my attention that state officials suspect that drug money has been laundered through the 3x1 program by respective cartel members residing in the U.S. While the official reassured me that these types of transfers

²⁵Recent studies demonstrate that Mexican migration to the U.S. has reached a “net-zero” for the first time since the 1960s (Massey and Castañeda 2012). Moreover, taking into account falling fertility rates, improved economic development in Mexico and slow economic recovery in the U.S., there are no immediate signs that indicate that migration rates from Mexico to the U.S. will ever return to the historic levels reached over the course of the last three decades.

have since ceased, she also made it clear that it is beyond the capacity of government officials to determine whether or not migrants obtained their funds from illicit activities. The official's message was clear: migrants are migrants and cash transfers, regardless of their origin, are cash transfers.

Taken together, this chapter illustrates the complex reality of political decentralization and democratic consolidation in Mexico. In particular, regression analysis reveals that local officials employ decentralized funds to their political benefit. While these findings are limited in scope and should not be used to generalize about the decentralization process elsewhere, it is important to point out that they resonate with other studies concerning decentralization and politics in Mexico. For example, in a national study regarding fiscal decentralization and elections in Mexico, Moreno-Jaimes (2007) concludes, "...spending on public works projects is highly political: not only does it increase significantly in election years, but it is also a useful means through which municipal governments are able to make their actions more visible to the population..." (2007, 432). Still, to many these findings will not come as a surprise. After all, old habits die hard. In a region historically tarnished by sinecures and clientelistic political practices, one might expect local politicians to use remittances to their benefit, just as one would expect migrants to take advantage of the 3x1 program as a means of increasing the impact of RLD in hometowns. Still, the fact that 3x1 investments share a positive relationship with electoral participation demonstrates that electoral politics are real in the state of Guanajuato. Moreover, the 3x1 program is evidence that the decentralization process has successfully incorporated new incentives to appeal to voters. Given this, one could argue that the findings reported here reflect the growing pains of progress and that as long as human development indices are improving (and they are in Mexico) there is no reason to fret too much about less than democratic political

practices. As the Lipsetian adage goes: development, then democracy. With this in mind, a lingering question remains: Do *municipios* with relatively more 3x1 investments have better social-economic development outcomes than *municipios* that participate less in the program? In the chapter that follows I address this question by analyzing the impact of 3x1 investments on human development indicators across Guanajuato's forty-six *municipios*.

Chapter 5: Remittances and Human Development Trends

Put in other words, in the context of this simple model, the impact of the international transfer on the growth rate will depend on the policies being implemented by the country. Policy makers, therefore, can potentially affect the impact that an international income transfer has on growth by introducing appropriate changes to the policy environment. (Calderón et al. 2008:336)

In 1959 Seymour Lipset contended that "[I]n dealing with democracy, one must be able to point to a set of conditions that have actually existed in a number of countries...which differentiate most democratic states from most others" (1959:69). Specifically, Lipset concluded that open-class systems, economic wealth, egalitarian value systems, a capitalist economy, a literate population and high participation in voluntary organizations, while not sufficient in and of themselves for democracy, appear to be necessary conditions for stable democratic government. In subsequent years these factors went on to form the core variables of an emerging body of empirical research focused on the economic determinants of democratic governance. Findings from this body of literature provide a fairly clear depiction of the factors that distinguish democracies from non-democracies. In particular, researchers document a positive relationship between economic growth and government investment in social programs. In turn, improved health care and wider access to education foster the development of human capital, which creates more productive workers and increases the likelihood of citizens participating in the political system. Moreover, this development appears to improve the probability that citizens will hold elected officials accountable for their policy decisions (Lipset 1959; Muller 1995:966; Barro 1999). In the most basic sense, these advances mark the foundation of democratic governance.

This aforementioned process is particularly influenced by the expansion of the middle sectors. For example, Rueschemeyer et al. (1992) find that "the middle class emerges as the main

pro-democratic force in Lipset's analysis, and this class gains in size with socioeconomic development" (1992:14). Developing countries, nonetheless, are not historically blessed with strong middle classes. There are examples, however, where developing countries have been able to stimulate the growth of middle sectors through economic expansion and the extension of education to previously ostracized groups. (The cases of South Korea, Taiwan, Poland and Ireland clearly demonstrate this possibility.) Still, nowhere has this process been linear. On the contrary, at first economic development tends to incite an increase in income inequality before eventually acting as a catalyst for a more egalitarian society (Ahluwalia 1976; Bollen and Jackman 1985; Kuznets 1963; Lydall 1979; Muller 1988, 1995; Paukert 1973; Weede 1980; Weede and Tiefenbach 1981). It was for this reason that Simon Kuznet argued that in developing countries inequality would at first rise only to fall in latter stages as the benefits of modernity begin to benefit all groups in society. Still, few countries around the world have neatly followed the contours of Kuznet's curve. Rather, the degree to which inequality reaches the backside of Kuznet's curve appears to hinge largely on the government's ability to expand educational opportunities and transfer economic growth to previously unincorporated communities through meaningful social programs.²⁶ Developments in Mexico over the last fifty years seem to corroborate this process.

In their renowned 1965 study *The Civic Culture*, which included Mexico as a case study, authors Gabriel A. Almond and Sidney Verba conclude that:

Among the demographic variables usually investigated—sex, place of residence, occupation, income, age, and so on—none compares with the educational variable in the extent to which it seems to determine political attitudes. The uneducated man or the

²⁶Recent upswings in inequality in the U.S. and U.K. suggest that public policy can also reverse a country's initial descent down the backside of Kuznet's curve. Specifically, as the aforementioned cases reveal, deregulation of the financial sector coupled with lower taxes and less focus on social welfare programs can incite unprecedented increases in social inequality in even the most highly developed countries in the world.

man with the limited education is a different political actor from the man who has achieved a higher level of education. (1965:316)

Sindney and Vebra's findings are corroborated by Rafael Segovia's (1975) results published in *La Politización del Niño Mexicano* in which the author documents a negative relationship between education attainment and support for paternalistic political organizations. Specifically, Segovia finds that children with higher education levels were less supportive of political organizations and unions, and in general, they were more likely to hold negative attitudes towards paternalistic political norms. As the Segovia notes, this is particularly interesting given the fact that the children with higher education attainment in the author's survey stood the most to gain from supporting traditional political norms given that at the time the political status quo was likely to have benefited their families directly.

Still, the redistribution of public resources—including education—to the general public requires sustained economic growth. In the case of Mexico, despite initial evidence of social change in the late 1970s, by the mid-1980s it was clear that macro-economic growth and regional integration in Mexico had failed to incite more equitable social relations (Legovini, et al. 2005 and Portes 1985 and 2003). Instead, from 1984 to 1994 Mexico was witness to rising social inequality and the contraction of employment sectors amongst the middle and lower classes (Korzeniewicz 2000; Portes 1985 and 2003). These developments led critics of the political transition to conclude that while neoliberal economics may have spurred the emergence of stable democratic elections in Mexico, they did not appear to have improved the quality of democratic governance (Weyland 2004; Cansino 2009). That said, recent research indicates that social equity in Mexico has improved over the last decade. Specifically, since the late 1990s income inequalities have fallen in Mexico and according to Mexican economist Gerardo Esquivel, this trend is largely a product of the expansion of education, more pointed social programs and

migrant remittances. Concerning the latter, Esquivel provides evidence that remittances have played an important “equalizing” role in reducing income inequality throughout the country and in particular in rural communities (Esquivel 2010). Esquivel’s discovery echoes findings from across Latin American that indicate that remittances share a positive relationship with economic growth (Calderón et al. 2008:336; Birdsall, Lustig, and McLeod 2011:12).

Taken together, the findings outlined above point to a potential association between migrant remittances, economic growth and democratic consolidation in Mexico. In this chapter I focus on the relationship between migrant remittances and human development. I begin by with a brief overview of previous work addressing the impact of remittances in communities across Mexico.

Remittance and Human Development in Mexico

According to the United Nations Development Program (UNDP), development is the process through which individuals gain access to “an enabling environment” that allows them “to enjoy long, healthy, and creative lives.” In short, development provides individuals with leverage over the factors that condition their lives. With this definition in mind, the basic question driving this chapter is: Do migrant remittances, and specifically remittances channeled towards certain types of community initiatives, lead to higher levels of human development (i.e., improved education attainment, more access to healthcare and higher levels of per capita income)?

Traditionally, both academics and the Mexican state viewed migration to the U.S. as an irrevocable form of exit that trapped migrants in a vicious cycle of dependency in which migrants and their families wasted away precious savings on superfluous consumption in hometowns and nearby urban centers (Reichert 1981; Stuart and Kearney 1981; Wiest 1979).

Subsequent research challenged these early findings, arguing that remittances have multiplier effects within local economies, thus directly and indirectly stimulating employment, investment and income (Adelman, Taylor and Vogel 1988; Adelman and Taylor 1992; Durand, Parrado and Massey 1996; Calderón 2008). This line of research illustrated the emerging potential for a migrant “voice” in communal development in Mexico and refuted notions suggesting that “exit” necessarily mean that migrants irretrievably lose positive influence within their hometown communities.

One of the earliest studies to reveal the potential of RLD in hometown communities was Adelman, Taylor and Vogel's article titled, "Life in a Mexican Village: A SAM Perspective." In their article the authors employ a Social Accounting Matrix (SAM) to analyze the structural makeup of a migrant sending community in central Mexico. In their analysis the authors find that international migrant remittances play a crucial role in growth patterns in the village economy (1988). Several years later, in a review of remittance studies conducted in Mexico, Durand and Massey (1992) find that on average less than 50% of migrant remittances are spent on production but that there is a great deal of variance in remittance spending patterns across communities. This latter finding leads the authors to conclude that, "it is more appropriate to ask why productive investment occurs in some communities and not in others" (Durand and Massey 1992:27).

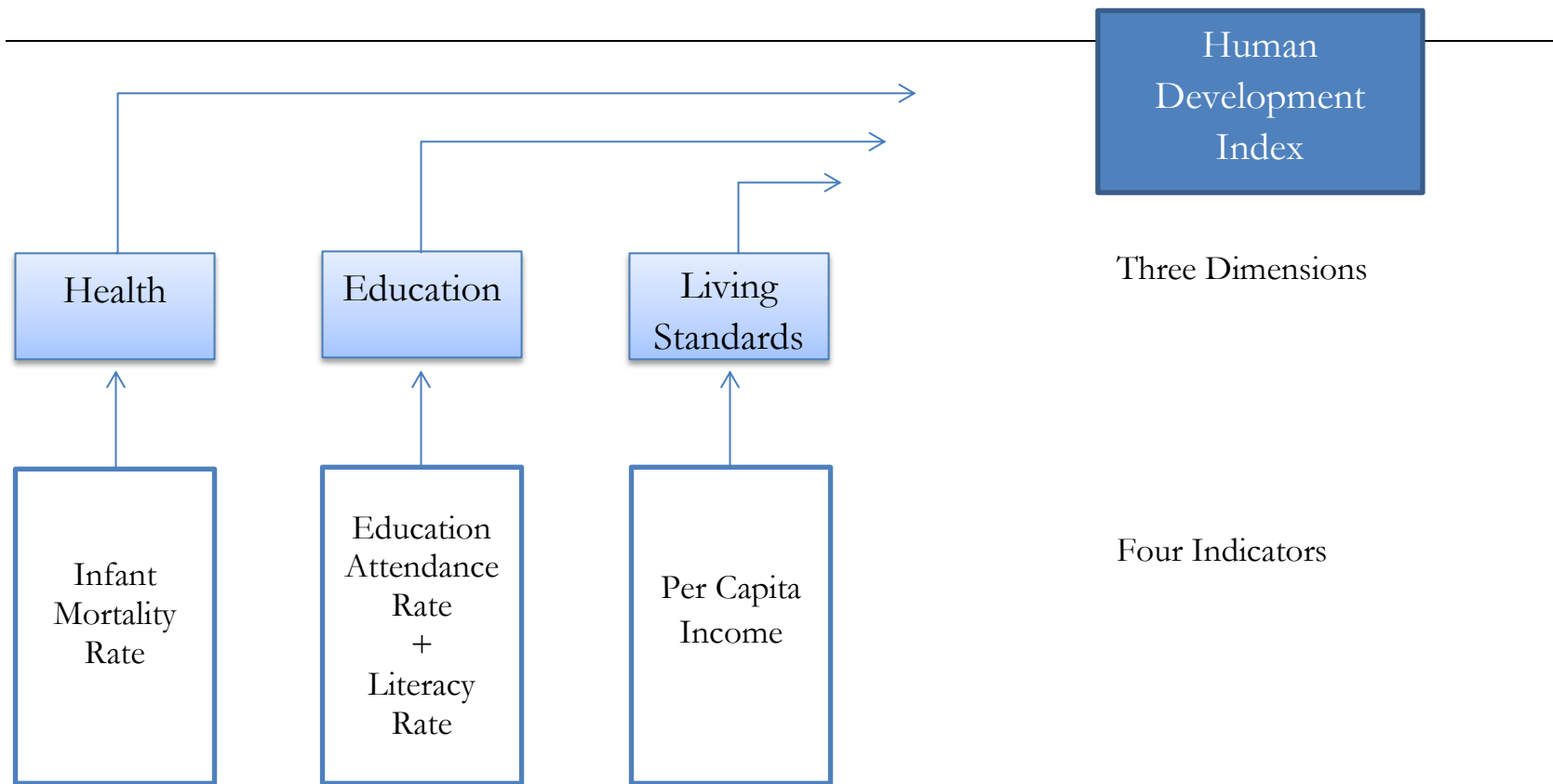
Taylor et al. (1996) recognize two factors that stand in the way of effective RLD: (1) inadequate public services and infrastructure and (2) the absence of factor markets, namely rural credit markets, which hamper the possibility for sustained multiplier effects (Taylor et al. 1996:402). As the authors note, deficiencies in either of these two categories means that the migrants and their families assume the full load of turning savings into production (Durand and

Massey 1992, Taylor et al. 1996 and Grindle 1988; Quinn 2005). As George (1990) explains, individuals migrate "because of the lack of meaningful development in the first place. In the absence of policies designed to channel migrants' savings into productive investment, it is naive to expect migrants to behave very differently" (quoted in Taylor et al. 1996:402; George 1990:170). This point is reaffirmed by Calderón and colleagues (2008) who find that "...remittances are more effective in raising investment and enhancing growth in countries with higher levels of human capital, strong institutions, and good policy environments" (Calderón, Fajnzylber and López 2008:366).

RLD therefore appears to be a question of degree; that is, the degree to which remittances stimulate development depends on local and regional factors that have the potential to either incite or inhibit the multiplier effects of remittances in local communities. As a result, one might expect that in overcoming local barriers to RLD migrants and their communities would be wise to work with the Mexican government. The potential for such cooperation is illustrated in the three case studies outlined in Chapter 3. As these rural villages reveal, state-migrant cooperation has the potential to improve development outcomes in localities with high migration and entrenched poverty. Still, to my knowledge, no studies to date have empirically addressed whether or not the program 3x1 para migrantes actually improves development outcomes. Furthermore, no author to my knowledge has studied whether or not the 3x1 program improves development outcomes in comparison to traditional household remittances. In this chapter, I address these points of inquiry by analyzing how different forms of remittances affect human development outcomes across Guanajuato's 46 *municipios*.

Data and Methodology

The principle variable of interest in this chapter is the human development index (HDI). Figure 5.1 outlines the three dimensions and corresponding indicators used to calculate the HDI for Guanajuato's 46 *municipios*. As the figure indicates, the HDI measures health, education and income. The HDI is composed of development patterns logged by the Instituto Nacional de Estadística y Geografía (INEGI). The index is based on calculations made by the UNPD. The HDI ranges from 0 to 1, where 1 is highly developed and 0 is completely undeveloped. In Guanajuato, highly developed *municipios* approach .9, whereas largely underdeveloped *municipios* are closer to .5. (For additional information on the HDI index please see Appendix 8.)



Source: INEGI; United Nations Development Programme (UNDP).

Figure 5.1 Components of the Human Development Index

Table 5.1 illustrates the panel data used in this chapter. (For additional descriptive statistics please see Appendix 1.) As the far right column indicates, data was collected from a variety of sources. For the period 2002 to 2011, the mean *HDI* across the state's *municipios* was .77. Concerning health, *Infant Mortality Rate* is employed as an indicator of wellbeing. Across Guanajuato, from 2002-2011 there was an average of 21.9 deaths per 1,000 live births. This figure reduced substantially over the time period in question, falling to 14.9 deaths per 1,000 live births by 2010 (INEGI). Still, for the sake of comparison, in 2010 Mexico's national infant mortality rate was 14.4 deaths per 1,000 live births. In the U.S., in turn, there were only 4.29 deaths per 1,000 live births (Mathews et al. 2012:1).

Regarding education, the variables *Education Attendance Rate* and *% Pop Illiterate* are used as indicators of education levels. From 2002 to 2011 nearly 62 percent of children and young adults ages 6 to 24 were attending school. By 2010 school attendance rates in Guanajuato were 65 percent for children ages 6 to 24. In turn, concerning illiteracy rates, from 2002 to 2011 about 13.6 percent of Guanajuato's population was unable to read or write. In comparison, in 2010 in the U.S. less than 1 percent of children age 15 and over was unable to read and write. Taken together, these variables indicate that while education levels in Guanajuato improved during the time period in question, basic education is far from universal.

Finally, in regard to living standards, per capita income is used as an indicator of economic wellbeing. Over the ten-year period included in this study *GDP per Capita Municipal* averaged slightly over \$7,000. By 2010 GDP per capita in Guanajuato was calculated at \$8,834. However, at the national level GDP per capita was estimated at \$14,400 in 2010. In the U.S., on the other hand, GDP per capita for the same year was estimated at \$48,500. These stark

contrasts help clarify why many residents from Guanajuato migrant to stronger regional economies in search of work, and occasionally, to the U.S.

Concerning independent variables, the variable *3x1 per capita* is calculated as the total amount of 3x1 investments made in each respective *municipio* divided by the *municipio*'s population. Similar to GDP per capita, 3x1 per Capita provides a more accurate means of comparing 3x1 investments across *municipios*. In turn, the variables *Electoral Participation* and *Electoral Competition* are generated in order to evaluate the relationship between electoral trends and development. Data for these two variables come from the organization Proposals to Change Mexico (CIDAC) and the Federal Electoral Institute (IFE). Electoral participation is simply a measure of the percentage of eligible voters that turn out to vote in elections. Electoral competition, in turn, is measured by the Nb index for party competition, which was designed by Dunleavy and Boucek in 2003.²⁷

The variable *% Homes with Remittances* represents the percentage of homes in a given *municipio* that receive migrant remittances. In turn, the variable *% of Homes with Return Migrants* measures the percentage of homes that had a migrant that returned to Mexico during the previous census and stayed. Data for these variables was collected from the National Population Council (CONAPO). In addition, the independent variable *Municipal Party* is created to account for political party differences across *municipios*, which permits for the evaluation of potential relationships between political parties and human development patterns. The variable is constructed as a dummy variable, such that PAN = 0 and other parties = 1. This variable is coded as a dummy due to the fact that during the period under analysis PAN controlled over 60 percent of the state's municipal presidencies. PRI, in turn, controlled nearly 30 percent.

²⁷ Note: For more information on the calculation of the Nb index please see the data and methodology section in Chapter 4.

Moreover, my main interest in this particular variable is in analyzing the degree to which partisan trends impact human development patterns in Guanajuato. Given this, a dummy variable will lend to easier interpretation of the regression coefficients. The coding of this variable is calculated based on information provided by CIDAC. The variable *Rural-Urban* is generated in order to control for population differences across *municipios*. A *municipio* was marked as “rural” if the total population is less than 50,000 inhabitants and “urban” if the population is greater than 50,000. The variable Election Year is a dummy variable (1 = election year; 0 = non-election year) that allows for the evaluation of any potential relationship between human development patterns and election cycles. Finally, in order to control for municipal spending on public works projects, the variable *Public Work Spending per Capita* is included. This variable is a measure of the amount of money *municipios* spend on public works projects in a given year divided by municipal population. Public works spending per capita averaged 923 pesos across the ten-year period 2002-2011. *Ramo 26 per Capita* and *Ramo 33 per Capita* measure federal transfers to municipal governments.²⁸ These variables permit for an evaluation of the relationship between decentralization of federal funds and municipal development. As the reader will note, Ramo 26 and Ramo 33 accounted for 768 pesos of per capita spending. While these funds are not necessarily exclusively used on public works projects, they do represent the most important source *municipios* have to support investments in public infrastructure. Data for this variable comes from SNIM and INEGI. (For additional descriptive statistics concerning these two variables please see Appendices 9-10.) In the pages that follow I present a series of graphs and tables that examine the variables presented in Table 5.1 in more detail. I begin by taking a closer look at the relationship between human development patterns and household remittances

²⁸ Note: For additional information on Ramo 26 and 33 please see Chapter 2.

Table 5.1 Definitions and Description of Variables Included in Regression Analysis

Variable	Mean	S.D.	Data Source
HDI	.77	.05	INEGI
Infant Mortality Rate	21.9	8.01	INEGI
Education Attendance Rate	61.84	4.06	INEGI
% Pop Illiterate	13.67	4.75	INEGI
GDP per Capita Municipal	7057.92	2372.76	INEGI
3x1 per Capita	42.68	74	SEDESHU
Electoral Participation	51.34	7.21	CIDAC; IFE
Electoral Competition	2.98	.87	CIDAC; IFE
% Homes Remittances	13.29	6.69	CONAPO
% Homes Return Migrants	4.67	2.33	CONAPO
Municipal Party	.39	.48	CIDAC
Municipal Population (rural = 1; urban = 0)	.45	.49	INEGI
Election Year (2003, 2006, 2009)	--	--	IFE
Public Work Spending per Capita	923.96	1031.09	SNIM; INEGI
Ramo 26 per Capita	464.13	443.91	SNIM
Ramo 33 per Capita	304.78	344.76	SNIM

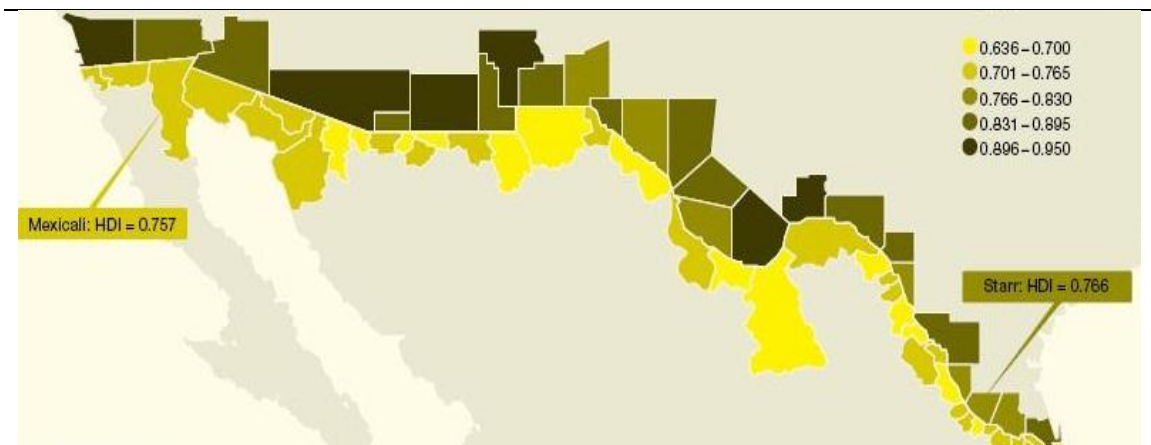
Source: UNDP, CIDAC, CONAPO, IFE, INEGI, SEDESHU and SNIM.

¹ Figures in Mexican Pesos.

Descriptive Statistics of Remittance-led Development in Guanajuato, Mexico

Figure 5.2 illustrates human development disparities as evident on the U.S.-Mexico border. The map, which is borrowed from the United Nation's 2009 Development Report, clearly reveals the social and economic motives underpinning migration trends between the two nations. The map visualizes what has been evident to many Mexican citizens for the better part of a century: Migrating from Mexico the U.S. has the potential to drastically improve one's quality of life. As the authors of this report point out, "A pattern that jumps out is the strong correlation between the side of the border that a place is on and its HDI. The lowest HDI in a United States border county (Starr County, Texas) is above even the highest on the Mexican side (Mexicali, Baja California). This pattern suggests that moving across national borders can greatly expand the opportunities available for improved well-being" (UNDP 2009:1) Moreover, it is

worth keeping in mind that counties on the border region in the U.S. are among the poorest in the nation. In turn, Mexico's northern states makeup some of the country's most developed regions. With such stark disparities divided by a mere line in the sand, it is not at all surprising that so many Mexicans have opted to migrate to the U.S. in recent decades. Nonetheless, and most important for the study at hand, this map also demonstrates that an improvement in human development levels in Mexico would likely reduce the number of citizens migrating to the U.S. Moreover, in theory, remittances could contribute to this development, and thus, facilitate a reduction in migration. The goal of this chapter is to tease out the degree to which this actually takes place in practice.



Source:UNDP 2009:1.

