Collective Remittances and the State: The 3x1 Program in Mexican Municipalities

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Abstract
The Mexican 3x1 Program for Migrants is a matching-fund scheme that seeks to direct the money sent by hometown associations abroad (collective remittances) to productive uses. Federal, state and municipal governments contribute to the program, multiplying by three the contributions sent by migrants living abroad. Using municipal-level data on program participation for the period 2002–2007, we evaluate the program's capacity to target the poorest municipalities. Since migration has a nonlinear relationship with poverty and marginality, a program that unconditionally responds to project initiatives from migrant organizations is bound to be regressive due to self-selection bias. Indeed, poorer municipalities are less likely to participate, and they also receive smaller amounts of money and fewer projects than richer localities. Moreover, we find evidence of a partisan bias: electoral support for the PAN is associated with more funds or projects awarded. Given that high-migration PAN strongholds are relatively well-off municipalities, geography and politics reinforce each other in producing a regressive outcome.

Keywords: Collective Remittances, 3x1 Program, Latin America, Mexico, Poverty, Migration, Political Bias.

1. Introduction[1]

Remittances are a crucial aspect of the migratory phenomenon. They form a substantial proportion of the wealth of a large number of countries, and are among the most important sources of those countries' foreign exchange. For instance, in Mexico remittances are the second largest source of revenues after oil exports, surpassing the revenues from tourism and foreign direct investment. Whereas Mexico is the third-largest remittance recipient in the world in absolute terms (behind India and China), remittances amount to some 2.5 percent of GDP. In contrast, in other countries remittances are a vital source of income: they amount to 27 percent of Moldova's GDP, 16 percent of El Salvador's and 13 percent of the Philippines'. In the top 19 recipient countries, remittances make up more than 10 percent of their GDP (World Bank 2006).

Given the enormous importance of these capital flows and their potential to contribute to development, international organizations and governments of migrant sending and receiving countries are designing public policies to encourage remittance flows. State governments are also encouraging the so-called productive use of remittances, so that they are devoted not only to current consumption but also to the improvement of living conditions in sending countries. Unlike individual remittances, whose private character makes them difficult to monitor and influence, collective remittances are in principle available to be used as a tool to improve the provision of social and productive infrastructure in backward communities.

The Mexican 3x1 Program for Migrants is one such policy. Indeed, it is taken to be an international reference in the development cooperation between diasporas abroad and their communities of origin (World Bank 2006; Fernández, García and Vila 2006). Municipal, state and federal governments enter the picture by tripling the amount of money

sent by hometown associations (HTAs) to finance local development projects (electrification, water, road paving and maintenance, housing infrastructure, educational and health projects, and town beautification, among others). Since 2002 the program has been implemented at the federal level, and today it involves 27 Mexican states and more than 1,000 HTAs abroad. In this period it has financed more than 6,000 projects with an average annual federal investment of US$15 million (García Zamora 2007). In 2007 it received about US$22 million from the federal government; in 2008 this amount almost doubled to US$42 million.

We investigate municipal participation in the 3x1 Program for Migrants and try to assess the program progressivity, that is, whether the program is able to target relatively poor municipalities or to devote more resources or projects to those localities. We argue that the current design of the program, which gives migrants the initiative in proposing projects, tends to favor municipalities with high migration and a long-standing migration tradition, in which migrant associations are both numerous and well organized. However, since poverty imposes an important constraint on the ability to migrate and to send collective remittances (Hatton and Williamson 2002), the municipalities that are most likely to benefit from the program need not be among the poorest.

Also, we explore the political economy of the program, specifically whether there is any partisan use of it. The involvement of the three levels of government (municipal, state and federal) as well as of migrants themselves raises coordination and red-tape problems. The program design raises obvious concerns about collusion or opposition among the different administrations: does having a common party label at the three levels of government increase the likelihood of being selected for the program, regardless of the degree of poverty?