Figure 5.2 Human Development on the Border (2000)

Figure 5.3 illustrates HDI levels across Mexico. As is evident, development levels are relatively high (alto) in northern states, moderate (medio) in central states and low (bajo) in southern states, with the exception of the Yucatan peninsula. The Federal District, which is located in central Mexico, is the country's most developed area. Guanajuato falls in the middle, registering development levels that are higher than many of the southern states but substantially

lower than most northern states. Still, like elsewhere in Mexico, HDI levels in Guanajuato have improved a great deal in recent decades.



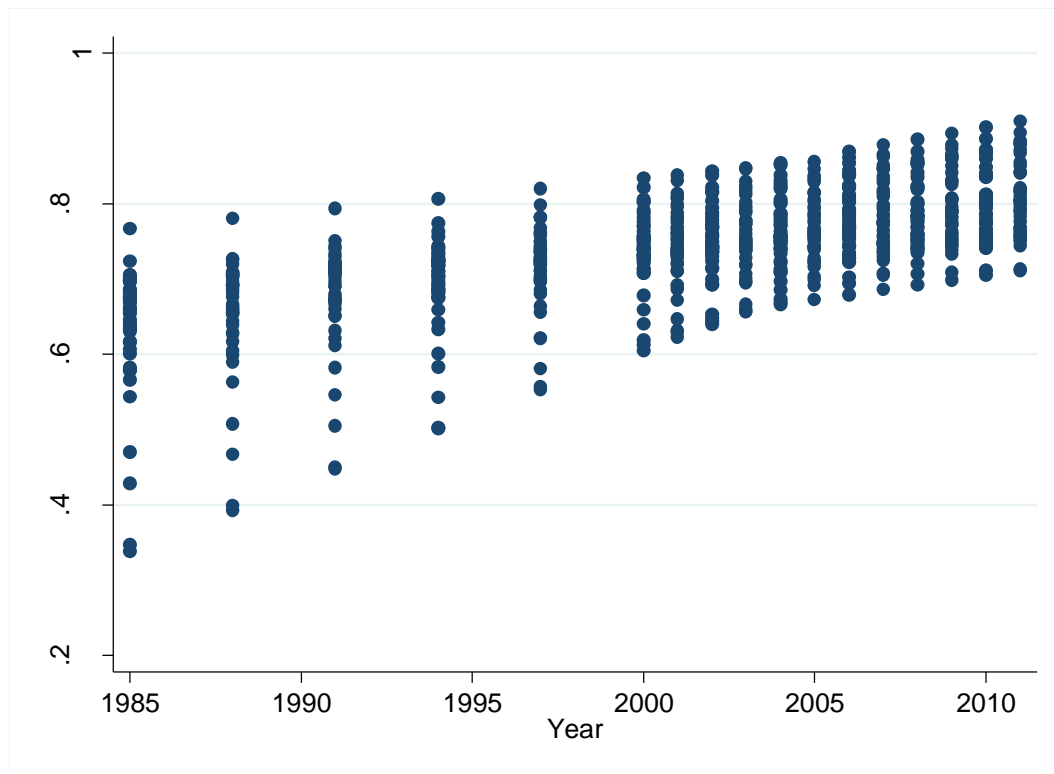
Source: INEGI.

Figure 5.3 Human Development in Mexico

Graph 5.1 plots human development from 1985 through 2010 in Guanajuato's 46 *municipios*. As the reader will note, HDI has clearly improved in Guanajuato over the last three decades. In 1985 none of Guanajuato's *municipios* surpassed .8 on the HDI scale. In turn, by 2010 half of the state's *municipios* had exceeded the .8 level and all *municipios* registered HDI levels well above the .6 level. In comparison, in 1985 roughly half of the *municipios* fell below the .6 mark and several reported HDI levels of less than .4. Moreover, as the reader will note, inequality in

terms of HDI has drastically decreased over the last 25 years; this trend is evidenced by the reduced distance between the most developed and least developed *municipios* in Guanajuato over time.

Graph 5.1 Human Development in Guanajuato 1985-2010

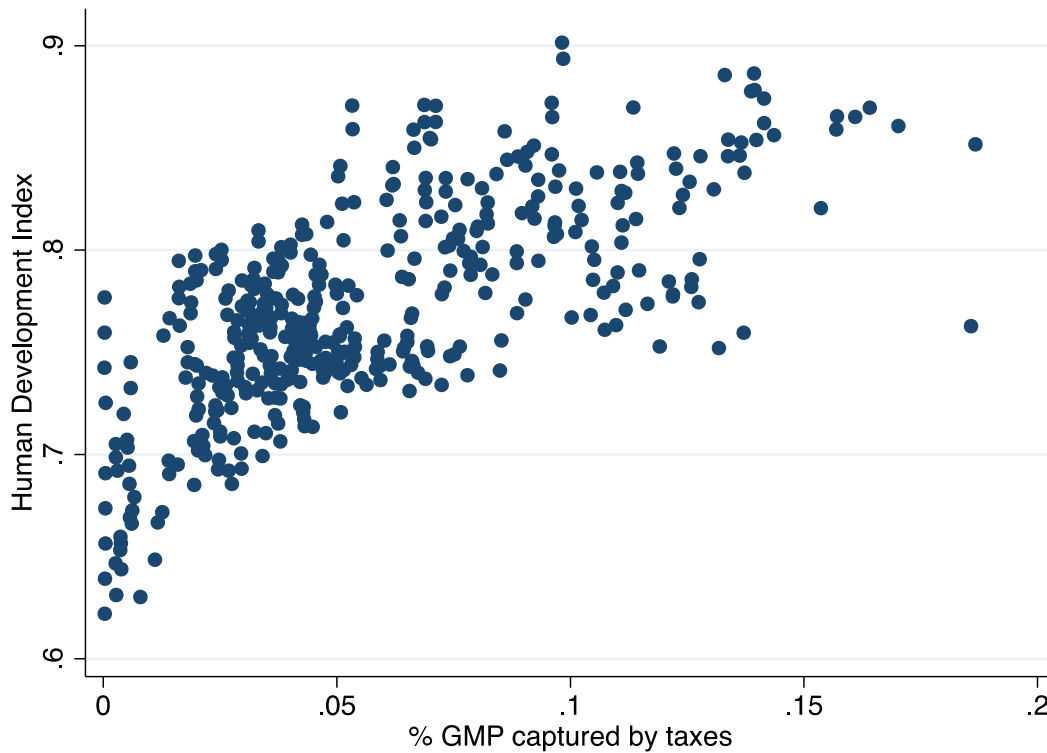


Source: Author; data from United Nations Development Programme (UNDP).

Development requires funding, and from the standpoint of local governments, the most important source of funding for development projects is taxation. As Graph 5.2 clearly demonstrates, there is a strong positive relationship between HDI and the percentage of municipal income that local governments are able to capture in the form of taxes. That is, as HDI improves, officials appear to become much more effective in capturing taxes. In theory,

this has the potential to create a virtuous circle, in that *municipios* that capture more taxes are able to re-invest more resources in society and as a result improve levels of human development.

Graph 5.2 Human Development and Taxes in Guanajuato

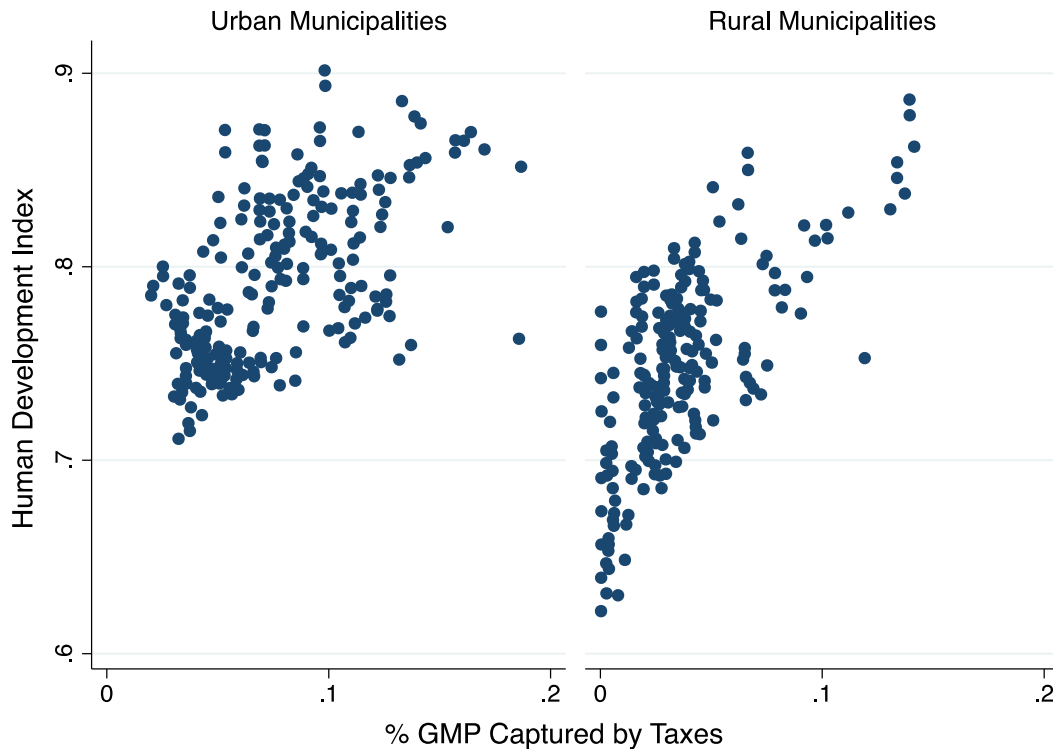


Source: Author; INEGI and SNIM

Graph 5.3 points to the potential importance of migrants in rural communities. As the graph indicates, rural municipal governments capture far less taxes than urban *municipios*. As a result, remittances represent a potentially important alternative source of income for rural municipal governments. In this sense, for *municipios* with small populations, the 3x1 program represents a quasi-tax system in which municipal governments are able to capture a small percentage of migrant remittances and channel them towards specific development projects within local communities. Thus, *municipios* that are able to capture more remittances through the 3x1 program are presented with a unique opportunity to advance development projects that they

otherwise would not have the ability to get off the ground. Thus, in theory, one might expect that 3x1 investments would share a positive relationship with human development levels across Guanajuato's *municipios*.

Graph 5.3 Human Development and Taxes in Rural and Urban Municipios



Source: Author; INEGI and SINEM

HDI clearly varies across *municipios* in Guanajuato. Given this, one might expect that HDI levels also differ according to the political party governing respective *municipios*. Table 5.2 illustrates human development patterns by political party for the period 2002 through 2011. As the table demonstrates, PAN governed *municipios* average an HDI score of .78, whereas PRI *municipios* averaged .75. PRD *municipios* average the highest HDI score at .79. Concerning the individual indicators of the HDI index, both PAN and PRD *municipios* average an infant

mortality rate of 20 deaths per 1,000 births. PRI, on the other hand, registers a slightly higher rate of 23 deaths per 1,000 births. Similarly, concerning literacy, in both PAN and PRD *municipios* 86 percent of the population is literate. PRI *municipios*, in turn, average a literacy rate of 83 percent. Despite these differences, all *municipios*, regardless of governing party, average school attendance rates of 62 percent. Finally, concerning per capita income, individuals living in both PAN and PRI *municipios* average a yearly income of roughly \$7,000. People living in PRD governed *municipios*, however, average an income of nearly \$9,500 dollars per year. Still, it is important to keep in mind that for the time period in question PAN and PRI controlled the vast majority of municipal governments. In fact, as Table 5.3 indicates, PAN governed 61 percent of municipal presidencies during this time period, followed by PRI with 27 percent and PRD with 5 percent. Given this, the most meaningful differences in Table 5.2 are those between PAN governed *municipios* and PRI *municipios*. Although the variance in terms of HDI is slight in absolute terms, the difference is nonetheless meaningful. As the table indicates, in PAN *municipios* children are more likely to live past their first birthday and they are subsequently more likely to be literate in their adult lives. Moreover, individuals living in PAN *municipios* earn just over \$100 more than their counterparts in PRI governed *municipios*. Put simply, for the period 2002 to 2011 PAN *municipios* outperformed PRI *municipios* in terms of human development.

Table 5.2 Human Development Performance by Political Party

Party (% of <i>municipios</i>)	HDI	Infant Mortality Rate	Pop Literate	School Attendance	Per Capita Income
PAN (61 %)	.78	20 per 1,000	86%	62%	\$7048
PRI (27%)	.75	23 per 1,000	83%	62%	\$6939
PRD (5%)	.79	20 per 1,000	86%	62%	\$9477

Source: UNDP; INEGI.

As Table 5.3 reveals, development trends in Guanajuato also vary significantly as one moves from urban *municipios* to rural *municipios*. In 2011, for example, urban *municipios* maintained an average HDI score of .82, compared to .78 in rural *municipios*. Urban *municipios* had less infant mortalities (13.27 vs. 19.84), a more literate population (89.59 vs. 85.75), higher school attendance rates (65.98 vs. 64.78) and a higher per capita index score (.74 vs. .73). To be clear, urban *municipios* are more developed than rural *municipios* in Guanajuato. That said, from 2001 to 2011 rural *municipios* developed at a higher rate than urban *municipios*. That is, while rural *municipios* averaged an HDI of .71 in 2001, they improved to a score of .78 in 2011, for an overall improvement of .07. Moreover, rural *municipios* held pace with urban *municipios* in terms of improvements in infant mortality rates, literacy and school attendance. However, in terms of per capita income, rural *municipios* improved significantly more than urban *municipios* during the last decade, increasing their index score by .10 compared to the .02 increase averaged across urban *municipios*. Given this, one might expect that as access to income improves in rural communities, individuals living in these areas will slowly gain access to improved health care and education.

Table 5.3 Human Development Performance by Urban/Rural *Municipios*

Municipio Type/Year	HDI	Infant Mortality Rate	Pop Literate	School Attendance	Per Capita Income (index)
Urban (2011)	.82	13.27	89.59	65.98	.74
Urban (2001)	.76	25.47	86.01	58.29	.72
<i>Difference</i>	<i>.06</i>	<i>-13.20</i>	<i>3.58</i>	<i>7.69</i>	<i>.02</i>
Rural (2011)	.78	19.84	85.75	64.78	.73
Rural (2001)	.71	29.08	82.12	58.39	.63
<i>Difference</i>	<i>.07</i>	<i>-9.24</i>	<i>3.63</i>	<i>6.39</i>	<i>.10</i>

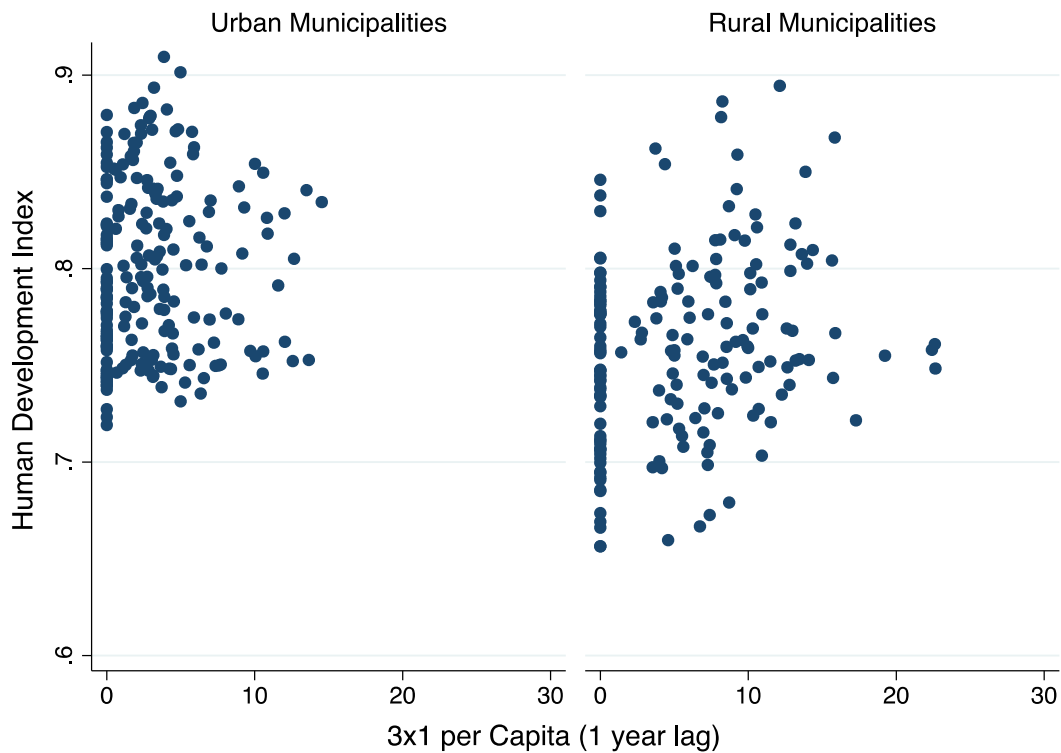
Source: UNDP; INEGI.

The results illustrated in Table 5.3 indicate that rural *municipios* developed at a slightly quicker pace from 2001 to 2011 than their urban counterparts. Still, it is important to keep in mind that this does not necessarily indicate that rural *municipios* outperformed urban *municipios* in terms of development. Rather, these trends reveal that rural *municipios* finally demonstrated the capacity to catch-up with the development levels evident in Guanajuato's urban *municipios*. Accounting for the factors that drove this rapid development is the central goal of this chapter. One potential catalyst of development, in both subtypes of *municipios*, but especially in rural *municipios*, are remittances and 3x1 para migrantes investments.

Graph 5.4 illustrates the relationship between human development levels and 3x1 per capita measures in the previous year. As is evident, 3x1 per capita appears to have a positive effect on HDI levels, especially in rural *municipios*. This implies, as suggested above, that 3x1 investments provide cash strapped governments in sparsely populated *municipios* with an important tool for investing in development initiatives, and most importantly, the program

appears to work, in so much that *municipios* with relatively more 3x1 investments in the previous year have improved HDI levels in the subsequent year. (Regression analysis in the subsequent section of this chapter will examine this trend with more rigor.)

Graph 5.4 Human Development and 3x1 per Capita



Source: Author; INEGI and SEDESOL.

Table 5.4 presents a series of cross-tabulations between key dependent variables and independent variables of interest. The correlations are across all *municipios*. Correlations across only rural *municipios* are included in parenthesis. Statistically significant correlations are denoted by asterisks ($P < .05$). Although tentative in nature, several points of interest emerge from the table. To begin, literacy rates, school attendance rates, infant mortality rates and per capita income all share strong positive relationships with HDI levels across Guanajuato's 46 *municipios*. Still, this relationship is notably weaker in rural *municipios*. This difference is most evident in the

case of the relationship between school attendance rates and HDI. In urban *municipios* school attendance rates and HDI levels have a significant correlation of .68. This relationship holds in rural *municipios* but the correlation is substantially weaker at .14. This difference suggests that quality of education in rural *municipios* may be lower than in urban *municipios*, and as a result, even when children in rural areas attend school as frequently as urban children, may not be as well off as their urban counterparts. In turn, 3x1 per capita levels do not correlate with HDI levels in urban *municipios*. However, in rural *municipios* there is a significant correlation of .25 between HDI and 3x1 per capita. This finding implies that if 3x1 investments affect HDI levels, they most likely do so in relatively more rural *municipios*. Moreover, and most important for this study, this correlation suggest that 3x1 investments may indeed improve human development outcomes in rural *municipios* across Guanajuato. This relationship holds across all indicators of HDI. That is, 3x1 investments in rural *municipios* appear to improve literacy rates, school attendance rates, infant mortality and per capita income. In turn, in both urban and rural *municipios* the percentage of homes receiving remittances has a negative effect on HDI levels. Still, this effect is notably less in rural *municipios*. These trends hold across each of the individual indicators of HDI. In the previous chapter it is found that return migrants play a substantial role in the 3x1 development process. Given this, one would suspect that they might also play an important role in municipal development. However, as the table below indicates, return migrants appear to have a slightly negative effect on HDI levels in urban *municipios*. Still, this effect disappears in rural *municipios*, where return migrants appear to have a null effect on HDI and its individual indicators.

Table 5.4 Correlations Between HDI and Key Independent Variables

	HDI	% Literacy	% School Attendance	Infant Mortality Rate	Per Capita Income	3x1 per capita (1 yr lag)	% Homes Remittances (1 yr lag)	% Homes Return Migrants (1 yr lag)
HDI	1 (1)							
% Literacy	.89* (.75*)	1 (1)						
% School Attendance	.68* (.14*)	.51* (-.18*)	1 (1)					
Infant Mortality Rate	.93* (.89*)	.76* (.77*)	.65* (.15*)	1 (1)				
Per Capita Income	.88* (.79*)	.79* (.34*)	.47* (.06)	.67* (.48*)	1 (1)			
3x1 per capita (1 yr lag)	.03 (.25*)	-.07 (.17*)	.04 (.15*)	.13 (.28*)	-.07 (.13*)	1 (1)		
% Homes Remittances (1 yr lag)	-.55* (-.19*)	-.71* (-.06)	-.33* (-.37*)	-.42* (-.12)	-.52* (-.19*)	.12* (.11)	1 (1)	
% Homes Return Migrants (1 yr lag)	-.21* (.03)	-.31* (.02)	-.006 (-.05)	-.18* (-.03)	-.30* (-.09)	.34* (.24*)	.62* (.57*)	1 (1)

Note: Correlations marked * are statistically significant at the .05 level or beyond.

Taken together, the trends outlined above suggest a number of testable hypotheses:

- 1) All things being equal, 3x1 investments share a positive relationship with HDI.
 - i. This hypothesis relates to the expectation that 3x1 projects lead to measurable development across Guanajuato's *municipios* and thus would be anticipated to positively impact HDI levels.
- 2) 3x1 investments contribute to lower infant mortality rates.
 - i. This hypothesis is grounded in the fact that 3x1 investments improve local infrastructure—including electricity, roads and healthcare institutions—which in turn would be expected to have a positive effect on the quality of local healthcare as well as access to it.
- 3) 3x1 investments contribute to higher attendance rates within local school districts.
 - i. Here it is expected that improved infrastructure would facilitate local transportation routes, and thus, potentially, foster higher attendance rates within local schools. Moreover, it is expected that improved education resources—new buildings, electricity, running water, etc.—would motivate students to attend school more frequently.
- 4) 3x1 investments help reduce illiteracy rates across *municipios*.
 - i. As noted above, it is expected that improved physical infrastructure will contribute to higher attendance rates within local schools. Given this, one might also expect that education levels would improve and consequently illiteracy rates would fall within *municipios* with relatively more 3x1 investments.
- 5) 3x1 investments correlate with higher levels of per capita income.
 - i. If 3x1 investments contribute to improved healthcare and higher levels of human capital, one might also expect that 3x1 investments would improve per capita income over time.
- 6) 3x1 investments share a negative relationship with migration rates
 - i. This hypothesis emerges from the fact that 3x1 investments target the very conditions that push people to migrate in the first place. Given this, it would be expected that in time *municipios* with relatively more 3x1 investments would experience a decrease in emigration.

In the section that follows I empirically evaluate these hypotheses via regression analysis.

Regression Analysis of Human Development in Guanajuato, Mexico

In the space that follows I subject the trends outlined in the previous section to the scrutiny of regression analysis. Table 5.5 analyzes the impact of select independent variables on human development levels across Guanajuato's 46 *municipios*. χ^2 tests show that regressions are significant across all four models. I run fixed-effects estimations in order to determine the effect of independent variables on human development in the state of Guanajuato. The model can be specified as:

$$HDI_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, HDI is the dependent variable observed for *municipio* i at time t . x_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.²⁹

The variable *3x1 per capita* is significant across all four models, implying that 3x1 investments have a positive effect on human development trends in the ensuing year. The coefficient for 3x1 per capita is small at .00002; still, it is important to note that the HDI runs from 0 to 1 and in general development changes very slowly over time. Thus, despite a relatively small coefficient, this finding is substantially quite significant. The independent variable *% Homes with remittances* is also significant across all models but in contrast with 3x1 investments, household remittances share a negative relationship with human development in the ensuing year. The coefficient for this variable is relatively large, ranging from -.0019 in Model I to -.0014 in Model IV. This finding corroborates the trends found in the previous section, indicating that household remittances alone repress human development at the municipal level in Guanajuato.

²⁹In contrast with the Random Effects (RE) model in which the unobserved α_i is independent of x_{it} , in the Fixed Effects (FE) model α_i correlates with the matrix x_{it} . As a result, the econometrician cannot observe α_i and thus α_i cannot be directly controlled for.

On the other hand, the variable *% Homes with return migrants* shares a strong positive relationship with human development. Taken together, these initial three variables indicate that remittances have the potential to improve human development outcomes at the municipal level. However, it appears that this potential is only realized in those cases in which migrants and their communities work in conjunction with the state.

Although remittances are clearly a major source of income for *municipios* across Guanajuato, they are hardly a replacement for economic production and government taxation. Given this, one would expect that the *municipios* that capture a larger percentage of municipal production in the form of taxes would have relatively better development outcomes. The variable *% Municipal Production Taxed* supports this notion, reporting positive and relatively large coefficients across each model. Still, the variable is only statistically significant in Model IV ($P < .1$). One possible explanation for this outcome is the fact that taxation does not necessarily indicate government investment in social welfare. For this reason, the variables *Public Works per Capita*, *Ramo 26* and *Ramo 33* may be more meaningful in that, like 3x1 para migrantes investments, these variables measure government allocations towards specific ends. As the table indicates, each of these variables has a positive impact on human development. This is an important finding, specifically as it concerns the latter two variables Ramo 26 and Ramo 33, which are both key components in the government's effort to decentralize funding across Mexico. Thus, at least in the state of Guanajuato, it appears that decentralization efforts have been fruitful in so much that they have had a positive impact on human development. It is very difficult, of course, to determine the degree to which human development indicators would have improved in the absence of decentralization. Still, given the dearth of local resources prior to the decentralization of funding in 1997, it is very hard to imagine that local development would have

progressed as much under the traditional federal-centric system. Finally, *Per Capita Income* shares a positive relationship with HDI, implying that human development improves more in *municipios* with higher per capita income. This finding is related to the relationship between *Municipal Population* and *HDI*, which indicates that human development is relatively worse in rural *municipios* when compared to their urban counterparts.

Table 5.5 highlights a number of interesting findings concerning the relationship between remittances and development in Guanajuato. Nonetheless, it is important to keep in mind that the HDI is an index composed of four distinct indicators, including: infant mortality rates, literacy rates, school attendance rates and per capita income. Thus, although the previous regression analysis finds that 3x1 investments improve development outcomes in Guanajuato, it is quite likely that migrant projects affect the individual indicators of human development differently. For that reason, in the space that follows I explore in turn the relationship between 3x1 investments and each of the four indicators of HDI. I begin with infant mortality rates.

Table 5.6 reports results from the regression of select independent variables on infant mortality rates. χ^2 tests show that regressions are significant across all four models. As in the previous model, I run fixed-effects estimations as a means of determining the effect of independent variables on infant mortality rates in the state of Guanajuato. The model is specified as:

$$\text{Infant Mortality Rates}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, *Infant Mortality Rates* is the dependent variable observed for *municipio* i at time t and \mathbf{x}_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.

Table 5.5 Regression Analysis of Human Development in Guanajuato

HDI	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	.00002*** (.00001)	.00002* (.00001)	.00001+ (.00001)	.00002** (.00001)
% Homes with remittances (1 year lag)	-.0019*** (.0004)	-.0019*** (.00001)	-.0015*** (.0003)	-.0014*** (.0003)
% Homes with return migrants (1 year lag)	.012*** (.0006)	.009*** (.0008)	.008*** (.0008)	.008*** (.0008)
% Municipal Production Taxed (1 year lag)	.055 (.064)	.033 (.063)	.071 (.059)	.079+ (.058)
Public Works per Capita (1 year lag)	.000006*** (.000001)	.000002** (.000001)	.000009*** (.000001)	.000009*** (.000001)
Ramo 26 (1 year lag)	-- (--)	.00003*** (.000007)	.00002*** (.000007)	.00002** (.000007)
Ramo 33 (1 year lag)	-- (--)	.000005** (.000002)	.000004** (.000002)	.000004** (.000002)
Per Capita Income (1 year lag)	-- (--)	-- (--)	.00001*** (.000001)	.00001*** (.000001)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	-.028*** (.008)
Constant	.74*** (.006)	.74*** (.007)	.73*** (.007)	.74*** (.007)
R ²	.58	.61	.65	.67
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

The variable *3x1 per capita* is significant in each model. In Model IV, for example, as *3x1 per capita* increases 1000 pesos infant mortality falls by 6 in the ensuing year, indicating that for every 1,000 births 6 fewer children die before their fifth birthday. The independent variables *% Homes with remittances* is also significant across all four models. The coefficient is positive in each model, indicating that for a 10 percent increase in household remittances infant mortality rates at the municipal level increase by 5. This does not necessarily mean that remittances do not help improve the healthcare of some individuals. In fact, they do. During my visits to the case study towns outlined in Chapter 3 I met countless individuals with medical ailments that they were able to receive treatment for thanks in large part due to the money family members sent back from the U.S. Still, there were many other individuals in these same communities who were not receiving remittances. As a result, in the case of an emergency, these individuals would have lacked the ability to foot the bill at a private clinic or in the case of a public health care center, they would have had trouble paying for the medicine after the doctor gave them a prescription. Put simply, remittances alone do not appear to be a good substitute for public investments in healthcare. Concerning the variable *% Homes with return migrants*, there is a strong negative relationship between the percentage migrants who return from the U.S. and infant mortality rates. Specifically, as Model IV indicates, for a 10 percent increase in return migrants infant mortality rates fall in the ensuing year by an astounding 13 deaths per 1,000 births. This finding reaffirms the apparent importance of migrants themselves in community development across Guanajuato's *municipios*.

Migrants and remittances may indeed play an important role in community development, especially in Guanajuato's rural *municipios*. Still, as previously demonstrated, remittances are hardly a substitute for public investment in local communities. This point is made evident by the

variable *% Municipal Production Taxed*, which shares a strong negative relationship with infant mortality rates. In Model IV, for example, for every 1 percent increase in the taxation of municipal production infant mortality rates fall by 16. This finding clearly demonstrates that the municipal government's ability to improve social conditions is in large part a function of its ability to tax municipal income. With this in mind, it is somewhat surprising that neither *Ramo 26* nor *Ramo 33* report significance in the four models outlined in Table 5.6. If nothing else, this speaks to the relative importance at the municipal level of migrant investments made through the 3x1 para migrants program in Guanajuato. In turn, the variable *Per Capita Income* is significant and implies that as per capita income increases 1000 pesos infant mortality rates fall by 1 among every 1,000 births. Finally, the variable *Municipal Population* is significant and shares a strong positive relationship with the dependent variable. In Model IV, for example, rural *municipios* have 8 more infant mortalities than urban *municipios*. Given that migrants are predominantly from rural areas, this finding again highlights the potential importance of 3x1 investments across Guanajuato's rural *municipios*.

Table 5.7 displays the results from the regression of select independent variables on school attendance rates. χ^2 tests show that regressions are significant across all four models. Again, in this model I run fixed-effects estimations as a means of determining the effect of independent variables on school attendance rates across Guanajuato's *municipios*. The model is specified as:

$$\text{School Attendance Rates}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, *School Attendance Rates* is the dependent variable observed for *municipio* i at time t and \mathbf{x}_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.

Table 5.6 Regression Analysis of Infant Mortality Rates in Guanajuato

Infant Mortality Rate	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	-.005** (.002)	-.005** (.002)	-.005** (.002)	-.006*** (.002)
% Homes with remittances (1 year lag)	.58*** (.075)	.57*** (.075)	.54*** (.075)	.52*** (.073)
% Homes with return migrants (1 year lag)	-1.69*** (.12)	-1.49*** (.15)	-1.34*** (.16)	-1.38*** (.15)
% Municipal Production Taxed (1 year lag)	-12.66 (11.61)	-11.04 (11.61)	-14.43+ (11.52)	-16.88* (11.17)
Public Works per Capita (1 year lag)	-.0009 (.0002)	-.0007*** (.0002)	.0003 (.0004)	.0002 (.0004)
Ramo 26 (1 year lag)	-- (--)	-.002 (.001)	-.001 (.001)	-.001 (.001)
Ramo 33 (1 year lag)	-- (--)	-.0007 (.0004)	-.0006 (.0004)	-.0005 (.0004)
Per Capita Income (1 year lag)	-- (--)	-- (--)	-.001*** (.003)	-.001*** (.003)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	7.82*** (1.63)
Constant	22.83*** (1.22)	23.02*** (1.21)	23.96*** (1.24)	20.66*** (1.38)
R ²	.50	.51	.52	.55
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

Table 5.7 Regression Analysis of School Attendance in Guanajuato

School Attendance Rates	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	.006*** (.002)	.006*** (.002)	.006*** (.002)	.007*** (.002)
% Homes with remittances (1 year lag)	-.42*** (.06)	-.42*** (.06)	-.44*** (.06)	-.43*** (.06)
% Homes with return migrants (1 year lag)	1.10*** (.09)	1.03*** (.12)	1.11*** (.12)	1.14*** (.12)
% Municipal Production Taxed (1 year lag)	-12.71+ (8.85)	-13.20* (8.89)	-14.85* (8.89)	-12.84+ (8.58)
Public Works per Capita (1 year lag)	.0004** (.0001)	.0004** (.0002)	.0009** (.0003)	.0009** (.0003)
Ramo 26 (1 year lag)	-- (--)	.0008 (.001)	.0014 (.001)	.0013 (.001)
Ramo 33 (1 year lag)	-- (--)	.0004 (.0003)	.0004 (.0003)	.0004 (.0003)
Per Capita Income (1 year lag)	-- (--)	-- (--)	-.0005* (.0003)	-.0006* (.0003)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	-6.51*** (1.25)
Constant	63.19	63.09	63.55*** (.96)	66.30*** (1.06)
R ²	.45	.45	.46	.50
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

Concerning Table 5.7, *3x1 per capita* has a positive effect on school attendance. Specifically, as *3x1 per capita* increases 1000 pesos school attendance increases between 6 to 7 percent in the following year. When placed in context, this finding makes more sense. For example, imagine for a moment a rural community with poor roads and limited access to electricity. In this community school attendance rates would be expected to be low due to the fact that students would have a relatively harder time getting to school and once at school the quality of education would be affected by the building's access to electricity. If, in this same community, *3x1* investments focused on improving the community's roads and expanding the electricity grid, one would expect school attendance rates to improve in subsequent years. One might expect to find a similar correlation between *% Homes with remittances* and school attendance rates; however, as Table 5.7 indicates, attendance rates actually fall as remittance levels increase. Although the mechanism driving this particular outcome is not entirely self-evident, this finding quite likely relates to the fact that in communities that receive high levels of remittances children grow up idolizing migrants. After all, in financial terms migrants are among the best off in their community. As a result, young men (and more recently women) look not to education as the key to a successful future but rather to the U.S. Under these circumstances, it is hardly surprising that *municipios* with relatively higher remittance rates have lower school attendance rates. Put simply, in high-migration regions one's rate of return on education is far less than a successful trip *al Norte*.³⁰ This finding relates to the relationship between *% Homes with return migrants* and school attendance rates. As Table 5.7 reveals, for every 10 percent increase in return migrants,

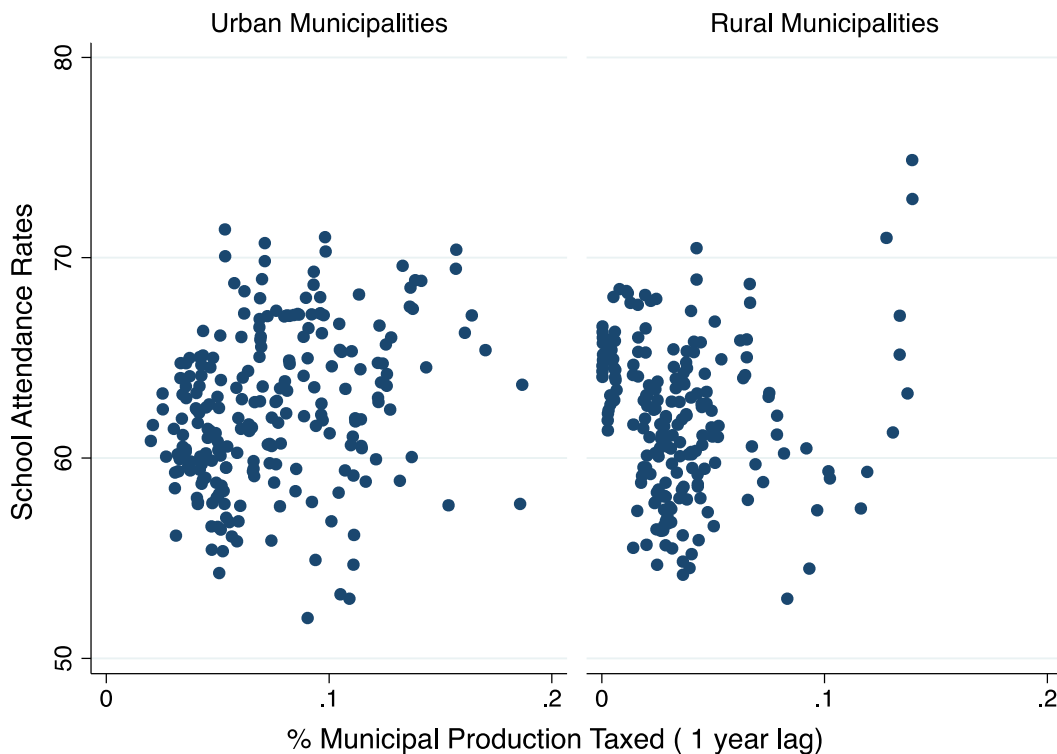
³⁰It is worth noting that in recent years the government of Guanajuato has begun funding English as a second language classes in rural communities throughout the state. There are at least two immediate goals driving this development. First, the government recognizes the need to provide an education that results in tangible skills. In the case of migrants, few skills are as important as English. Second, the government is well aware of the fact that migrants who speak English well often land better paying jobs in the U.S. and thus would be more likely to send back larger cash transfers to Guanajuato.

school attendance rates at the municipal level increase by 11 percent. There are perhaps multiple explanations for this but as the case studies from Chapter 3 illustrate, return migrants are highly aware of the value of education. This is particularly evident in the case of Don Ángel, who over the years has made an effort to improve education facilities in El Timbinal and in general demonstrates a genuine desire to help the youth of his hometown community.

The variable *% Municipal Production Taxed* indicates that education attendance rates fall by nearly 13 percent for every 1 percent increase in the taxation of municipal production. This finding may seem counterintuitive, however, as Graph 5.5 reveals this trend reflects a tendency that is apparent in other high migration regions in Mexico and around the world. That is, migrants are predominately from relatively rural areas but generally they are not the poorest of the poor. Rather, migrants tend to come from the rural areas that are a little better off than surrounding communities. This results from the fact that in order to migrate one needs enough money to pay for transportation to a more developed region or country. This principle applies to both legal migrants who are faced with thousands of dollars in fees and transportation costs, and illegal migrants, who are forced to pay border-crossers or *coyotes* hefty fees for their services. In this sense, Graph 5.5 reflects the fact that, at least initially, in *municipios* with high migration rates education attendance goes down as municipal capacity strengthens. This appears to result from the fact that as social conditions begin to improve in extremely poor areas more people begin to migrant, and specifically, more young men and women who would otherwise be in school begin to search out employment opportunities abroad. Related to this, it is also quite likely that in *municipios* with high migration rates young men and women look to the U.S. as the only viable option to get ahead in life, and thus, in these communities education takes a back seat to migration. Still, as Graph 5.5 illustrates, this trend is far less evident in urban *municipios*,

suggesting that there is a point of inflection at which increased taxation, which itself is a proxy for development, begins to encourage school attendance. Thus, one would expect that this trend would hold across Mexican states with high migration but would likely disappear in states with relatively higher levels of development.

Graph 5.5 School Attendance Rates by Municipal Taxation



Source: Author; INEGI and SEDESOL.

Regarding *Public Works per Capita*, Table 5.7 demonstrates that as public investments in infrastructure increase school attendance rates improve slightly in the ensuing year. To be precise, for every 1000 peso increase in public works per capita school attendance rates increase nearly 1 percent. Similarly, the coefficients for *Ramo 26* and *Ramo 33* indicate a positive trend; however, neither coefficient is statistically significant. In turn, *Per Capita Income* has a slightly

negative effect on school attendance rates in the ensuing year. Similar to municipal taxation, increases in per capita income appear to actually repress school attendance rates. However, again, it necessary to note that this trend is strongest in rural *municipios* with high migration rates and all but disappears in more developed urban *municipios* such as León and Celaya. Still, this trend is clearly the norm across Guanajuato's 46 *municipios*, reflecting the fact that the majority of the state's *municipios* continued to experience relatively high migration rates over the last decade. In time as municipal development improves and migration rates drop it would be expected that per capita income would stimulate higher school attendance rates. This interpretation is supported by the coefficient for *Municipal Population*, which indicates that rural *municipios* have school attendance rates that are 6.5 percent below the rates recorded in urban *municipios*.

Table 5.8 displays the results from the regression of select independent variables on literacy rates. χ^2 tests show that regressions are significant across all four models. As in the previous models, I run fixed-effects estimations as a means of determining the effect of independent variables on literacy rates across Guanajuato's *municipios*. The model is specified as:

$$Literacy\ Rates_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, *Literacy Rates* is the dependent variable observed for *municipio* i at time t and x_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.

Table 5.8 displays the results of regression analysis of the relationship between literacy rates and select independent variables in Guanajuato. The coefficient for *3x1 per capita* is positive but is statistically non-significant across all models. Taken into consideration with the results from Table 5.7, this finding indicates that while 3x1 investments do improve school attendance rates, they do not appear to affect literacy rates. Put simply, 3x1 investments increase the

likelihood of children going to school but they do not appear to influence the outcome of the learning process that takes place once they are there. Intuitively this makes sense when one considers the fact that 3x1 investments focus mainly on public works projects and rarely address issues of human capital, such as instructor capacity within primary and secondary schools. It is necessary to keep in mind, however, that in time improved infrastructure may very well help attract and retain more qualified instructors and thus contribute to improved education outcomes. Still, any development of this nature would be expected to take place over a long period of time and thus would be unlikely to be captured by the regression models presented here. Regarding the variable *% Homes with remittances*, all models report a strong negative relationship between household remittances and literacy rates. Specifically, concerning Model IV, for every 10 percent increase in the percentage of households receiving remittances literacy rates fall by roughly 1.3 percent. This finding echoes the results of Table 5.7, reemphasizing the fact that *municipios* with high migration tend to have weaker education outcomes due to the fact that a good number of young men and women drop out of the education system in order to migrate to larger cities in Mexico or to the U.S.

Table 5.8 Regression Analysis of Literacy Rates in Guanajuato

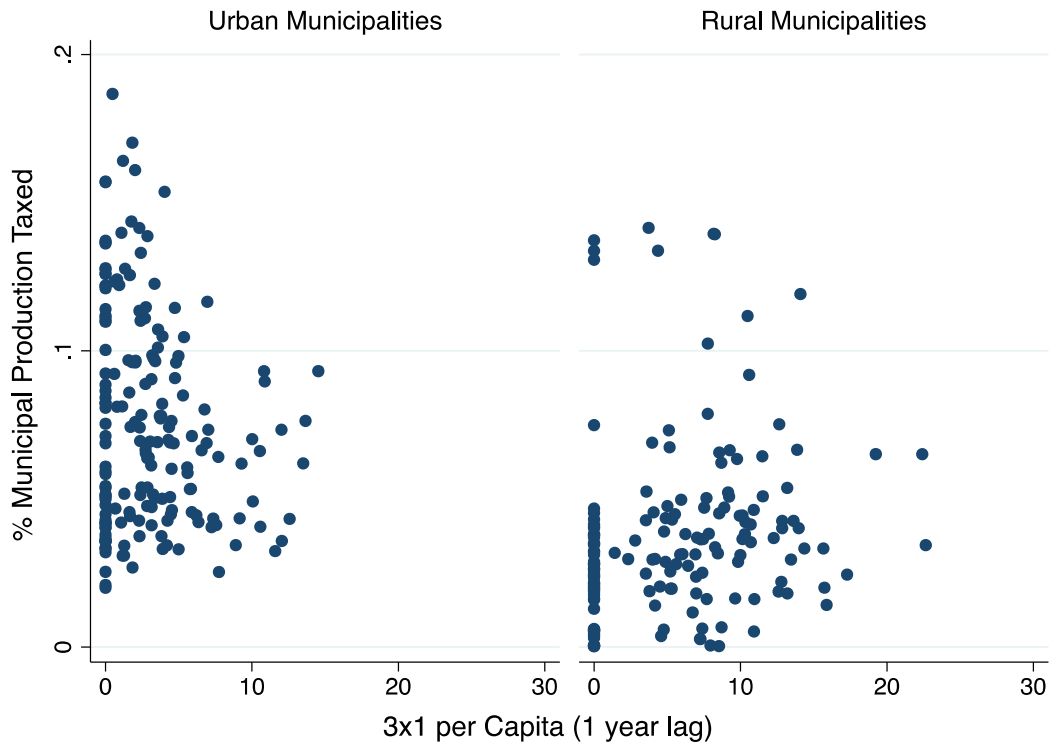
Literacy Rates	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	.001 (.001)	.001 (.001)	.001 (.001)	.001 (.001)
% Homes with remittances (1 year lag)	-.15*** (.032)	-.15*** (.032)	-.138*** (.032)	-.136*** (.032)
% Homes with return migrants (1 year lag)	.68*** (.05)	.57*** (.065)	.53*** (.068)	.53*** (.068)
% Municipal Production Taxed (1 year lag)	9.80* (4.96)	8.79** (4.94)	9.84** (4.94)	10.13*** (4.94)
Public Works per Capita (1 year lag)	.0002** (.00008)	.0002* (.0001)	.0001 (.0002)	.0001 (.0002)
Ramo 26 (1 year lag)	-- (--)	.001** (.0006)	.001+ (.0006)	.001+ (.0006)
Ramo 33 (1 year lag)	-- (--)	.0003* (.0002)	.0002+ (.0002)	.0002+ (.0002)
Per Capita Income (1 year lag)	-- (--)	-- (--)	.0003* (.0001)	.0003* (.0001)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	-.92 (.72)
Constant	84.03*** (.52)	83.96*** (.52)	83.67*** (.61)	84.06*** (.61)
R ²	.43	.44	.45	.46
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

The reader will recall that in Table 5.7 it was found that municipal taxation shares a strong negative relationship with school attendance rates. However, as Table 5.8 reveals, across Guanajuato municipal taxation appears to stimulate higher literacy rates. This finding is very promising in so much that it demonstrates that as municipal capacity improves in Guanajuato, local governments respond by reinvesting in education. Literacy rates are a very basic but meaningful proxy for education quality, especially in marginalized regions that have high illiteracy rates; and thus, the fact that improved taxation at the local level leads to an increase in literacy rates indicates that municipal capacity is a key factor along the road to development. Although Table 5.8 does not clarify the relationship between municipal taxation and 3x1 investments, Graph 5.6 helps shed light on the role of RLD in this process. At the graph illustrates, in urban *municipios* where relatively less 3x1 projects are carried out, 3x1 per capita shares a negative relationship with the percentage of municipal production captured by taxes in the ensuing year. In rural *municipios*, however, where taxes rates are the lowest in the state, 3x1 investments appear to improve municipal taxation in the subsequent year. This finding reflects positively on the 3x1 para migrantes program in that it indicates that 3x1 investments correlate with higher taxation rates, and in turn, taxation improves education outcomes.

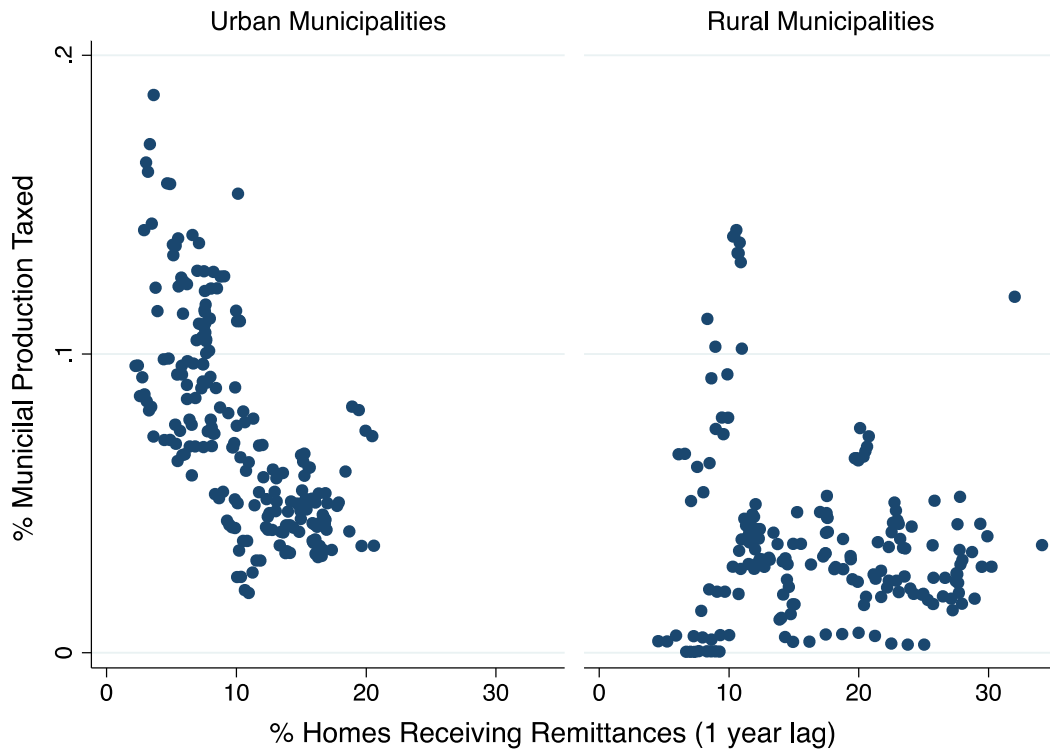
Graph 5.6 Municipal Taxation by 3x1 per Capita



Source: Author; INEGI and SEDESOL.

Given Graph 5.6, the reader may wonder how household remittances affect municipal taxation rates. Graph 5.7 demonstrates a strong negative trend between municipal taxation and household remittances in urban *municipios*. This trend is much more uniform than the one found in Graph 5.6. Concerning rural *municipios*, Graph 5.7 shows an initially positive relationship between taxation and household remittances. However, as the percentage of households receiving remittances increases beyond 10 percent municipal taxation begins to fall. Taken together, Graphs 5.6 and 5.7, in conjunction with Table 5.8, reemphasize the importance of channeling remittances towards certain ends. Specifically, when directed towards specific development projects, remittances appear to have the potential to improve not only municipal taxation but also stimulate better education outcomes in local schools.

Graph 5.7 Municipal Taxation by Household Remittances



Source: Author; INEGI and SEDESOL.

Still, the clearest relationship between literacy rates and distinct measures of migration is found in the case return migrants. As Table 5.8 indicates, a 10 percent increase in return migrants leads to a roughly 5 percent increase in literacy rates. As with previous findings highlighted in this study, this discovery stresses the importance of strong transnational networks—between migrants and their communities—in channeling remittances towards meaningful ends.

The variable *Public Works per Capita* has a positive effect on literacy rates, indicating that municipal investment in public works project has the potential to improve human capital outcomes by supporting investments in public infrastructure. The state's capacity to foster development is also supported by the variables *Ramo 26* and *Ramo 33*, which both share a

positive relationship with literacy rates. This is specifically important in the case of Ramo 26 investments due to the fact that these particular transfers are aimed towards the country's most marginalized *municipios*. This finding would suggest that the country would be wise to expand these particular transfers, as they appear to not only reach the most excluded citizens, but most importantly, improve their lives. Regarding the variable *Per Capita Income*, Table 5.8 shows that for every \$1,000 dollar increase in per capita incomes literacy rates improve by less than 1 percent. This finding, which is overshadowed by the positive influence of municipal taxation and return migrants on literacy outcomes, underscores the importance of state support and community ties in improving education outcomes. Finally, the variable *Municipal Population* is not significant, although the coefficient indicates, as one might expect, that literacy outcomes are worse in rural *municipios*.

Table 5.9 displays the results from the regression of select independent variables on per capita income in Guanajuato. χ^2 tests show that regressions are significant across all four models. I run the model with fixed-effects estimations as a means of highlighting the effects of independent variables on literacy rates across Guanajuato's *municipios*. The model is specified as:

$$\text{Index of Per Capita Income}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, *Index of Per Capita Income*³¹ is the dependent variable observed for *municipio* i at time t and \mathbf{x}_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.

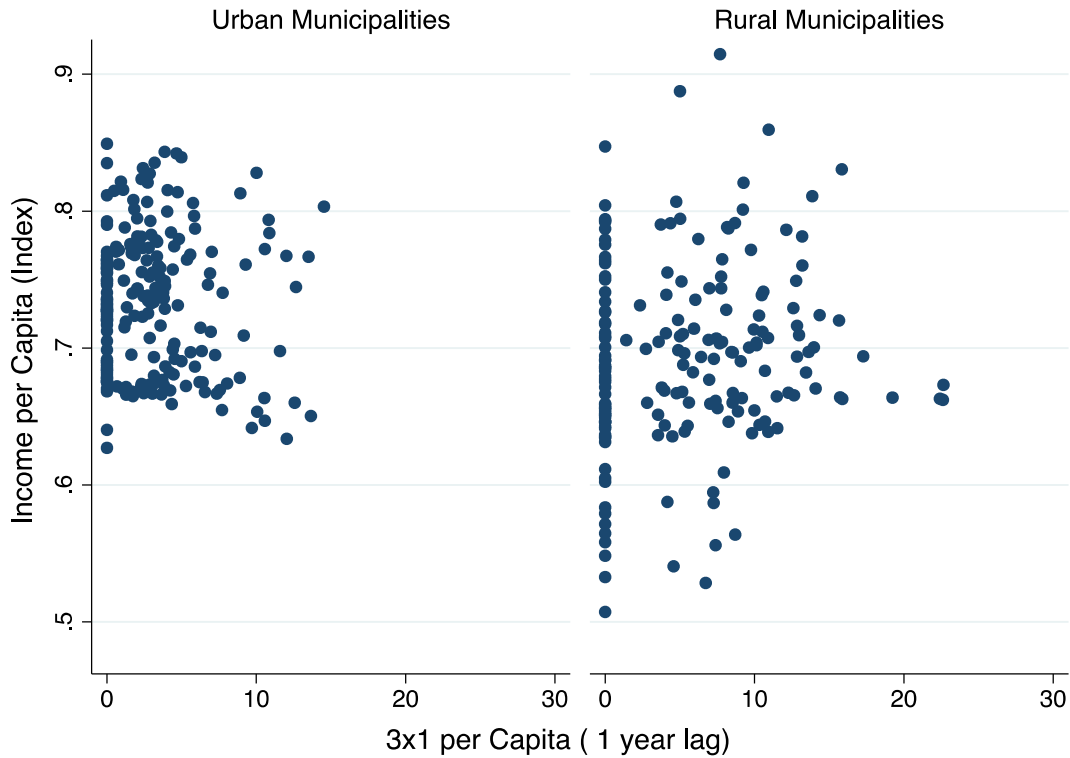
The variable *3x1 per capita* reports a slightly negative coefficient but the variable is statistically non-significant across each model. This finding implies that 3x1 investments have a

³¹The dependent variable in this model is an index calculated according to the United Nations Development Programme. The index is based off of per capita income and is equal to the natural logarithm of the maximum and minimum values of per capital income for each *municipio*.

negligible effect on per capita income across Guanajuato's *municipios*. Still, as Graph 5.8 indicates, 3x1 investments do appear to slightly improve per capita income in rural *municipios*. This trend, however, is washed out in the regression model, which pools rural *municipios* together with urban *municipios*.

Concerning the variable *% Homes with remittances*, it is evident that as household remittances increase at the municipal level per capita income improves. Still, the reader will recall that the results displayed in Table 5.5 reveal a strong negative relationship between household remittances and overall human development. Remittances alone do not, thus, lead to improved human development at the municipal level in Guanajuato. This finding implies that while income is clearly a necessary factor for economic and social development, it is not sufficient. Put differently, raw income is hardly a substitute for a development-minded state that facilitates the channeling of resources to those areas of society in which they are most needed. Still, as the variable *% Homes with return migrants* indicates, the development process is facilitated by strong community networks. On this note, across all four models the percentage of homes with return migrants has a positive effect on per capita income.

Graph 5.8 Income Per Capita and 3x1 Investments



Source: Author; INEGI and SEDESOL.

The variable *% Municipal Production Taxed* shares a positive relationship with per capita income but the variable is insignificant statistically across all four models. Similarly, the variable *Public Works per Capita* reports a positive coefficient but the variable is statistically insignificant across all models. It is quite probable that both of these factors improve per capita income in time. Still, given the limited data available for this study, it is not possible to lag the variables by more than one year. Taking this into consideration, despite the fact that neither variable reports statistical significance, they both likely play a fundamental role in the increase of per capita income at the municipal level over time. In turn, the variables *Ramo 26* and *Ramo 33* both have a positive influence on per capita income. Again, this is an extremely meaningful finding in so much that it demonstrates the decentralization of federal funds in Guanajuato over the last ten

years has not been in vain. Finally, although not statistically significant, the variable *Municipal Population* implies that per capita income is relatively less in rural *municipios*.

Table 5.9 Regression Analysis of Per Capita Income in Guanajuato

Per Capita Income	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	-.00001 (.00002)	-.000001 (.00003)	-.000001 (.00003)	-.00001 (.00003)
% Homes with remittances (1 year lag)	.002* (.0009)	.002* (.0009)	.002* (.0009)	.002* (.0009)
% Homes with return migrants (1 year lag)	.013*** (.001)	.012*** (.014)	.008*** (.002)	.008*** (.002)
% Municipal Production Taxed (1 year lag)	.05 (.14)	.05 (.14)	.002 (.13)	.0008 (.14)
Public Works per Capita (1 year lag)	-- (--)	.000002 (.000002)	.000002 (.000002)	.000002 (.000002)
Ramo 26 (1 year lag)	-- (--)	-- (--)	.00006*** (.00001)	.00006*** (.00001)
Ramo 33 (1 year lag)	-- (--)	-- (--)	.000009* (.000005)	.000009* (.000005)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	-.007 (.02)
Constant	.63*** (.015)	.63*** (.015)	.63*** (.015)	.62*** (.02)
R ²	.24	.27	.27	.28
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

Table 5.10 compares regression results from the regression of independent variables on five distinct dependent variables, including: (1) HDI, (2) Infant Mortality Rates, (3) School Attendance Rates, (4) Literacy Rates and Per Capita Income. In each model I run fixed-effects estimations in order to determine the effect of a number of independent variables upon the aforementioned dependent variables across 46 *municipios* in Guanajuato, Mexico. The models can be specified as:

$$HDI_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

$$Infant\ Mortality\ Rates_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

$$School\ Attendance\ Rates_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

$$Literacy\ Rates_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

$$Index\ of\ Per\ Capita\ Income_{it} = \alpha + \beta'x_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term. The vector x_{it} includes the independent variables outlined in left-hand column of the table below.

Each of the results reported in Table 5.10 are discussed individually above. For that reason, here I focus on comparisons of interest that emerge from the respective regressions outlined in the table. One of the clearest findings in Table 5.10 concerns the last variable *RuralUrban*, which demonstrates that urban *municipios* have clearly made more progress along the road to development than their rural counterparts. As previously mentioned, this finding underscores the importance of programs such as 3x1 para migrantes that aid rural *municipios* in their efforts to improve human development. In turn, the principle pattern emerging from Table 5.10 relates to the fact that each independent variable outlined in the first column of the table has a distinct effect on each of the four indicators of HDI. For example, concerning *3x1 per*

capita, overall 3x1 investments have a positive effect on human development levels. Still, it is evident that 3x1 investments impact infant mortality rates and school attendance rates more than literacy rates and per capita income. In contrast, the variable *% Homes with remittances* has a strong effect on each indicator of HDI, such that a 10 percent increase in homes receiving remittances increases infant mortality rates by 5 deaths per 1,000 births, reduces school attendance rates by 4 percent and pulls down literacy rates by 1 percent. Still, as the number of homes receiving remittances increases, per capita income also rises. Thus, although an increase in homes receiving migrant remittances does in fact pull overall human development down, it would be misleading to conclude that migrant remittance adversely affect all levels of development. Return migrants, on the other hand, have a positive effect overall on human development, reducing infant mortality rates, while improving school attendance rates, literacy rates and per capita income. Taken together, these first three variables reemphasize the fact that raw cash transfers do not necessarily improve the lives of those receiving them. Rather, in order for remittances to improve development outcomes, they must be channeled towards certain ends. Evidence of this point is found in the variables *% Municipal Production Taxed*, *Public Works per Capita*, *Ramo 26* and *Ramo 33*. The first of these variables measures the capacity of local government, whereas the remaining are indicators of state redistribution. As Table 5.10 indicates, each of these variables has an overall positive effect on human development. Still, across all variables municipal taxation has the largest impact on human development, demonstrating the importance of municipal capacity in the development process. To be sure, cash transfers from migrants and the federal government are important supplements for *municipios* across Guanajuato but they are clearly not substitutes for a capable local government.

Table 5.10 Regression Analysis in Comparison

	HDI	Infant Mortality	School Attendance	Literacy	Per Capita Income
	Coef.	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	.00002** (.00001)	-.006*** (.002)	.007*** (.002)	.001 (.001)	-.00001 (.00003)
% Homes with remittances (1 year lag)	-.0014*** (.0003)	.52*** (.073)	-.43*** (.06)	-.136*** (.032)	.002* (.0009)
% Homes with return migrants (1 year lag)	.008*** (.0008)	-1.38*** (.15)	1.14*** (.12)	.53*** (.068)	.008*** (.002)
% Municipal Production Taxed (1 year lag)	.079+ (.058)	-16.88* (11.17)	-12.84+ (8.58)	10.13*** (4.94)	.0008 (.14)
Public Works per Capita (1 year lag)	.000009*** (.000001)	.0002 (.0004)	.0009** (.0003)	.0001 (.0002)	.000002 (.000002)
Ramo 26 (1 year lag)	.00002** (.000007)	-.001 (.001)	.0013 (.001)	.001+ (.0006)	.00006*** (.00001)
Ramo 33 (1 year lag)	.000004** (.000002)	-.0005 (.0004)	.0004 (.0003)	.0002+ (.0002)	.000009* (.000005)
Per Capita Income (1 year lag)	.00001*** (.000001)	-.001*** (.003)	-.0006* (.0003)	.0003* (.0001)	-- (--)
Municipal Population (rural = 1; urban = 0)	-.028*** (.008)	7.82*** (1.63)	-6.51*** (1.25)	-.92 (.72)	-.007 (.02)
Constant	.74*** (.007)	20.66*** (1.38)	66.30*** (1.06)	84.06*** (.61)	.62*** (.02)
R ²	.67	.55	.50	.46	.27
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

A final point of inquiry concerns the relationship between human development and migration. At least in theory one might suspect that higher levels of human development would eventually lead to lower levels of migration. To test this hypothesis I regress select independent variables on the percentage of households with migrants in each of Guanajuato's 46 *municipios*. Table 5.11 displays the results of this analysis. χ^2 tests show that the regressions in this particular run are significant across each model. I run the model with fixed-effects estimations. The model is specified as:

$$\% \text{Homes Migrants}_{it} = \alpha + \beta' \mathbf{x}_{it} + v_i + \varepsilon_{i,t}$$

where i indexes the *municipio* and t indexes the year. Thus, *% Home Migrants* is the dependent variable observed for *municipio* i at time t and \mathbf{x}_{it} is a time-variant matrix of independent variables. The v_i terms are the *municipios* fixed effects, and $\varepsilon_{i,t}$ is the error term.

The independent variable *3x1 para migrantes* is significant across all four models and indicates that 3x1 investments lead to a reduction in the number of households with migrants in the ensuing year. The coefficient for this variable is small, indicating that for a 1000 peso increase in 3x1 per capita the percentage of households with migrants falls by 7 percent. Still, this finding is of great practical importance in so much that it signals that when channeled towards specific ends, remittances can play a role in reducing emigration. In turn, the variable *% Homes Remittances* is found to share a positive relationship with migration, implying that emigration increases as the percentage of homes receiving remittances goes up. Specifically, a 10 percent increase in the percentage of homes receiving remittances leads to a 6 percent increase in the percentage of homes with migrants. This relationship is at least in part due to the fact that remittances provide tangible evidence of the *Sueño Americano* that so many rural villagers hear about. In this sense, at first only a handful of risk takers leave but as the fruits of their labor

become more and more evident, it only makes sense that others would exit as well. Return migrants, in turn, appear to contribute to a reduction in overall migration trends. Regarding Model IV, a 10 percent increase in return migrants leads to a nearly 6 percent decrease in the percentage of homes with migrants. In turn, a mere 1 percent increase in municipal taxation leads to an 8 percent decrease in households reporting migrants. Similarly, the variables *Public Works per Capita*, *Ramo 26* and *Ramo 33* each contribute to slight reductions in migration. Still, among independent variables, HDI levels have by far the largest impact on the percentage of households with migrants. As the coefficients for *HDI* and *HDI Squared* indicate, the percentage of municipal homes reporting migrants initially rises as human development improves but in time migration rates decrease. This finding is supported by the variable *Municipal Population*, which indicates that the percentage of households with migrants is substantially higher in rural *municipios*. Together, these findings point to a basic conclusion: Tangible development—improved healthcare, investments in human capital and infrastructure—is the best way to reduce emigration. Regarding this, it is important to keep in mind that during the period in question—2002 to 2011—the U.S. government spent more money on “controlling migration” than at any time in the nation’s history. Despite this, migration across Guanajuato only fell in those *municipios* that were able to make significant gains in human development. In this sense, levels of human development, more than the height of border walls, seems to best predict migration trends in Mexico.

Table 5.11 Regression Analysis of Migration Rates in Guanajuato

% Homes With Migrant	Model I	Model II	Model III	Model IV
	Coef.	Coef.	Coef.	Coef.
3x1 per capita (1 year lag)	-.007*** (.001)	-.007*** (.001)	-.007*** (.001)	-.007*** (.001)
% Homes with remittances (1 year lag)	.65*** (.04)	.66*** (.04)	.62*** (.04)	.60*** (.04)
% Homes with return migrants (1 year lag)	-1.01*** (.06)	-.81*** (.08)	-.55*** (.09)	-.59*** (.09)
% Municipal Production Taxed (1 year lag)	-4.11 (6.09)	-7.47 (6.06)	-6.53 (6.02)	-8.51+ (5.77)
Public Works per Capita (1 year lag)	-- (--)	-.0002* (.0001)	-.0002* (.0001)	-.0001* (.0001)
Ramo 26 (1 year lag)	-- (--)	-.002*** (.001)	-.002*** (.001)	-.002*** (.001)
Ramo 33 (1 year lag)	-- (--)	-- (--)	-.0003* (.0002)	-.0003* (.0002)
HDI (1 year lag)	-- (--)	-- (--)	-20.84*** (5.15)	65.04* (.0002)
HDI Squared (1 year lag)	-- (--)	-- (--)	-- (--)	-53.36** (30.71)
Municipal Population (rural = 1; urban = 0)	-- (--)	-- (--)	-- (--)	3.27*** (.86)
Constant	10.99*** (.82)	125.77*** (12.67)	22.56*** (3.83)	-12.65+ (18.35)
R ²	.61	.64	.66	.68
Prob. > χ^2	(0.000)	(0.000)	(0.000)	(0.000)
N	388	388	388	388

Note: Unstandardized coefficients reported. Standard Errors in Parentheses.

+p<.1 *p<.05 **p<.01 ***p<.001

Conclusions

In this chapter I have placed specific emphasis on how remittances affect human development outcomes. To my knowledge, this is the first empirical study to compare the development effects of household remittances with 3x1 investments. Two clear points emerge from this analysis: (1) household remittances alone drive down social and economic development and (2) remittances channeled through the program 3x1 para migrantes have a positive effect on human development outcomes. These findings echo the results of the studies outlined in the first section of this chapter. In particular, as Calderón and colleagues (2008) argue, "...remittances are more effective in raising investment and enhancing growth in countries with higher levels of human capital, strong institutions, and good policy environments" (Calderón, Fajnzylber and López 2008: 366). In this sense, the findings outlined in this chapter add to the conversation by documenting the degree to which pro-migrant policy improves the development potential of remittances in the state of Guanajuato, Mexico. Moreover, this study demonstrates that RLD varies a great deal across *municipios*, indicating that it would be a grave mistake to generalize about the nature of RLD at the state or national level without also documenting the nuances of development outcomes at the local level. Finally, and most important for the larger conversation at hand, this analysis illustrates the role of 3x1 investments in improving human development in select *municipios* across the state of Guanajuato. As documented above, *municipios* that have participated in the 3x1 program are relatively more developed today than they were ten years ago. Given this, one might expect that these *municipios* would have relatively more transparent and accountable governments. In the subsequent chapter I test this hypothesis by analyzing the relationship between development and governance across Guanajuato's *municipios*.

Chapter 6: Paving the Path for Democracy in Guanajuato, Mexico

[T]he ultimate outcome of the decentralized development strategy will depend in part on the extension of the third wave of democratization to the subnational levels of government in developing countries, a process that to date remains sporadic. (Hiskey 2003:56)

As the first four chapters of this study demonstrate, in the state of Guanajuato fiscal decentralization establishes the structural foundation for a more participatory form of local government and acts as a catalyst for human development. The program 3x1 para migrantes is a product of this shift. Still, it is unclear whether or not these structural moves underpin actual changes in governance. In this chapter, as a means of addressing this issue, I analyze the relationship between remittances and governance across Guanajuato's *municipios*. A brief anecdote from my field research sets the stage for this discussion.

One evening while I was staying in the town of Ojo de Agua de Mendoza, located in the *municipio* of Jerécuaro, I found myself talking with two young immigrants who had recently been deported from the U.S. Both young men had lived in the U.S. for a number of years, one in Albuquerque, NM and the other in Lincoln, NE. At the time of my visit the men were working with part of a road crew that was widening a small alleyway in preparation for a new street. Part of their task was to widen the current avenue so that the paving crew would have enough space to lay down the new road. However, as both men explained to me, the project was hung up at the moment because one of the neighbors was unwilling to relinquish a small strip of his land that bordered the projected roadway. As a result, as soon as they were done clearing out debris from the alleyway, the project was going to be put on hold. I asked them if they had spoken to the government about the issue, to which the young man who had lived in Lincoln responded:

Yes, we talked with the individual directly and once it was clear that he was not going to work with us, we went to the municipal government but they said they couldn't do

anything about the issue. You know, in the U.S. the government would take this issue on and make the owner give up his strip of land for the better good of the community but not here. [Here it is important to note that the young man referred specifically to eminent domain.] You see, that is the difference between the U.S. and Mexico. In the U.S. the government pushes progress and here the government and the people are accustomed the way things are. That's why it's so hard to live here because nobody thinks about the future.

Now, if the young man had been the property owner whose land was being asked to be sold for the public good I imagine he might have been less willing to defend the government's use of eminent domain. Still, what stuck in my mind after this conversation was the way in which the young men quickly invoked the cultural and political practices of people in the U.S. In fact, in each of the three case studies outlined in Chapter 3 I ran across migrants and community leaders who spoke of the beliefs and value systems of the U.S. in discussing development issues in their hometowns. One of the most evident examples of this emerged during a conversation I had with Anselmo, the co-director of MIDE-AC, on a warm July afternoon during the summer of 2011 during a visit to El Timbinal, Guanajuato. The visit itself was quite interesting but perhaps the most important juncture during my stay took place in the car ride en route to El Timbinal. I had never been to the small, southern Guanajuato town but MIDE-AC was kind enough to offer me a ride in their double cab pickup truck. During the two-hour ride Anselmo and I sat up front and Alejandra and Don Ángel rode in the back. While they discussed an upcoming meeting with the factory workers in El Timbinal, Anselmo kindly answered the many questions I had for him. The majority of my inquiries concerned how MIDE-AC got started and the previous work that they had done with migrant clubs in Zacatecas. Still, what stood out the most from our conversation was a two-pronged process Anselmo described as “social lobbying” and the development of “political capital”. Specifically, Anselmo had the following to say:

Early on we [MIDE-AC] discussed the importance of political participation and the importance that migrants themselves follow the laws and that they began to see

themselves as transnational citizens. When we began working with migrants we immediately noticed that they recognized the social and legal importance of the law the United States. At the same time, as an organization we felt that as the country began its transition towards democracy it was fundamental that in Mexico citizens learn to respect the law. That is, we had to learn that it was preferable not to buy off local officials [*pagar la mordida*], that it was better to let them take your car than to allow police officers to extort you for money. So, as an organization, we felt that it was crucial that we demonstrate to migrants that it is just as important to follow the law in Mexico as in the United States. In our training sessions we began to tell migrants, “You have lived in the U.S. and you understand the importance of following the law. So, why, as soon as you cross the border back into Mexico do you stop using your seat belt, you go back to throwing trash out the window and you feel that it is ok to drink and drive?” As you can see, part of what we do at MIDE-AC involves constructing citizenship [*formación ciudadana*]. From the beginning this was one of our main interests. We knew that to be effective over the long run we would have to address the political culture of local communities. We knew that our impact would be small scale to begin because we are a very small organization. So, we decided that we could offer consultation to migrants but what really interested us was an alliance with Mexican citizens working with the theme of democracy. We wanted to instill the idea that citizens are essentially vigilantes that constantly scrutinize the government but in order for this type of attitude to emerge we knew that migrants and their communities had to be aware of their responsibilities as citizens. Our history in Mexico has accustomed Mexicans to see the government as an all-powerful entity that gives and takes at its own discretion. Given this history, we felt it was necessary to help people see the need to mature as citizens and realize that the government is our responsibility, that if the government fails it is our fault and that if the government robs it is because we permit them to do so by helping them rob or turning a blind eye. And specifically, as the migrants are concerned, we wanted them to realize that if their projects failed it is at least in part because they did not put enough effort into seeing the project through. We felt it necessary to help the migrants realize that they could not simply survive on government subsidies because they make us slaves, they make us clients of one political party or another. So, as you can see, as an organization we see ourselves as social lobbyists and our goal is to develop political capital within local communities.

As Anselmo clearly demonstrates, one of the most difficult obstacles to development in migrant hometowns in central Mexico is not a question of funding but rather the cultivation of a new political culture. Moreover, as he pointed out to me on multiple occasions, in his experience economic development and the cultivation of democratic norms always hand in hand. The results from my study confirm this notion. Specifically, in previous chapters I find that migrants do in fact have a voice in rural development initiatives but cold cash transfers alone are not enough to impulse meaningful development. Rather, household remittances tend to repress

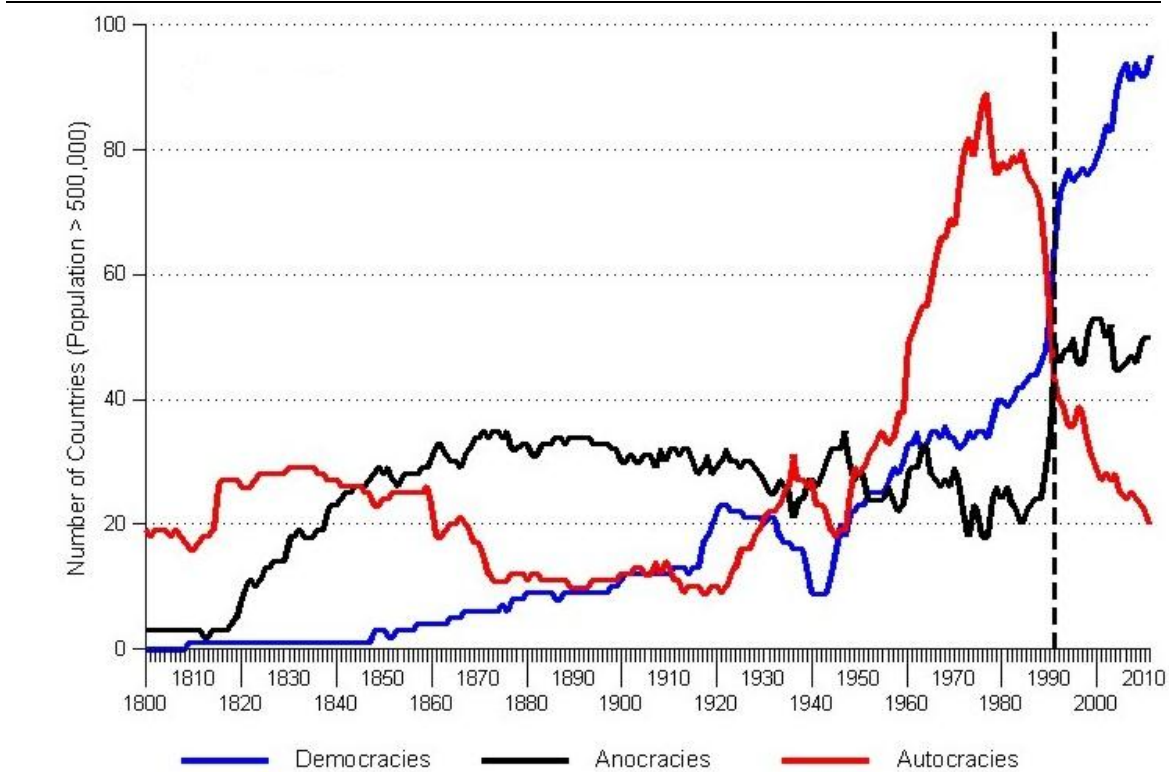
human development levels at the municipal level. In contrast, investments made through the 3x1 para migrants program have a positive effect on development outcomes. In *municipios* with relatively more 3x1 investments education and healthcare outcomes are better, and in rural *municipios*, per capita income also improves in the years ensuing 3x1 investments. In short, in all *municipios*—and especially rural *municipios*—3x1 investments improve the quality of life enjoyed local citizens. As extant research suggests, the mechanisms driving these results may be directly tied to the process that Anselmo describes above. That is, 3x1 projects are a catalyst for economic and human development but they may also contain the potential to have a positive impact on political norms. In order to further evaluate this possibility I turn to a quantitative evaluation of political norms across Guanajuato's 46 *municipios*. I begin this analysis with a brief review of existing research concerning the relationship between democracy and development.

The Spread of Democracy

Many forms of Government have been tried, and will be tried in this world of sin and woe. No one pretends that democracy is perfect or all-wise. Indeed, it has been said that democracy is the worst form of Government except for all those other forms that have been tried from time to time." (Winston Churchill 1947)

Government, to be sure, is but a necessary burden. The great American revolutionary Thomas Paine made this point clear in *Common Sense* when he wrote "Society in every state is a blessing, but government, even in its best state, is but a necessary evil" ([1776] 1995:1). Over the course of the 20th century democracy emerged as one of the most common forms of government in the world. Graph 6.1 illustrates this point. Data for the graph comes from the Polity IV project, which ranks government types around the world from 1800 through present. Graph 6.1 considers three types of governments: (1) Democracies, (2) Anocracies and (3) Autocracies. As the reader can see, by the year 2000 roughly half of the world's countries were democracies.

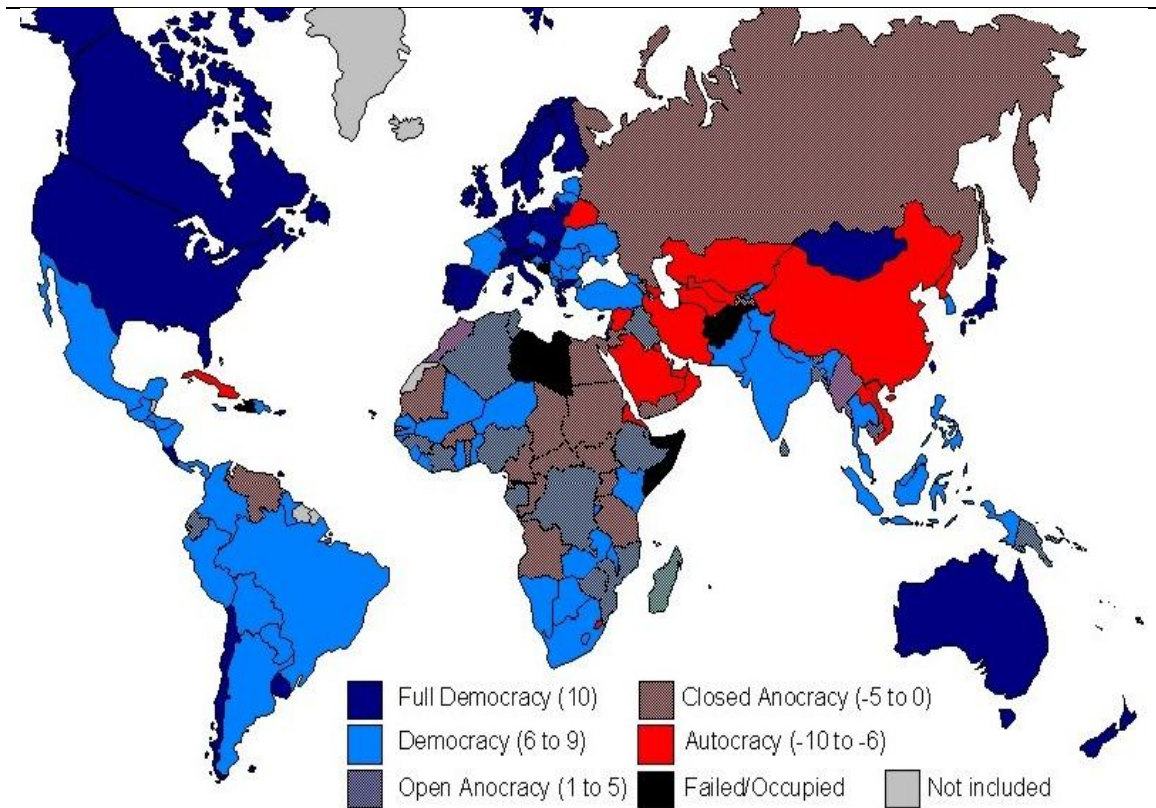
Graph 6.1 The Spread of Democracy, 1800-2011



Source: Polity IV, <http://www.systemicpeace.org/polity/polity1.htm>.

With little doubt, among the typologies outlined in Graph 6.1, democracy is arguably the most desirable. Still, as Winston Churchill points out above, democracy is far from perfect. In fact, there is a great deal of variation within democratic countries around the world. As Graph 6.2 illustrates, in 2011 roughly half the world's countries were democratic. Still, only a handful of countries were considered "fully democratic" in 2011. In this sense democracy can be seen as a theoretical principle that societies aim to achieve but in practice often fall short of reaching.

Graph 6.2 Government Types by Country, 2011



Source: Polity IV, <http://www.systemicpeace.org/polity/polity1.htm>.

Relatively more democratic societies are attractive for a number of reasons. First, democratic societies tend to go to war with one another less frequently than non-democratic societies.³² Given this, it comes as no surprise that the number of armed conflicts around the world has dropped significantly as democracy has spread. Second, democratic societies allow citizens to participate in the redistribution of resources, which in turn gives citizens a vested interest in government. Finally, basic measures of human prosperity share a strong positive correlation with democracy. With these elements in mind, understanding the factors that

³²Immanuel Kant is often cited as the first author to systematically discuss this issue in his 1795 publication *Perpetual Peace*. Thomas Paine made a similar argument in 1776 in his book *Common Sense*. Since then, however, a great number of authors have added to the conversation. For a contemporary treatment of this issue see: Doyle, Michael W. *Ways of War and Peace*. New York: W.W. Norton, 1997.

improve the stability and quality of democratic governance is obviously of great importance. It comes as little surprise, therefore, that the relationship between economic performance and the quality of governance has received a great deal of attention in recent years. This is particularly true in the case of Mexico, which I turn back to now.

Remittances, Development and Democracy in Mexico

Early analysts of economic restructuring in Mexico argued that by introducing economic reforms and slowly conceding to political liberalization, the PRI-dominated Mexican government planted “the seeds of its own decline” (Al Camp 1993:28) and in doing so sowed the seeds of a relatively more democratic future (Centeno 1997:4). Still, critics of the literature on the economic determinants of democracy argue that while economic development may have stabilized electoral cycles in Mexico and Latin America, it has not improved the quality of democratic governance in the region. In fact, by the time Samuel P. Huntington announced the “Third Wave of Democracy” in 1991 (Huntington 1991), Latin America had already begun to witness several tentative transitions towards democracy throughout the region (O’Donnell and Schmitter, 1986; Stallings and Kaufman, 1989; Karl 1990). However, Huntington’s threshold for democratic government was remarkably simple: competitive and transparent elections in which elites could vie for political power (also see, Dahl 1989 and O’Donnell 1987). Early critics of the third wave literature critiqued simplistic measures of democracy based solely on electoral accountability (Stallings and Kaufman 1989; Remmer 1990; Karl 1990; Geddes 1995).

Guillermo O’Donnell, himself a migrant from Argentina, was one of the first authors to analytically theorize the problems associated with the Latin America’s incipient democracies. In *Transitions from Authoritarian Rule* (1987), for example, O’Donnell and Schmitter point out that the transition towards democratic regimes in the region would require the distinction between

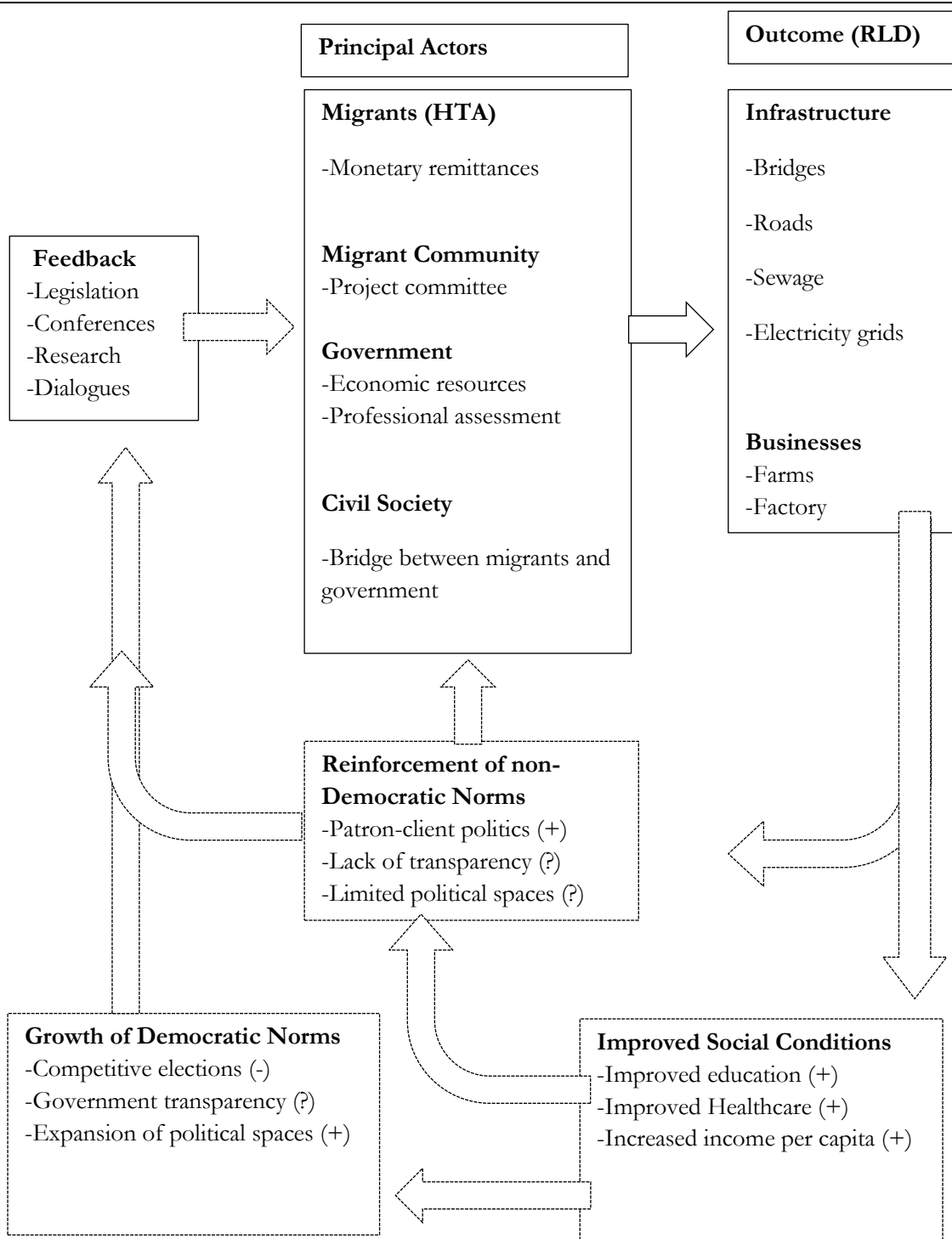
different sub-types of democracies in order to take into account the often divergent experiences of individual countries as they moved towards consolidating more inclusive political norms. O'Donnell (1994) later argued that many of Latin America's democracies were "delegative democracies" that lacked horizontal accountability. Namely, he contended that while open elections guaranteed the transparent competition for power among elites in most countries throughout Latin America, there were very few checks and balances in place to hold governments accountable once a given party gained power. As a result, according to O'Donnell, once they were elected, elites had "delegative" powers that extended well beyond the authorities granted to most executives in established democracies around the world. O'Donnell further developed this point in his 1998 article titled, "Horizontal Accountability" in which he claimed that the most evident weakness of democratic regimes in Latin America was the lack of checks and balances upon the executive. In his opinion, the inflated delegative powers of the executive encroached on the *liberal* (private rights) and *republican* (public duties) tenets inherent to democratic governance, and as a consequence, compromised the quality of representative government in the region. In this respect, according to O'Donnell, the future of democratic governments in Latin America depends largely upon the ability of governments to rein in delegative executive powers and expand democratic practices beyond the electoral sphere.

After it was clear that democracies in the region might avoid authoritarian lapses, researchers began to call for *process-based* paradigms capable of capturing the often distinct trials and tribulations of democratic consolidation evident in emerging democracies. Terry Lynn Karl (1990), for example, called for an "interactive approach that seeks explicitly to relate structural constraints to the shaping of contingent choice" (Karl 1990:1). By the dawn of the new millennium research within this vein concurred that democratic governments in Latin

America—more often than not guided by neoliberal economic policy—while more stable, were not necessarily more democratic in nature (Mainwaring and Pérez-Liñán 2003; Weyland 2004; O'Donnell 1998; and Avritzer 2002). As a result, in recent years researchers have begun to place more focus on in-country variation as well as the identification of previously unexplored variables related to democratic growth (Daron 2008:810). With that in mind, analysis of 3 x 1 investments in Guanajuato within the context of fiscal decentralization provides an excellent good opportunity to address a small part of this shortcoming.

In much of Latin America the principle approach to reining in executive power and expanding decision making to previously marginalized sectors of society has come through the decentralization of federal resources to local levels of government. In Mexico, this process began in the 1980s but it did not gain force until 1997, when the federal government redesigned Ramo 26 and created Ramo 33. Together, Ramo 26 and Ramo 33 provided local governments across Mexico with the necessary funding to invest in education, healthcare and the promotion of local economies. Put simply, 1997 marked the first time in Mexican history that local governments had the ability to respond to their development needs on their own terms. Not surprisingly, for many local regions across Mexico development initiatives have long been tied to remittances flowing in from the U.S. Thus, it is not surprising that as local governments began to gain access to decentralized funds from the federal government, they began to support migrant development projects. This is the context from which the program 3x1 para migrantes emerged. As previously noted, the program is unique in that it reincorporates migrants into the political sphere by contributing to RLD projects with decentralized funds. As a result, the 3x1 program provides an opportunity to analyze both the economic impact of RLD across Guanajuato as well as the program's impact on local politics. This potential is captured in Figure 6.1, which was first

presented in Chapter 2. Evidence outlined in Chapter 3, 4 and 5 demonstrate that all of the potential outcomes outlined in the figure are possible. Specifically, in Chapter 4 it is demonstrated that the 3x1 program appears to reinforce patron-client norms by stacking development projects in pre-election years. Moreover, 3x1 investments appear to increase electoral participation. On the other hand, research presented in Chapter 5 reveals the potential of 3x1 projects to improve economic and human development outcomes. Specifically, 3x1 investments increase literacy rates and healthcare outcomes, and at least in rural *municipios*, they improve per capita income. Finally, across Guanajuato's *municipios* it is clear that 3x1 projects outperform household remittances as a catalyst for local development. In fact, as findings presented in Chapter 5 point to time and again, household remittances alone actually have a negative effect on human development outcomes.



Source: Author.

Figure 6.1 Potential Development Paths Within the 3x1 para Migrantes Program

Nonetheless, despite the associations outlined in Figure 6.1, it is still unclear to what degree these development outcomes influence political norms and behavior across Guanajuato's *municipios*. With that in mind, in the paragraphs and pages that follow I address the relationship between governance and RLD cross Guanajuato's 46 *municipios*.

Data and Methodology

In the space that follows I evaluate the potential effect of human development on governance across Guanajuato's 46 *municipios*. The tables and figures in this section combine data used in previous chapters with a 2004 survey concerning municipal governance conducted in each of Guanajuato's 46 *municipios*.³³ Unfortunately, the limited nature of this data does not allow for meaningful regression analysis of potential relationships between development and governance over time. For that reason, the enquiries that follow are limited to an analysis of correlations between specific variables of interest. In this sense, the findings in this chapter are tentative in nature. Still, as becomes evident, this data provides a unique opportunity to observe the relationship between development trends and the quality of governance within Guanajuato's municipal presidencies for the year 2004.

Table 6.1 illustrates the data used in this section. As in previous chapters, data was collected from a variety of sources, each of which is outlined in the far right column. The first three variables in Table 6.1 are the main variables of interest. The variable *Transparency* measures “mechanisms employed by the *municipio* to make its management of public affairs transparent to citizens” in addition to “the percentage of council sessions open to the public.” Municipal

³³The variables used in this analysis comes the municipal index of institutional capacity (ICCIM), which is constructed mainly with data from the Nation Survey of Municipal Governments (ENGM). In addition, the ICCIM uses financial data from National Institute of Statistics and Geography (INEGI) and information regarding public expenditures from National Population Council (CONAPO). For specific information concerning the respective indexes please see: De Dios 2008.

transparency is measured on a scale of 0 to 100, in which 0 represents a complete lack of transparency and 100 represents absolute transparency. According to the survey, the mean score across Guanajuato's *municipios* is 69. Still, there is a great deal of variance across *municipios*, indicating that some municipal governments are far more transparent than others. In turn, *Civic Participation* represents “mechanisms and instances that allow citizens to participate in government decisions and permit the municipal government to become familiar with the needs of the population”. In this case, 0 represents no civic participation, whereas a score of 100 indicates extremely high levels of participation. As the table reveals, civil participation across Guanajuato averages 31.21, with a standard deviation of 11.36. Based on these results, it is evident that across the state of Guanajuato civic participation is far from optimal. Finally, *Municipal Planning* is defined as “the existence of municipal development plans; including urban development, civil protection and ecological protection”. A score of 0 indicates an absolute dearth of development plans, whereas a score of 100 implies a clear and coherent plan for municipal development in the years to come. Across Guanajuato *municipios* average a score of 64.29. The standard deviation of this particular variable is 25.06, indicating that there is a great deal of variation in regard to municipal planning. (For a full description of the remaining variables please see Appendix 1.)

Table 6.1 Definitions and Description of Variables Included in Correlation Analysis

Variable	Mean	S.D.	Data Source
Transparency	69.03	23.35	UNDP
Civic Participation	31.21	11.36	UNDP
Municipal Planning	64.29	25.06	UNDP
HDI	.77	.05	INEGI
Infant Mortality Rate	21.9	8.01	INEGI
Education Attendance Rate	61.84	4.06	INEGI
% Pop Illiterate	13.67	4.75	INEGI
GDP per Capita Municipal	7057.92	2372.76	INEGI
3x1 per Capita	42.68	74.	SEDESHU; INEGI
Electoral Participation	51.34	7.21	CIDAC; IFE
Electoral Competition	2.98	.87	CIDAC; IFE
% Homes Remittances	13.29	6.69	CONAPO
% Homes Return Migrants	4.67	2.33	CONAPO
Rural-Urban	.45	.49	INEGI
Social Marginalization	-.44	.56	SNIM
Public Work Spending per Capita	923.96	1031.09	SNIM; INEGI
Ramo 26 per Capita	464.13	443.91	SNIM
Ramo 33 per Capita	304.78	344.76	SNIM

Source: UNDP, CIDAC, CONAPO, IFE, INEGI, SEDESHU and SNIM.

¹ Figures in Mexican Pesos.

Table 6.2 displays correlations between mechanisms of civic participation and a number of independent variables. As the reader will note, the indicators of HDI do not correlate with public participation across Guanajuato's 46 *municipios*. In turn, the percentage of return migrants in a given *municipio*, the percentage of homes receiving remittances and 3x1 per capita all share a positive and moderately strong correlation with civic participation. Although these findings are limited to 2004, they suggest that RLD may improve civic participation in Guanajuato's *municipios*.

Table 6.2 Correlations of Civic Participation with Select Independent Variables

Civic Participation (2004)	Correlation
	R ²
Human Development Index (1 year lag)	-.07
Infant Mortality Rate (1 year lag)	-.04
Literacy Rate (1 year lag)	.01
School Attendance Rates (1 year lag)	-.01
% Homes Return Migrants (1 year lag)	.21*
% Homes Receiving Remittances (1 year lag)	.20*
3x1 per capita (1 year lag)	.17*
Ramo 26 (1 year lag)	.07
Ramo 33 (1 year lag)	.07

Source: SEDESOL, INEGI, UNDP.

Table 6.3 reveals the results of correlations between transparency and select independent variables. As the results demonstrate, human development levels share a positive relationship with transparency within municipal governments. This finding implies that, more developed *municipios* have relatively more transparent municipal governments. Concerning the individual indicators of HDI, as one might expect, as infant mortality rates increase, government transparency decreases. Put differently, government transparency improves as infant mortality rates begin to fall. On the other hand, as literacy rates go up government transparency improves; thus it seems that as education outcomes improve government practices appear to follow suit. In turn, school attendance rates share a negative relationship with government transparency. This finding supports the results of Chapter 5, which demonstrated that school attendance rates do

not necessarily imply improved education outcomes. Table 6.3 reveals the practical implications of this finding by showing that the quality of education influences the type of governance evident at the municipal level. This implies that while building schools is certainly important, recruiting quality educators is indispensable. The percentage of return migrants and remittances in a *municipio* appears to have little influence on government transparency. 3x1 per capita, in contrast, has a positive effect on municipal transparency. This implies that participatory programs such as 3x1 para migrantes have the potential to pressure government officials to conform to relatively more transparent norms. This finding is of particular interest because it demonstrates that 3x1 investments not only improve development outcomes but also potentially influence governance at the municipal level. Finally, neither Ramo 26 nor Ramo 33 shares a statistically significant relationship with government transparency.

Table 6.3 Correlations of Transparency with Select Independent Variables

Transparency (2004)	Correlation
	R ²
Human Development Index (1 year lag)	.16*
Infant Mortality Rate (1 year lag)	-.17*
Literacy Rate (1 year lag)	.19*
School Attendance Rates (1 year lag)	-.12*
% Homes Return Migrants (1 year lag)	.01
% Homes Receiving Remittances (1 year lag)	-.04
3x1 per capita (1 year lag)	.39*
Ramo 26 (1 year lag)	-.19
Ramo 33 (1 year lag)	-.01

Source: SEDESOL, INEGI, UNDP.

Table 6.4 reveals the correlations between select independent variables and municipal planning. As the reader will note, overall human development shares a positive relationship with levels of municipal planning. This finding suggest that *municipios* with relatively better education and healthcare outcomes also have municipal governments that do a better job planning for the future of their citizens. This is corroborated by the individual relationships between municipal planning and infant mortality, which indicates that higher quality healthcare improves government preparation. In turn, literacy rates share a positive relationship with municipal planning; indicating that the higher the quality of education, the more prepared government officials are to perform their jobs. Finally, *Ramo 26* and *Ramo 33* both share a negative

relationship with municipal planning. In all likelihood this reflects that fact that Ramo 26 and Ramo 33 both target the most undeveloped *municipios*.

Table 6.4 Correlations of Municipal Planning with Select Independent Variables

Municipal Planning (2004)	Correlation R ²
Human Development Index (1 year lag)	.27*
Infant Mortality Rate (1 year lag)	-.21*
Literacy Rate (1 year lag)	.31*
School Attendance Rates (1 year lag)	-.10
% Homes Return Migrants (1 year lag)	-.08
% Homes Receiving Remittances (1 year lag)	-.11
3x1 per capita (1 year lag)	.02
Ramo 26 (1 year lag)	-.37*
Ramo 33 (1 year lag)	-.38*

Source: SEDESOL, INEGI, UNDP.

Conclusions

The findings in the chapter—although hardly conclusive—suggest that in the state of Guanajuato good governance is at least in part a product of human development. These results mirror the findings of previous research at the national level that find that as human development begins to improve the quality of local governance responds in kind (De Dios 2008). Moreover, and most important for the study at hand, the results indicate that 3x1 para migrantes investments share a positive relationship with civic participation and relatively more transparent municipal governments. Given the limited nature of the data used in this section,

these findings cannot be used to generalize about the relationship between 3x1 investments and governance over the full period 2002-2011. However, the reader will recall that in Chapter 5 it was found that 3x1 investments improve human development outcomes across all of Guanajuato's *municipios* and in particular rural *municipios*. In turn, in this chapter it is found that human development indices correlate in a positive direction with the quality of municipal governance for the year 2004. Given this, it can be inferred that 3x1 investments in Guanajuato during the period 2002-2011 improved human development levels and in all likelihood contributed to improved governance. These findings mirror Xóchitl Bada's work, which concludes, "HTAs have made clear inroads for increasing the accountability mechanisms vis-à-vis the state authorities at the municipal and state levels" (2011:29).

Chapter 7: Discussion

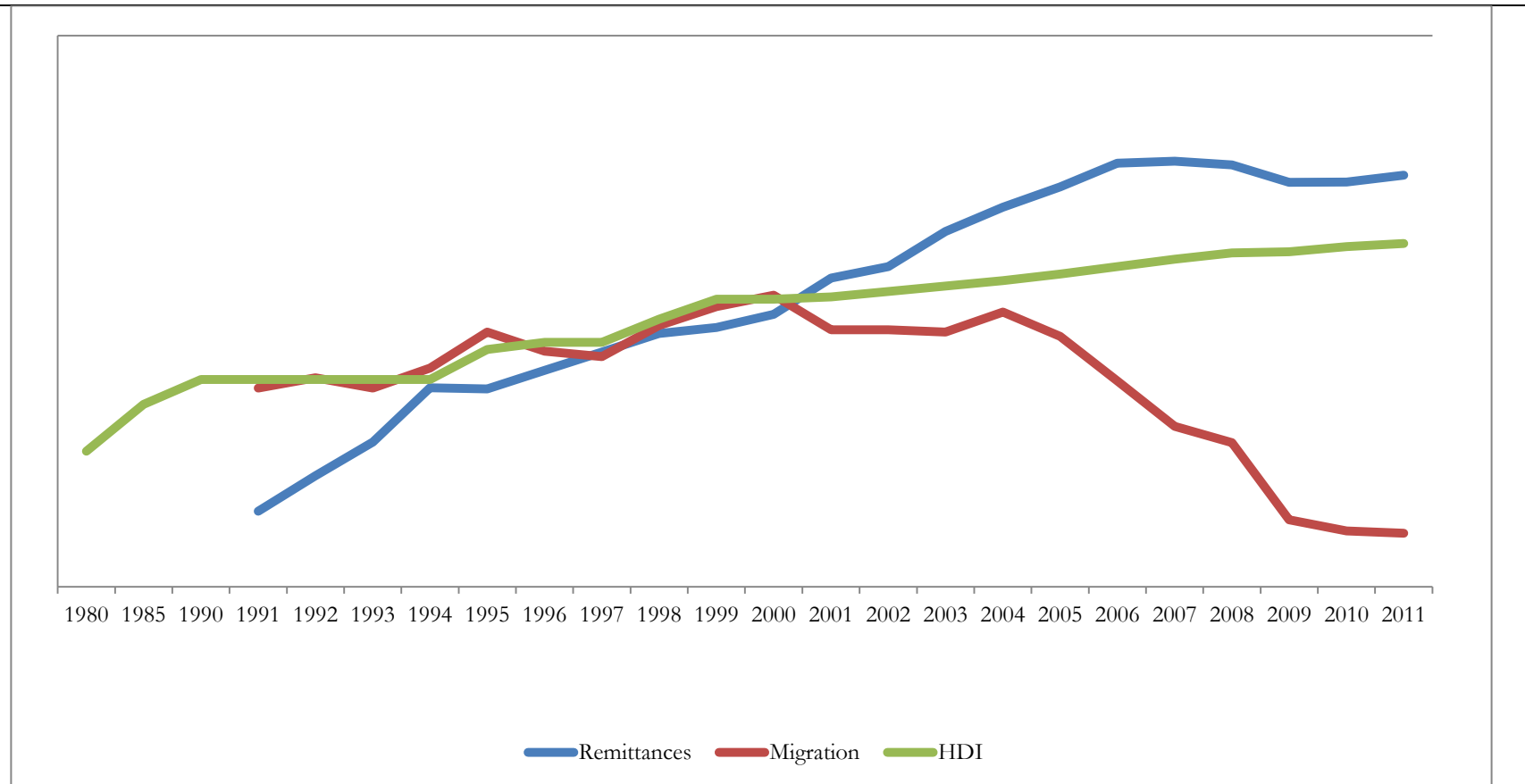
Evils which are patiently endured when they seem inevitable, become intolerable once the idea of escape from them is suggested. (Alexis de Tocqueville [1835] 2000)

In his timeless masterpiece *Democracy in America*, author Alexis de Tocqueville suggests that once it becomes evident to the oppressed that there is another way they will begin to take it upon themselves to improve their lot in life. This suggestion clearly captures the experience of many immigrants around the world today. In recent decades the number of individuals exiting their homelands has reached unprecedented numbers. At its core, this trend is the product of an unequal world order in which a handful of economically well-off nations control the vast majority of the world's resources. In this sense, relative deprivation—and not necessarily abject poverty—pushes people to pick up and move to regions or countries with better opportunities. Frequently, once migrants settle into their new surroundings, they begin sending money back to their friends and family; and occasionally, these individuals return to their homelands and with them they bring back an acute desire to improve the factors that conditioned their exit in the first place. As this study reveals, this development is particularly evident in the case of modern Mexico.

Over the course of the last thirty years Mexico has experienced a number of fundamental social and economic shifts. Specifically, as Graph 7.1 illustrates, in recent decades human development indices have improved throughout the country, revealing tangible advances in the realms of education, healthcare and employment. Poverty and inequality are hardly a thing of the past in Mexico, but in general, Mexicans are better off today than they were three or four decades ago. In addition, in recent decades emigration to the U.S. has fostered deep transnational links between Mexico and the U.S. A clear example of this is found in the billions

of dollars in migrant remittances that flow into Mexico each year. Finally, during this same time period Mexico has experienced an unprecedented opening of the political sphere. Across the country parties now compete for political posts in relatively transparent elections. Moreover, the decentralization of decision making and resource allocation from the federal government to state and municipal authorities has opened up avenues of political participation to previously excluded groups. Taken together, these trends point towards a potential relationship between migration, remittances, human development and democracy in modern Mexico. To be clear, these patterns do not necessarily imply causation; however, as I have demonstrated throughout this study, at least in the case of Guanajuato, there is far more overlap between these factors than available research suggests.

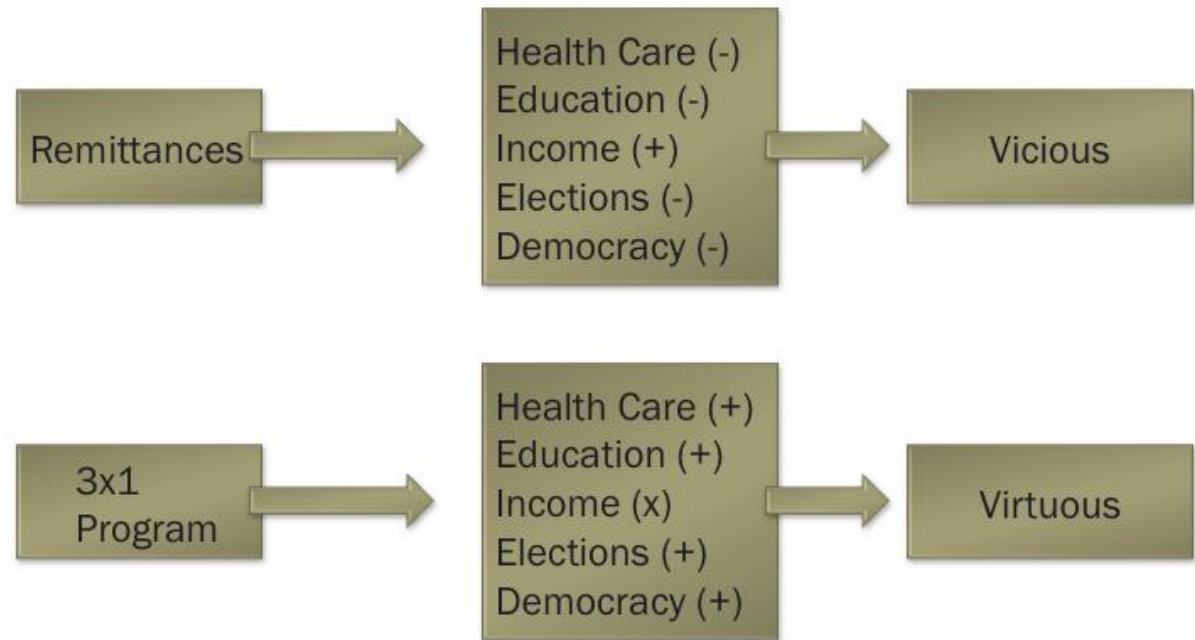
Graph 7.1 Migration, Remittances and Human Development in Mexico 1980-2011



Source: IGENI, UN.

Note: This graph reflects the natural log of each variable.

In the present study, as a means of evaluating the degree to which Mexican migrants change their homelands, I have analyzed the relationship between migrant remittances, development and political change in *municipios* across the state of Guanajuato, Mexico. My study began with several basic questions: To what degree have migrants shaped development patterns in Guanajuato? And specifically, how do migrants, if at all, influence economic development and political change in *municipios* across the state? The crux of this study lies at the intersection of these inquires, and although my analysis is limited in scope, the results outlined in Chapter 3, 4, 5 and 6 point to one overarching theme: Remittances alone do not drive long-term development. Rather, in the long run meaningful RLD—measured by gains in health care, education and economic growth—requires a deep and authentic partnership between economic actors, members of civic society and local government. As the results outlined throughout this study demonstrate, the program 3x1 para migrantes has the potential to underpin this type of relationship. This process is illustrated in Figure 7.1, which summarizes the main findings of this study. Positive relationships are denoted with a “+” sign, negative relationships are denoted with a “-” sign and spurious associations are marked with a “x”. As the diagram indicates, 3x1 investments improve on the development outcomes of raw remittances. In fact, as my research indicates, the 3x1 framework appears to have the potential to stimulate virtuous development cycles that benefit all of the inhabitants residing within migrant-sending regions. Eventually, additional research will help tease out the nuances of this potential. In the meantime, however, this study makes a strong case for bringing the state back into local development initiatives, especially in so much as they concern migrant communities.



Source: Author.

Figure 7.1 Outline of Results

At this juncture it is important to point out that RLD in Mexico is already seen internationally as a model to be followed. In fact, in recent years governments from Latin American and other parts of the world have sent commissions to Mexico to learn about the 3x1 para migrantes program with the ultimate goal of instituting similar programs in their own countries. In 2012, for example, the state of Guanajuato received a commission from the Philippines. The goal of the commission was to learn from Guanajuato’s experience with the 3x1 program, and ultimately, create a similar a program for migrants and their families back in the Philippines. World Bank analyst Sheryll Namingit, who travelled with the delegation, pointed out that “when the commission returns to the Philippines we are going to apply what we have learned in order to develop an integral program for migrants that helps promote a diverse array of [migrant] projects” (MiMorelia.com). Given these types of exchanges, the results from this

study are likely to have practical implications for other nations looking to foster RLD. For that reason, in the space below I outline several general conclusions for policy makers.

Nine Lessons for Policy Makers

(1) International migration is an inherent component to the current global economy

In a world in which inequalities between rich countries and poor countries run 100 to 1 migration can no longer be seen as a passing “phase” of development. Rather, understanding the impact that migrants have on their hometowns is fundamental to our desire to improve the wellbeing of mankind in the 21st century. Income and wealth disparities between rich nations and poor nations have grown over the course of the 20th century and they have held steady at the beginning of the 21st century. As a consequence, immigration has emerged as a distinct form of social mobility in which individuals from developing nations seek to improve their life chances by relocating to relatively richer countries. This tendency should not be expected to dissipate anytime soon. At present the richest countries around the globe dominate more than 80 percent of humanity’s wealth but account for only 20 percent of its population. As long as these structural arrangements remain, the flow of remittances from developed regions of the world to developing nations will continue. Given this, policy makers in developing countries should have great interest in understanding those factors that optimize the development potential of remittances.

(2) Migrant networks are central to RLD

At least initially, the vast majority of migrants exit their country not only with a vision of a better life for themselves but also with the hope of eventually improving the lives of those they have left behind. The individuals and communities outlined in Chapter 3 clearly reflect this point. Still, as this study reveals, cold cash transfers, despite the good intentions with which they

are sent, do not necessarily guarantee meaningful development. Rather, the success or failure of RLD appears to hinge on the presence of return migrants and the assistance of committed government officials. In addition, for many rural communities across Guanajuato, it appears that the catalyst of social, economic and political change is not embodied so much by the total amount of dollars that migrants send back from the U.S. but rather by the ideas and norms that migrants bring back to their communities. This point is extremely important because it reveals the potential for migrants to leverage economic development at the local level while at the same time stimulating political change. It also demonstrates that migrants remit not only monetary goods but also social remittances in the form of political and human capital. This finding also has novel implications for policy makers in migrant-receiving states. Specifically, the findings outlined in this study imply that policies that facilitate the circulation of migrants would be most likely to spur the positive effects of return migrants. In contrast, policies that reduce the circulation of migrants between the U.S. and Mexico would be expected to inhibit the potential for return migrants to have a positive impact on their hometown communities. Taken together, these findings demonstrate that migrant remittances have the potential to underpin a unique form of development in which migrants and their communities gain agency within the political economy of their hometown regions; still, the degree to which this potential is realized depends a great deal on policy makers in both the U.S. and Mexico.

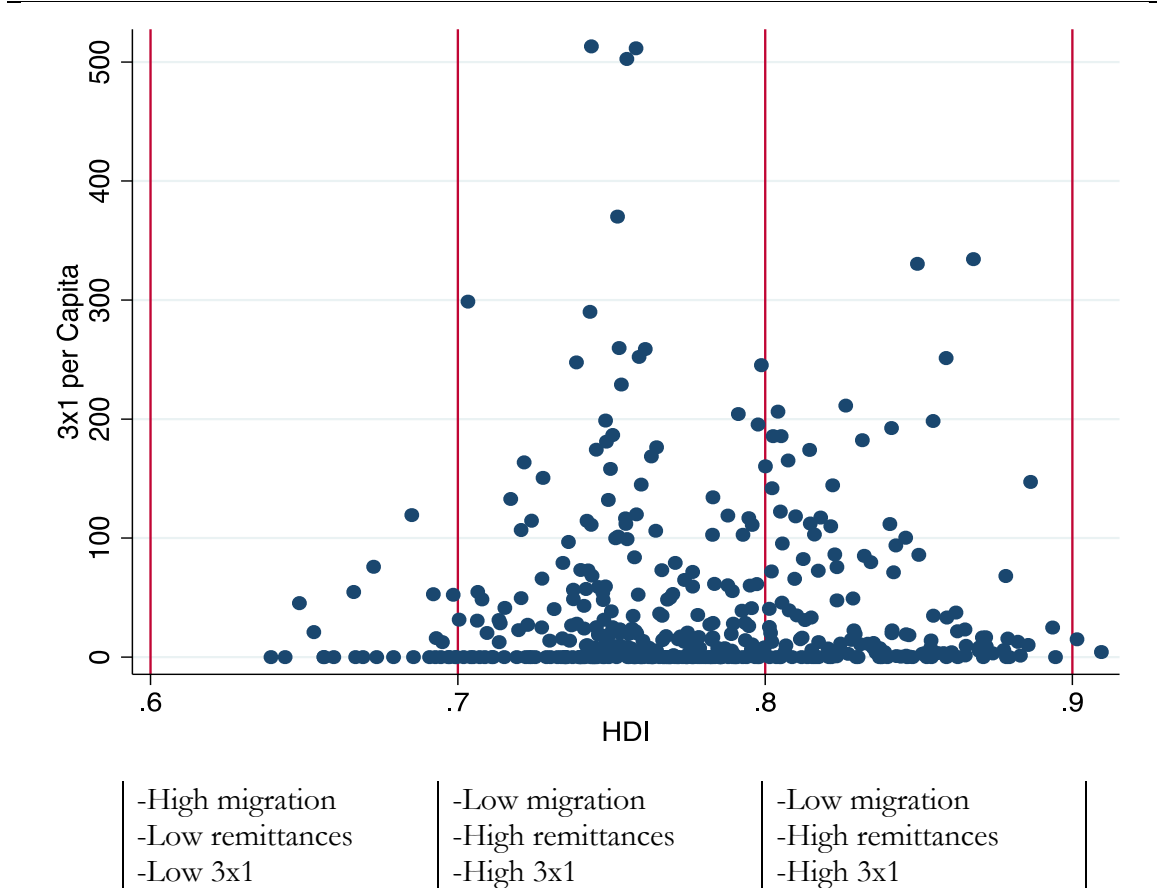
(3) 3x1 Investments reflect a self-selection process that is related to the nature of migration cycles

The results of this study highlight the fact that collaboration between migrants and state officials has the potential to improve human development outcomes and foster better governance. Still, this potential appears to be more acute in specific types of regions. As Graph

7.2 illustrates, between 2002 and 2011 migration levels tended to be highest in *municipios* with development levels below .7. In turn, 3x1 investments and household remittances in *municipios* across Guanajuato were more frequent in *municipios* with development levels between .7 and .9. In this sense, when and where 3x1 investments take place seems to be closely related to the nature of migration cycles. That is, migrants generally tend to emerge from relatively less developed *municipios*. Migrants generally begin sending remittances home as soon as they can but often times they are not able to consistently send money back home until they secure stable work wherever it is that they have settled. For most migrants it takes several years, if not decades, before they are in a position to send large quantities of cash back to Mexico.³⁴ In the meantime, while migrants are establishing themselves in the U.S., hometown communities continue to change. To be sure, there are thousands of migrants that are selected out of 3x1 projects due to the simple fact that in their absence their communities have turned into virtual ghost towns that come to life once or twice a year when migrants return to celebrate patron saint days. In these communities migrants seem to be aware of the fact that large investments are futile. In turn, my analysis implies that migrants are more likely to support 3x1 projects in *municipios* in which meaningful development has taken place in their absence. Overall, these patterns do not negate the development potential of 3x1 investments; rather, they provide a more nuanced understanding of where and under what conditions 3x1 projects emerge.

³⁴It is likely for this reason that the majority of individuals that I interviewed who were participating in 3x1 projects were in their early 40s and 50s.

Graph 7.2 Migration, Remittances and 3x1 Investments in Guanajuato, Mexico



Source: Author; data from SEDESOL, INEGI.

(4) The timing of 3x1 para migrantes investments is partially dictated by political interests

The 3x1 framework allows migrants to play a hands-on role in allocating public resources. Still, my research indicates that politicians play a clear role in dictating the timing of 3x1 investments such that more investments are made in pre-election years. These finds present a cautionary tale that warns developing countries of the perils of decentralization within the context of non-democratic political spaces. Ideally, 3x1 funds would be distributed based on local demand alone. Still, this type of behavior should not come as a surprise. In most developing countries around the world, the majority of which are far from democratic, the

vehicle for political change is the same system that has delivered undemocratic politics for centuries. As Marx warned, “Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living” (Marx 1852). Thus, in the short run it is perhaps to be expected that participatory development initiatives fall short of consolidating democratic norms and practices. Still, if in the short run local governments redistribute goods such that access to health care improves, education expands and per capita income increases, it would be expected that over the long run the political system itself would be more likely to foster democratic practices and norms. At the very least, a more developed citizenry—in terms of health, education and income—is more capable of determining its own destiny.

(5) Household remittances alone drive down social and economic development.

Across the models outlined in Chapter 5, the percentage of homes receiving household remittances had a strong negative effect on levels of HDI. Specifically, household remittances were found to be associated with an increase in infant mortality rates and a reduction in school attendance and literacy rates. In rural *municipios* the number of homes receiving remittances was found to slightly improve per capita income but overall the percentage of homes receiving migrant remittances had a strong negative effect on overall human development. It would be misleading to conclude that migrant remittance adversely affect all levels of development. Rather, household remittances greatly improve the life chances of those individuals receiving the cash transfers. Still, while raw cash transfers may indeed improve the lives of those receiving them in the short run, over the long run they do not appear to contribute to human development across the wider community.

- (6) Remittances invested through the program 3x1 para migrantes have a positive effect on human development outcomes.

As documented in Chapter 5, 3x1 investments have a positive effect on overall human development across Guanajuato. Specifically, 3x1 investments play a role in reducing infant mortality rates across *municipios*. This is particularly evident in rural *municipios*. In addition, 3x1 investments improve school attendance rates, and in rural *municipios* they correlate with higher levels of per capita income. These findings reveal the role of 3x1 investments in improving human development in select *municipios* across the state of Guanajuato. Put simply, *municipios* that have participated in the 3x1 program are relatively more developed today than they were ten years ago. Given this, one might also expect that these *municipios* would have relatively more transparent and accountable governments.

- (7) 3x1 investments may play a role in abating future migration.

Regression analysis in Chapter 5 demonstrates a negative relationship between 3x1 investments and the percentage of migrants living in a given *municipio*. That is, *municipios* with relatively higher 3x1 investment rates reported lower percentage of migrants in the ensuing year. This finding is particularly important because it demonstrates that when channeled towards particular ends remittances have the potential to not only improve development outcomes but also reduce emigration. At the very least, these findings draw into question the U.S. government's multi-billion dollar investment in the fortification of the U.S.-Mexico border in recent years. Moreover, they indicate that serious discussions of how to reduce migration between the U.S. and Mexico should place more focus on how to improve community and regional development in Mexico.

- (8) 3x1 investments share a moderately positive correlation with measures of good governance.

As the results outlined in Chapter 6 show, in the state of Guanajuato good governance is at least in part a product of human development. These results mirror the findings of previous research at the national level that demonstrate that as human development begins to improve the quality of local governance responds in kind (De Dios 2008). The results from the present study, although limited in scope, indicate that 3x1 para migrantes investments share a positive relationship with relatively more transparent municipal governments. Moreover, 3x1 investments appear to encourage civic participation within municipal governments. Still, given the limited nature of the data used in Chapter 6, these findings do not necessarily imply that 3x1 investments incite better governance over the full period 2002-2011. However, the reader will recall that in Chapter 5 it was found that 3x1 investments improved human development outcomes across all of Guanajuato's *municipios* and in particular rural *municipios*. In turn, in Chapter 6 it is found that human development indices correlate in a positive direction with the quality of municipal governance. Given this, it can be inferred that during the period 2002-2011 3x1 investments in Guanajuato improved human development and also likely contributed to better governance.

Taken together these eight points suggest three potential development paths, each of which is outline in detail in Figure 7.2. The first paradigm—stagnation—suggests that more often than not migrant remittances result in a state of economic torpor. This outcome is in part due to the fact that in these communities as the dependency on remittances increases locals often turn away from the state in favor of migrant support from abroad. In time, this arrangement may bode well for the select individuals receiving remittances but it will likely have

a negative effect on the rest of the community. In this paradigm it is expected that levels of HDI actually fall, while civic participation and government transparency remain poor.

The second paradigm—growth—distinguishes itself from the former in so much that here migrants play an active role in helping their communities channel remittances towards particular ends, including investments in education and public infrastructure. Still, as political actors, migrants and their communities often remain passive. As a consequence, while this paradigm would likely result in higher HDI levels, measures of civic participation and government transparency would be expected to remain the same.

Finally, the third paradigm—democratic growth—depicts a process in which migrants and their communities actively participate in communal development initiatives, but in addition, both parties emerge as communal leaders. This pathway is distinguished from the both of the aforementioned paradigms by the fact that migrants and their communities actively engage in development projects with the state. By no means does this type of interaction in and of itself guarantee meaningful change in way of political norms and practices; however, unlike the first two paradigms, it at the very least permits for the possibility of such change. Here it is expected that RLD will not only underpin higher levels of HDI, but moreover, will foster civic participation and pressure local government to be more transparent.

<i>Development Paradigms</i>	<i>Capital Deficiencies</i>			<i>Expected Outcomes</i>
	<i>Economic</i>	<i>Human</i>	<i>Political</i>	
Stagnation →	Confronted with cash transfers from abroad.	Families fortunate enough to receive remittances are able to improve human capital by investing in private education.	Individuals abandon the state in favor of support from migrants.	HDI and civic participation decrease and government transparency remains low.
Growth →	Confronted with cash transfers from abroad and investments in public infrastructure by migrants and their communities.	Addressed at the community level by migrants willing to make investments in education facilities and public infrastructure.	Communities look towards migrants and the state as potential community leaders but remain passive actors.	HDI improves but civic participation and government transparency remain the same.
Democratic Growth →	Confronted with cash transfers from abroad, investments in public infrastructure and ample input from migrants and local politicians.	Addressed at the community level by migrants and government experts. Investments made in education facilities and public infrastructure. Efforts made to target high-need areas.	Communities look towards migrants, the state and NGOs as potential community leaders. Migrants and their communities emerge as active participants in the development of their hometowns.	Measures of HDI, civic participation and government transparency all improve, setting the foundation for more democratic norms and practices.

Source: Author.

Figure 7.2 Remittance-Led Development: A Model

Further research is needed to confirm the degree to which the paradigms outlined in Figure 7.2 hold true beyond the state of Guanajuato. Still, given the relatively large percentage of Mexico's total remittances captured annually by the state of Guanajuato (roughly ten percent), it would be expected that the findings from this study would have a certain degree of external validity. To the degree that this is true, the findings outlined in this study offer valuable knowledge for states around the world that currently have large diaspora communities.

(9) *The 3x1 Framework Depends on Policy Makers in both Mexico and the U.S.*

In 2012 I met a man named Ricardo from San Luis Potosí. Ricardo currently lives in southern Colorado, where he has been employed at a local mushroom farm for nearly a decade. Prior to coming to the U.S. Ricardo worked for a large rural development project in San Luis Potosí that was spearheaded by state officials and the World Bank. Through his employment with the state, Ricardo became quite acquainted with local development projects. When he moved to the U.S. he began sending remittances back to his friends and family members, and not surprisingly, he began thinking of different projects that he could organize to help his small hometown progress. In many respects he was the perfect candidate to start a HTA and begin organizing 3x1 projects. At the top of his list was a community center similar to the one he and his family attend in the town they live in the U.S. As he explained one evening when we were discussing the potential project, "It's not that people in my hometown don't exercise. They do. The problem is that in the wintertime the conditions are so poor outside that they fall out of the habit because there is nowhere to do exercise indoors. Here [in the U.S.] there are beautiful community recreation centers where one can go to stay in shape all year round. That's what the people need there. The importance of exercise extends throughout the community. Healthy people go to the doctor less often and work more efficiently. In this respect, a community

recreation center could help everyone be better off.” Ricardo’s project would be a perfect fit for the 3x1 program. However, as a result of his status as an undocumented immigrant, he is not eligible to register as a HTA president and thus is unable to propose 3x1 project with the Mexican government. As a result, Ricardo’s project is unlikely to ever materialize.

The stipulation that HTA leaders be legal residents of the country in which they reside helps ensure that the association’s members will be able to freely come and go from Mexico, which ultimately facilitates the planning and completion of 3x1 projects proposed by the HTA. Like most development ventures, 3x1 projects go through multiple stages and as a result HTA members frequently make site visits in order to insure that their projects are moving forward as planned. Due to the restricting nature of their legal status, undocumented immigrants are unable to fulfill this basic requirement and for this reason are not permitted to lead HTAs. Undocumented immigrants are free to contribute to the funding of 3x1 projects; still, the inability to return home and see the fruits of their labor makes undocumented immigrants less likely to feel vested in projects. With this in mind, the current focus of U.S. policy makers on controlling migration through ever-stricter immigration laws and fortress-like borders has a detrimental effect on the 3x1 program. Unfortunately, this outcome ultimately reduces the likelihood of remittances being channeled towards meaningful development in migrant-sending regions throughout Mexico.

A Word on Governance in a Globalized World

This study speaks to the fact that, in today’s global economy, the type and quality of governance practiced by sovereign nations depends a great deal on international factors. In all states, the structural conditions underpinning national economies extend beyond the immediate control of states officials. This is particularly true for developing countries, which wield far less

control in matters of international relations than developed countries. Still, as this study reveals, local agency is not entirely stripped away by the forces of globalization. Rather, through sagacious policy decisions, local actors—both within the state and autonomous from it—have the ability to leverage transnational factors in their favor. Peter Evans describes this process well, explaining that the state must remain autonomous from society in order to be "capable of constructing long-term projects of social change that transcend short-term interests of specific groups" (Evans 2004).³⁵ In this sense, according to Evans, the state is most efficient when it is insulated from undue external influence while at the same time being "embedded" in a meaningful partnership with economic actors and members of civic society (Evans 1992: 181). "Embedded autonomy," thus, is "a concrete set of social ties which bind the state to society and provide institutionalized channels for the continual negotiation and renegotiation of goals and policies" and "a combination of internal coherence and external connectedness" (Evans 1992: 164; 176). True to Evans' notion of "embedded-autonomy," the 3x1 program gives the state the ability to participate in the coordination of migrant projects while at the same time collectivizing investments, which improves on the development effects of "raw remittances." In this respect, the 3x1 framework allows migrants to channel remittances towards development projects that would be expected to have long-term impact, and in turn, migrants help state officials gauge the needs of local communities. In practice, this virtuous cycle is unlikely to occur with every 3x1 project; however, as my study demonstrates, on average 3x1 projects improve municipal development outcomes and they contribute to the progress of local governance. A brief ethnographic account from the field helps demonstrate this point.

³⁵Evans, Peter. 2004. "Government's Role in Development: The Case of Brazil under the Workers Party." Speech presented at UCLA's Department of Sociology on May 25th, 2004, Los Angeles, California. Retrieved on March 22, 2013 (<http://www.international.ucla.edu/article.asp?parentid=11691>).

On June 4th, 2011 I sat down with Jaime Garcia, who was employed by the state government as an architect. At the time of our conversation, Mr. Garcia worked for the state division of public works projects located in Guanajuato, Guanajuato. Previously, Mr. Garcia had worked in the division of government transparency and accountability. As a result of his employment history, Mr. Garcia had become quite familiar with all levels of 3x1 projects. According to him, municipal governments have a great deal of incentive to promote 3x1 projects due to the fact that, in addition to migrant contributions, they bring in much needed public works funds from the state and federal level. However, as Mr. Garcia went on to explain:

These types of projects are beneficial beyond their immediate contributions to infrastructure because many of these rural *municipios* have been historically corrupt. Traditionally, municipal presidents might spend a certain amount of their public works budget on local development but then they might take the left over money and spend it on the town's patron saint day. In the worst of cases public works money would simply disappear. In the case of 3x1 projects, migrants have changed these tendencies because migrants oversee the projects closely, which creates an oversight mechanism that did not exist previously. The *comite de obras* becomes very important because if there are any forms of irregularities they generally take note of it. They watch how many materials come in and they monitor their use. And if anything goes wrong they denounce the irregularities to the state government. When I worked in transparency and accountability I would see this and what I liked most about these groups is that they were predominately women. This is important because the 3x1 program helps communities break political norms and gender norms while at the same time promoting development.

Mr. Garcia's observations clearly capture the findings of this study. In general, as he notes, the 3x1 program channels remittances towards development projects. However, in addition, the program embeds an "oversight mechanism" into local development projects and in this manner helps promote more transparent governance at the municipal level. Most importantly, his observations attest to the success of the 3x1 program in achieving these goals in practice.

Migration itself is a form of agency in which a number of risk takers leave their current social setting in the hope of improving their life chances in a foreign land. Occasionally, these individuals return to their hometowns and claim a voice that they previously lacked. Still, even

when armed with hard-earned cash, the agency of migrants is limited in the absence of a dynamic state invested in the local development of migrant-sending communities. In this sense, state-migrant cooperation has the potential to return agency to local citizens and politicians alike. In a globalized world in which local agency seems ever fleeting, these findings have novel implications. As they concern governance, the results outlined here suggest that state officials would be wise to search out opportunities of joint-governance in which local citizens work alongside state officials in determining the ultimate destination of public funds. Such relationships appear to have the potential to return agency to local actors while at the same time improving the state's efficiency. As they concern remittances, the findings of this study suggest that in developing countries, it would behoove policy makers to channel cash transfers towards specific ends related to education, health care and economic growth. In the short run, these types of investments have the potential to improve economic circumstances as well as local governance. In the long run, by improving living conditions in hometown communities, RLD has the potential to ameliorate the very factors that drive individuals to leave their homelands in the first place. In the end, this is the only way to truly "control" migration.

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Appendix 1

Descriptive Statistics for Select Independent Variables

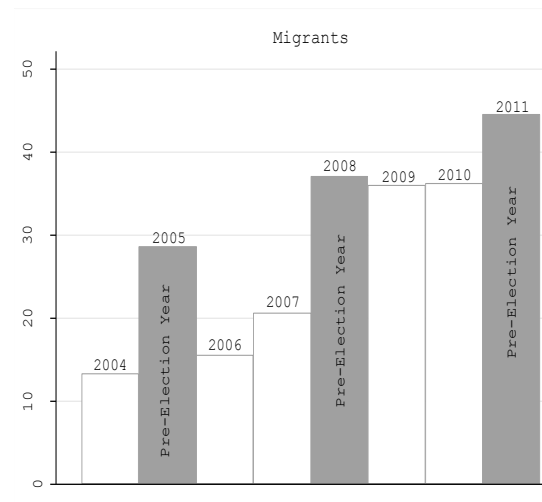
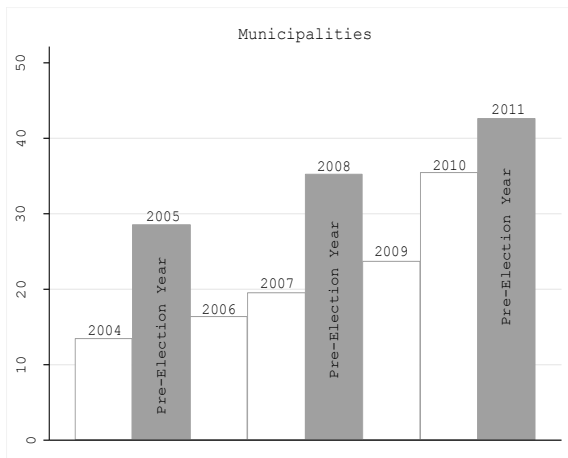
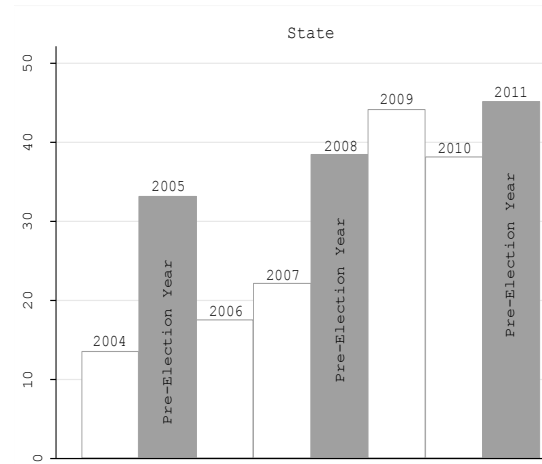
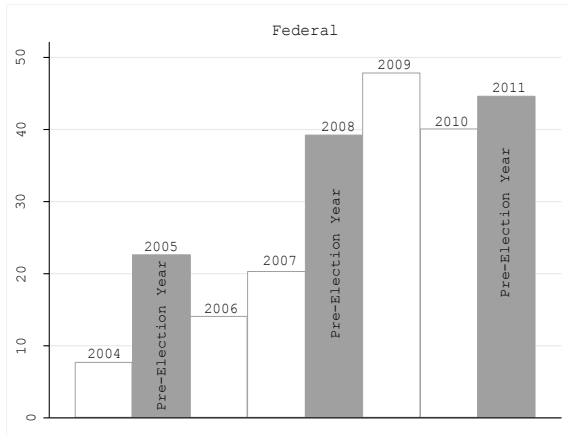
	Population	Rural (1) Urban (0)	3x1 per capita	% Household Remittances	% Return Migrants	Ramo 26 per Capita	Ramo 33 per Capita	HDI	Electoral Participation	Civic Participation	Transparency
Abosolo	84332	0	72.39	16.67	6.74	455.17	298.13	.42	49.5	39.24	66.67
Acámbaro	109030	0	12.54	17.99	5.97	340.92	293.22	.82	42.67	41.52	50
Apaseo el Alto	64433	0	31.11	15.41	6.56	444.11	295.02	.76	47.67	17.14	66.66
Apaseo El Grande	85319	0	5.11	10.44	3.39	164.02	239.01	.78	47.33	17.14	100
Atarjea	5610	1	8.09	7.67	3.01	1353.33	281.88	.71	66	24.95	58.33
Celaya	468469	0	8.55	5.48	2.22	112.63	250.01	.87	48	19.43	66.66
Comonfort	77794	0	6.17	14.63	3.68	485.96	305.42	.74	47	--	--
Coroneo	11691	1	63.35	13.93	5.85	697.30	312.58	.77	61	45.14	66.66
Cortazar	88397	0	21.16	8.49	3.65	222.27	279.98	.81	50.33	44.38	100
Cueramaro	27308	1	31.33	22.53	5.39	446.64	307.32	.77	50	22.29	66.66
Doctor Mora	23324	1	36.51	11.78	6.06	563.93	298.06	.73	61	19.43	66.66
Dolores Hidalgo	148173	0	4.39	13.11	4.91	396.28	287.05	.76	47.33	13.71	46.88
Guanajuato	171709	0	5.45	2.75	2.79	190.12	258.27	.84	48.33	33.33	100
Huanimaro	20117	1	77.04	26.48	7.64	467.41	305.74	.76	52.67	64.57	100
Irapuato	529440	0	4.10	5.33	1.89	142.78	252.63	.84	48.33	45.14	16.66
Jaral del Progreso	36584	1	97.47	11.69	3.78	279.81	269.73	.79	56	24.95	66.66
Jerécuaro	50832	0	71.88	22.62	6.84	788.96	356.12	.72	43	25.14	70
León	1436480	0	2.54	3.25	1.19	77.61	228.06	.86	53.33	20	46.66
Manuel Doblado	37145	1	45.37	23.05	8.34	465.32	308.88	.76	46.5	38.48	100
Moroleón	49364	1	31.74	10.59	3.06	187.89	266.48	.85	47.67	25.14	72.22

Ocampo	22683	1	64.91	20.72	9.04	572.66	308.87	.73	52.67	--	--
Pénjamo	149936	0	16.72	9.90	3.85	691.94	288.09	.77	41.5	24.76	66.66
Pueblo Nuevo	11169	1	38.90	21.21	3.72	568.91	306.05	.77	58.67	41.14	100
Purísima del Rincón	68795	0	33.86	8.02	4.08	92.86	194.73	.81	56.67	--	--
Romita	56655	0	26.31	12.27	5.74	540.77	315.08	.77	50.5	30.86	66.66
Salamanca	260732	0	9.41	5.61	3.18	248.83	275.35	.84	51.33	38.67	92.86
Salvatierra	97054	0	73.73	15.45	5.02	399.10	311.46	.81	43.66	36.38	100
San Diego de la Unión	37103	1	9.84	23.97	6.33	634.10	318.08	.70	49	44.95	66.66
San Felipe	106952	0	6.52	16.22	4.70	574.33	308.47	.73	47	21.52	16.66
San Francisco del Rincón	113570	0	17.53	9.91	3.68	161.32	262.79	.84	54	30.67	100
San José Iturbide	72411	0	68.43	6.56	3.68	244.88	250.09	.80	53.33	41.71	96.43
San Luis de la Paz	115656	0	3.78	12.55	3.65	465.61	288.95	.74	47.67	28	60
San Miguel	160383	0	0	8.23	4.26	373.56	279.91	.77	51.33	27.62	58.33
Santa Caterina	5120	1	102.53	14.54	5.41	1176.95	319.14	.71	58.33	27.81	66.66
Santa Cruz de J. Rosas	70323	0	53.76	5.73	3.30	226.71	251.27	.74	54.33	38.86	66.66
Santiago Maravatio	6670	1	148.82	27.75	9.09	711.79	322.99	.74	50	0	0
Silao	173024	0	9.04	7.51	3.51	194.11	241.57	.79	48	42.29	66.66
Tarandacua	11641	1	70.70	17.49	6.73	440.04	298.54	.79	47.67	27.62	100
Tarimoro	35571	1	242.29	20.1	7.95	472.54	300.71	.74	47	17.14	66.66
Tierra Blanca	18175	1	7.71	8.04	3.86	790.38	1031.91	.69	64.33	42.29	66.66
Uriangato	59305	0	59.33	8.27	1.56	167.59	266.43	.82	48.33	0	0
Valle de Santiago	141058	0	26.55	10.86	4.14	496.53	312.45	.78	47.5	22.29	50
Victoria	19820	1	4.78	10.54	3.51	705.58	327.27	.74	59.67	22.1	66.66
Villagran	55782	0	135.44	7.55	3.69	165.11	253.77	.82	57	22.1	66.66
Xichú	11560	1	25.66	21.25	4.12	1197.97	369.76	.68	61.66	50.29	64.44
Yuriria	70782	0	76.46	17.76	4.59	684.79	340.65	.75	46	19.24	66.66
AVERAGE	119075	.4	42.81	13.30	4.68	462.64	305.17	.77	51.32	29.75	67.43

Source: INEGI, CONAPO, SEDESOL.

Appendix 2

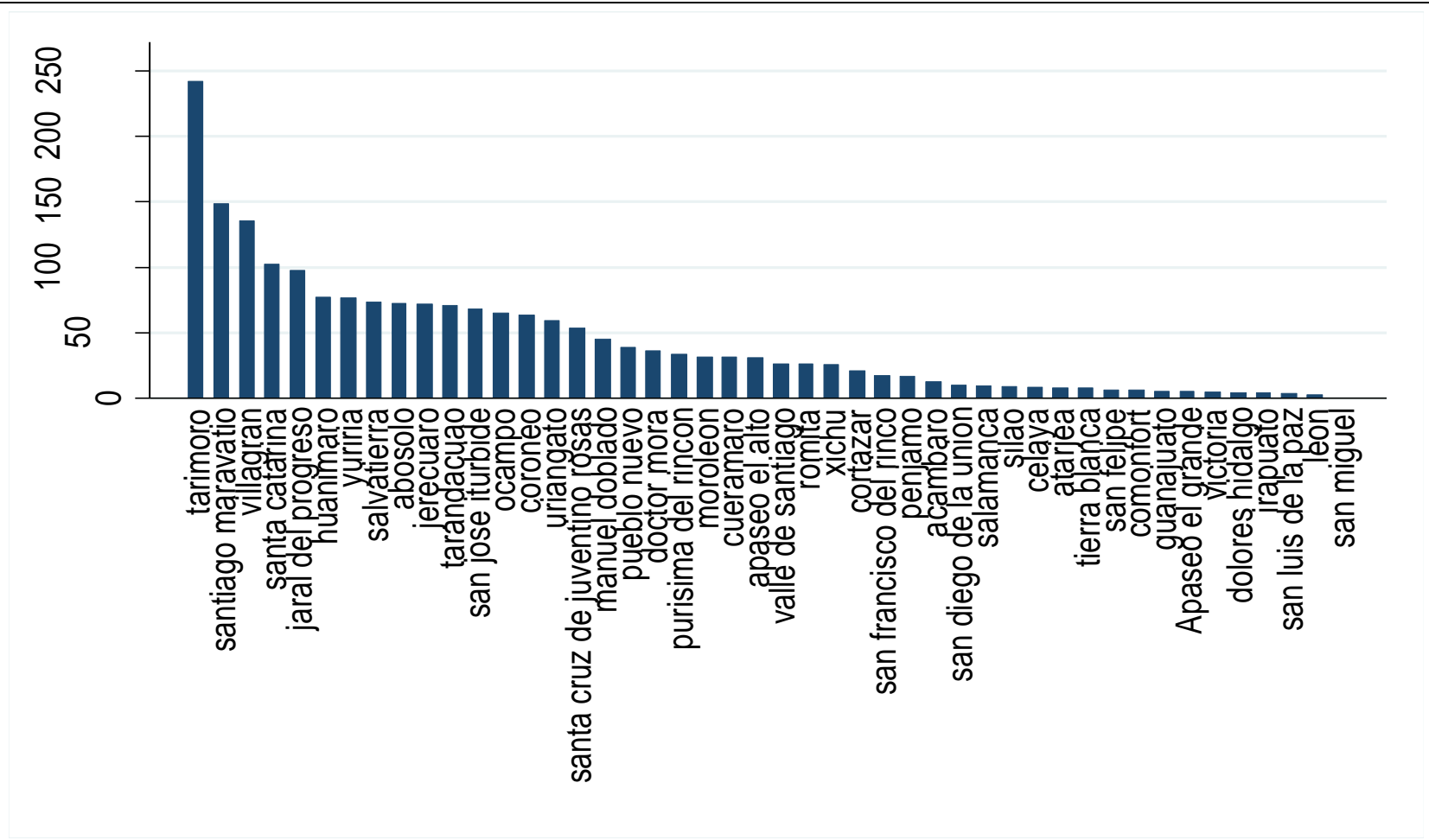
3x1 Patterns in Pre-Election Years 2002-2011(in millions of pesos)



Source: SEDESOL.

Appendix 3

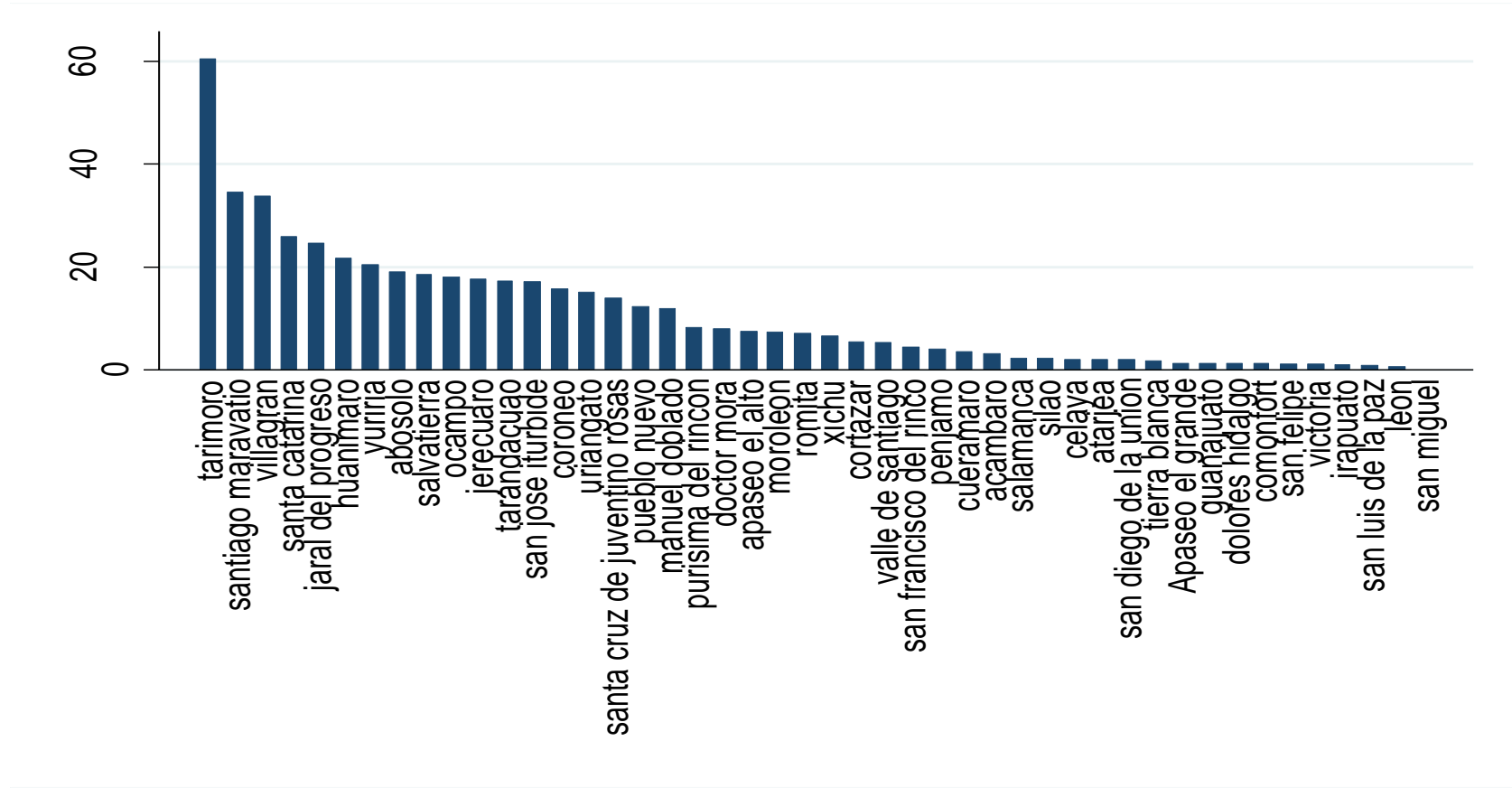
3x1 per capita investments (mean) by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 4

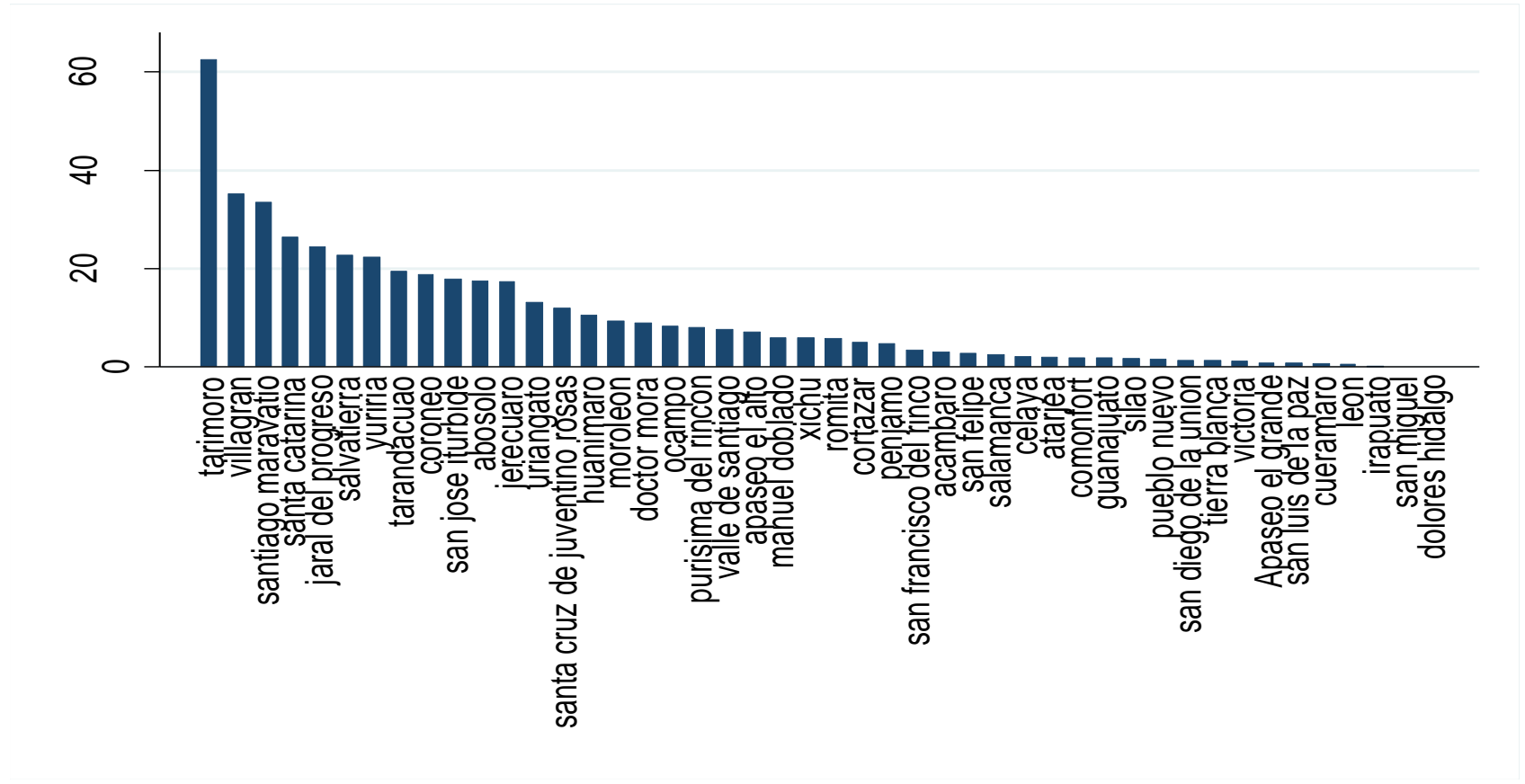
3x1 per capita investments (mean, migrants) by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 5

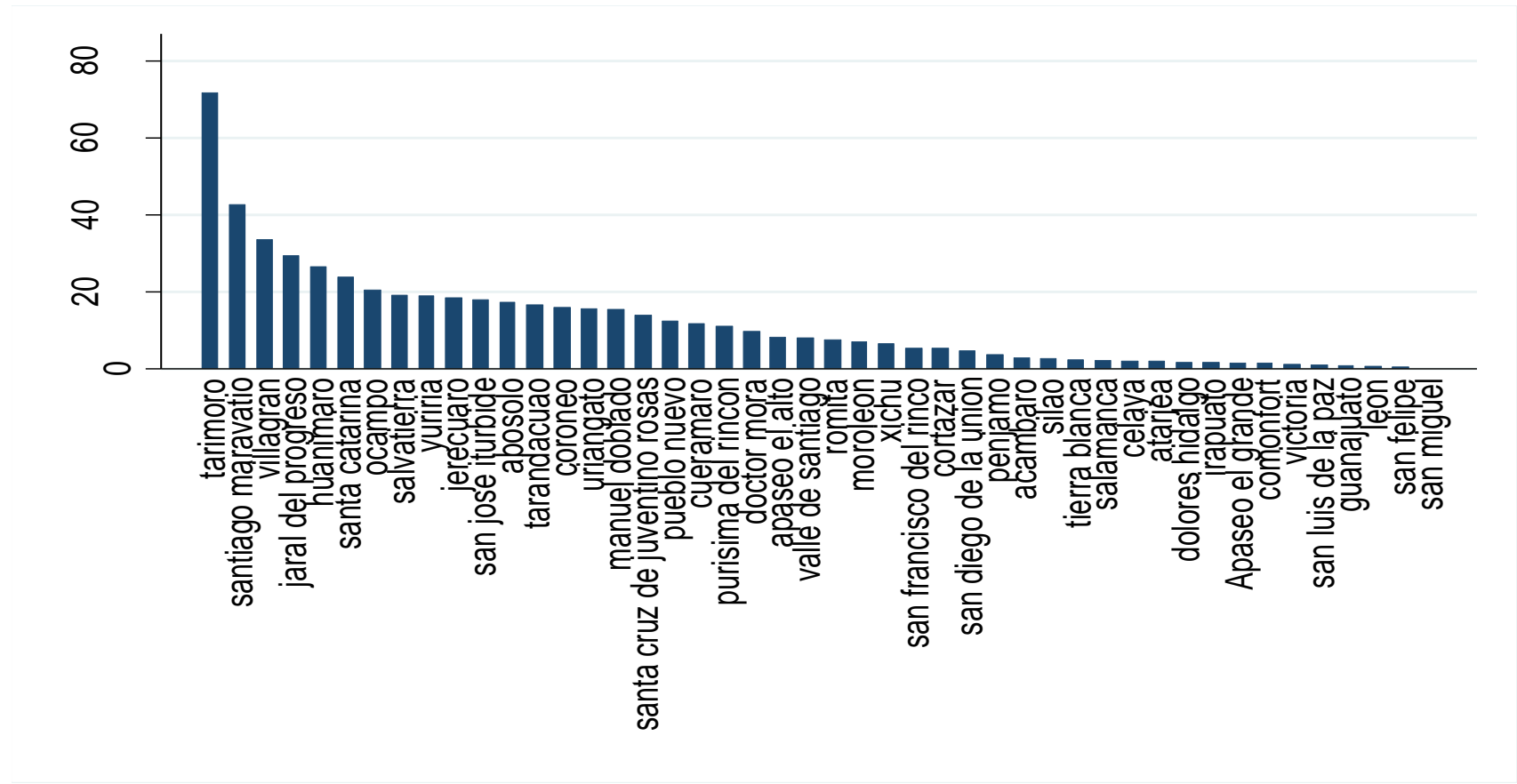
3x1 per capita investments (mean, federal government) by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 6

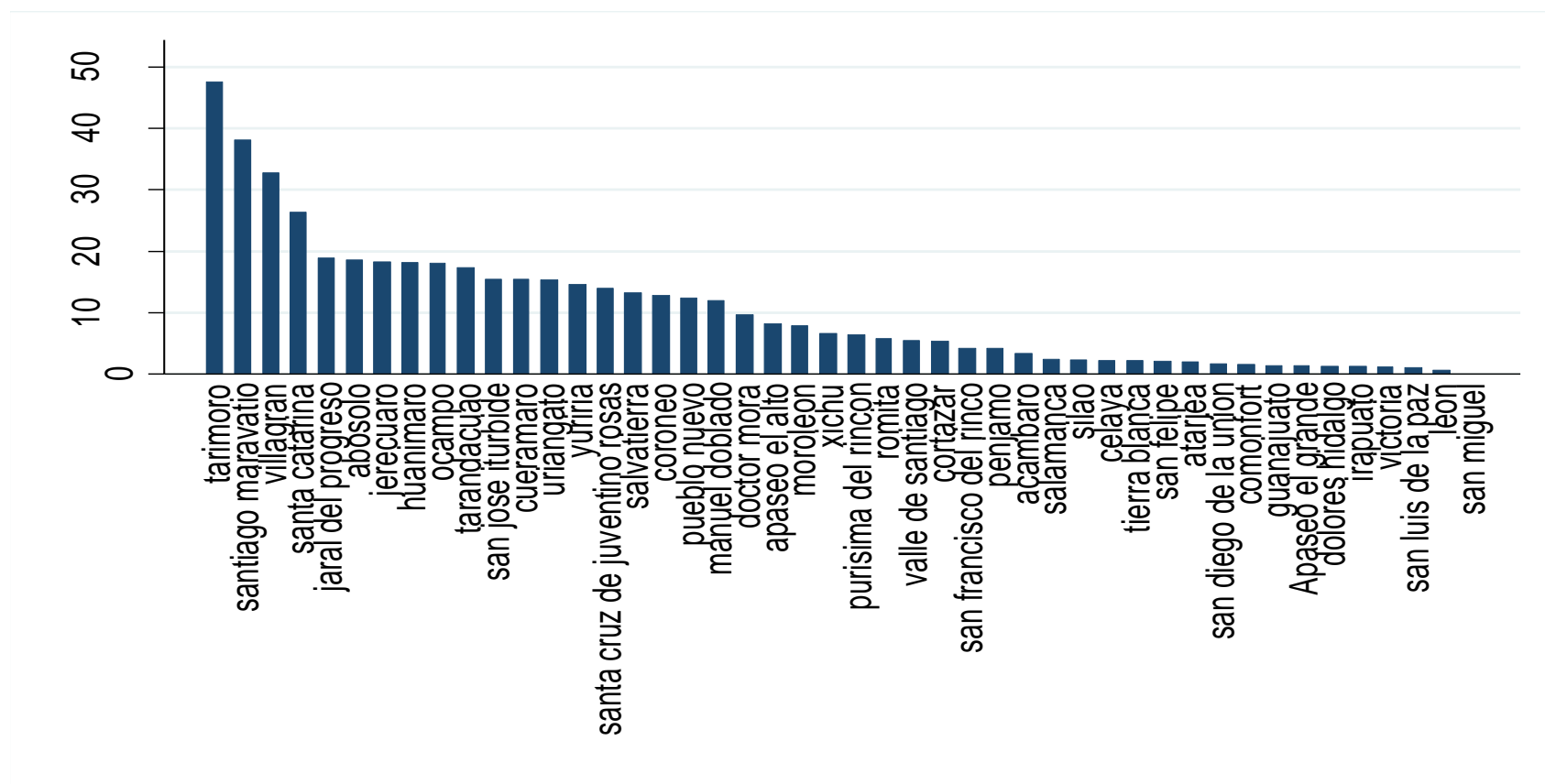
3x1 per capita investments (mean, state government) by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 7

3x1 per capita investments (mean, municipal government) by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 8

Human Development Index (HDI)

The municipal Human Development Index (HDI) is an indicator of the well-being of the inhabitants of a particular region. In this case, the unit of analysis is the *municipio*. The HDI measures progress in three basic areas of welfare, including:

- (1) Health (measured by Infant Mortality Rates)
- (2) Human Capital (measured by literacy rates and school attendance rates)
- (3) Income (measured by GDP per capita)

In order to calculate the municipal HDI it is necessary to compose separate indices for each of the aforementioned categories. Each individual index ranges from a value of 0 to 1 and is calculated according to the following general formula:

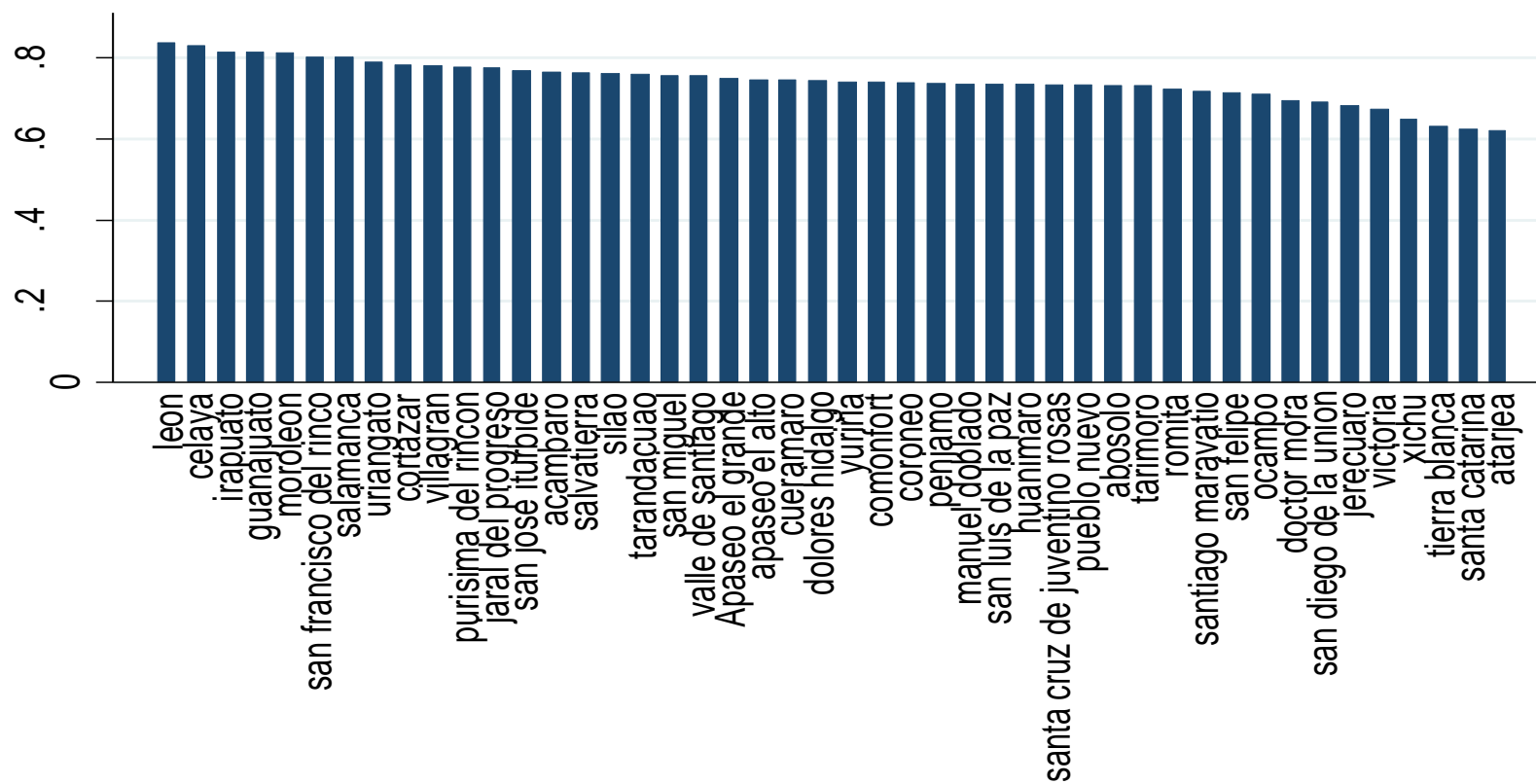
$$\text{Index Component} = \frac{\text{Effective Value} - \text{Minimum Value}}{\text{Maximum Value} - \text{Minimum Value}}$$

After calculating the score for each of the respective dimensions, the HDI is obtained by averaging the index scores for each individual component:

$$\text{Municipal HDI} = \frac{1}{3} (\text{health index}) + \frac{1}{3} (\text{education index}) + \frac{1}{3} (\text{income index})$$

Appendix 9

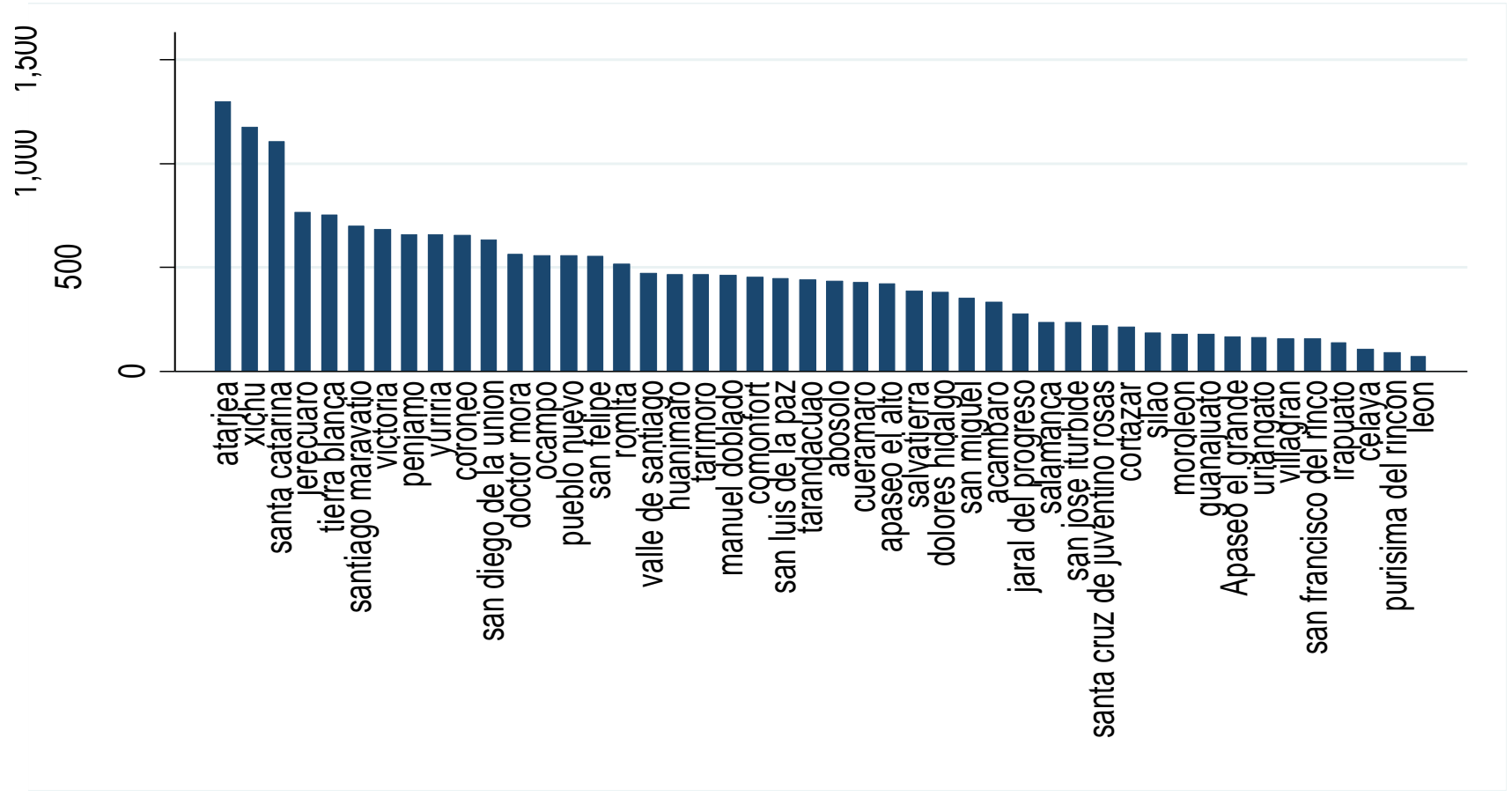
HDI by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 10

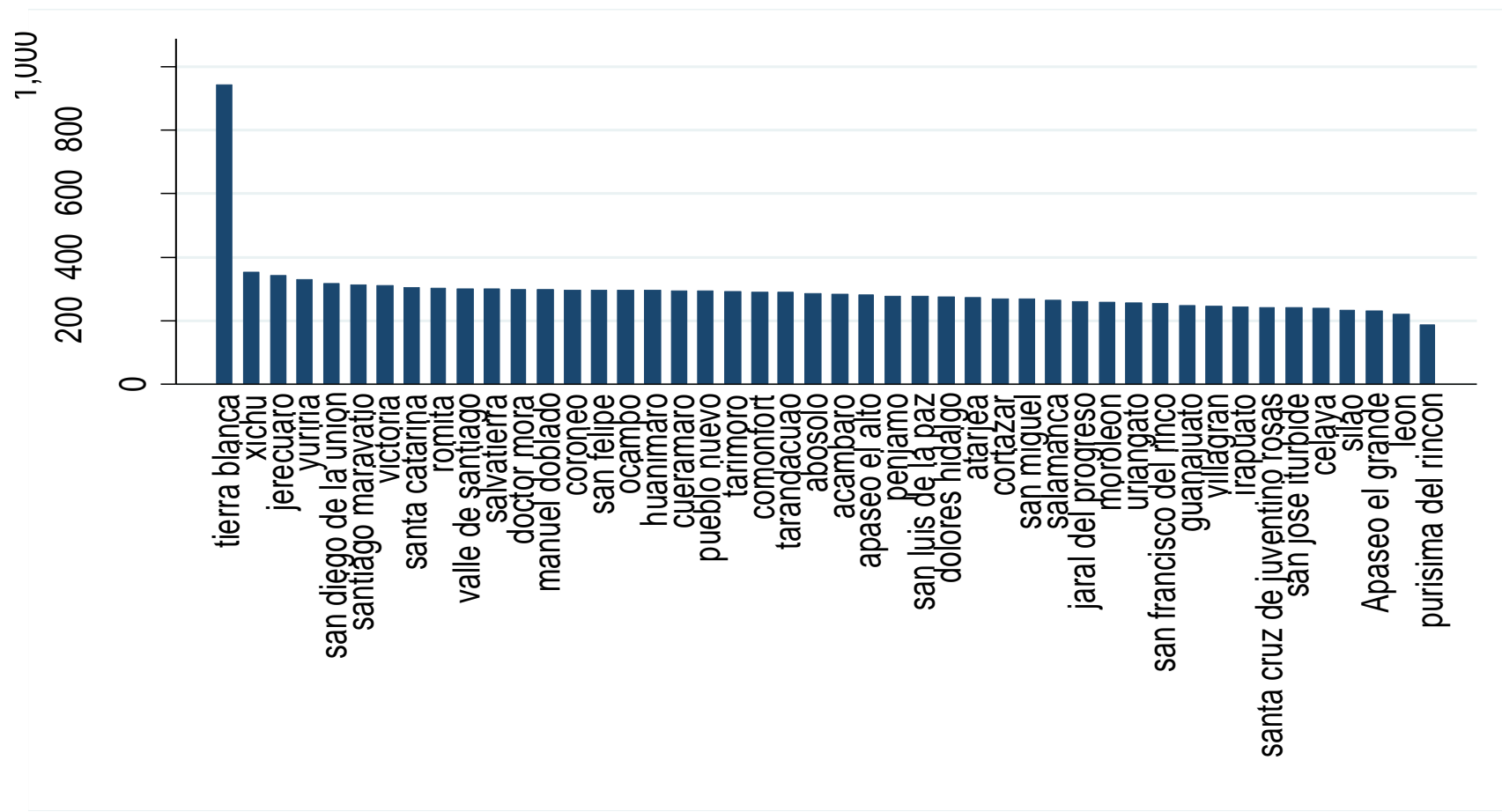
Ramo 26 per capita by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 11

Ramo 33 per capita by *municipio*, 2002-2011



Source: SEDESOL, CONAPO.

Appendix 12

List of Interviews Conducted between 2009-2012

Location	Interviewee	Date of Interview
Ojo de Agua, Jerécuaro	Pedro Martinez	Spring 2009, Summer 2011
	Miguel Martinez	Summer 2011
	Delgado 1 (Salvador)	Summer 2011
	Delegado 2 (Mani)	Summer 2011
	Marisol Martinez	Summer 2011
	Government Official (Sec. of Migrants)	Summer 2011
	Local Resident 1	Summer 2011
El Timbinal	Don Ángel	Spring 2011, Summer 2011
	Mujer 1	Summer 2011
	Mujer 2	Summer 2011
	Mujer 3	Summer 2011
	Mujer 4	Summer 2011
	Mujer 5	Summer 2011
Ojo de Agua, Huanímaro	Armando Solís (interview/speech)	Summer 2011
	Governor of Gto Juan Manuel Oliva (speech)	Summer 2011
	Sec. of SEDUSHU Marquez Marquez (speech)	Summer 2011
	Mujer 1(Hometown Committee)	Summer 2011
	Mujer 2 (Hometown Committee)	Summer 2011
Uriangato	Government Official (Sec. of Migrants)	Summer 2011
	Government Official (Sec. of Economy)	Summer 2011
San Jose de Iturbide	Government Official (Sec. of Migrants)	Summer 2010
SEDESHU Gto.	Government Official (3x1 Office, Arch.)	Winter 2009
DIF Gto.	Government Official (DIF, State)	Summer 2011, 2012
Transparencia Gto.	Government Official (Bureaucratic, Transparency)	Summer 2011, 2012
MIDE-AC	Alejandra	Summer 2011, 2012
	Anselmo	Summer 2011
AM, Leon	Editor	Summer 2011
	Journalist 1	Summer 2010, 2011,
	Journalist 2	2012
	Journalist 3	Summer 2011
		Summer 2011

Source: Author.