Using a unique dataset on municipal participation in the 3x1 Program for Migrants during the 2002–2007 period, we study three different measures of program participation, namely, whether any projects were funded in a municipality in a given year, the monetary amount awarded from all projects, and the number of projects funded in the municipality. We find that, after controlling for state and municipal characteristics, high-migration municipalities are more likely to participate, but the program is progressive only up to a point because there is a nonlinear relationship between poverty and the probability of participating in it. Indeed, poorer municipalities are less likely to benefit: we find that very poor municipalities receive smaller amounts of money and fewer projects than wealthier localities with similar levels of migration. This result is robust to different estimation methods and to different operationalizations of our dependent and independent variables. All in all, we find evidence that the program design has regressive consequences at the municipal level.

As for the political economy of the program, our empirical analysis reveals that municipalities and states ruled by the conservative Partido de Acción Nacional (PAN) were more likely to participate in the program than their Partido de la Revolución Institucional (PRI) and Partido de la Revolución Democrática (PRD) counterparts. Municipalities with greater PAN electoral support were also more likely both to participate and to receive more projects. This result holds after we control for migration and poverty levels. To make sense of this finding, it is important to keep in mind that the federal version of the program was launched by the PAN as a federal initiative under the administration of Vicente Fox (2000–2006), building upon the alleged success of similar programs in certain high-migration states. Also, the PAN held power at the federal level for the entire sample period of our study. Moreover, the PAN receives relatively more political support precisely in high-

migration and low-poverty municipalities. Thus, we posit that the regressive consequences of the program due to the relationship between migration and poverty are indeed reinforced by a partisan bias.

Taken together, these results raise serious questions about the design of this public policy, as it now stands, in terms of its ability to improve the conditions of the poorest localities. There is also a real concern that the program may largely benefit those states where migrants are better organized, to the disadvantage of poor communities of recent but intense migration and with lower organizational skills. Thus, before this sort of program is promoted internationally – El Salvador, Somalia, Ecuador, Colombia and Peru have already adopted similar programs (García Zamora 2007) – sober reflection is called for about the consequences of policy intervention in the management and allocation of collective remittances.

The paper proceeds as follows. In section 2 we provide an overview of the policy debate about remittances, their impact on development, and common practices in remittance management. In section 3 we set out the precedents of the 3x1 Program for Migrants, describe its current format, and hypothesize about the expected relationship between poverty and program participation. In section 4 we present the data and our empirical methodology. Section 5 discusses our main empirical findings and their policy implications. Finally, since this research cast doubts on the alleged promise of the program to reduce poverty, in our concluding section we propose some program amendments and reflect on government intervention in the management of collective remittances.

2. Remittances, development, and public policy

Parallel to the surge in international migration, international remittances have become a crucial capital flow. According to World Bank estimates, remittances worldwide amounted to US$58 billion in 1995. In 2004 they increased to US$160 billion, far surpassing international flows of official development assistance (US$79 billion) and of private debt and portfolio equity (US$136 billion). By 2004 remittance flows were as large as foreign direct investment flows (US$160 billion) (World Bank 2006). Moreover, according to World Bank estimates, 50 percent of remittance flows remain unrecorded due to the use of informal channels for transferring currency. In other words, the official figures may seriously underestimate the actual magnitude of remittances.[2]

Increased awareness and improved accounting methods of these flows have directed the attention of researchers and policymakers to the multiple effects that remittances may have on migrants' countries of origin. In turn, both host countries and home countries have put in place a range of public policies with two main objectives: to encourage the use of formal channels for remittance sending and to promote the "productive" use of remittances back home, that is, using remittances to finance projects with an eye on employment creation and growth. Notably, these interventions cast doubt on the view that remittances are capital flows free from "governmental middlemen." On the contrary, state intervention in the management of remittances is pervasive (Spector and de Graauw 2006) and is expected to increase.

Governments have plenty of reasons to try to influence both the amount of remittances that are sent back home and the way they are used. On the negative side, remittances may affect economic growth if they damage the export sector via exchange rate appreciation (Fajnzylber and López 2007) or if remittances change the propensity to work. On the positive side, remittances help to alleviate the living conditions of families with

members abroad.[3] And at best, remittances may be successfully channeled to enhance the development of communities of origin – the so-called meso level (World Bank 2006; OECD 2007).

Spector and de Graauw (2006) provide a description of public policy interventions during the life cycle of remittances (before, during and after remittance sending). Obviously, migration regulations have an impact on the amount of remittances sent back home. Thus, policies that facilitate emigration, legal recognition and job placement abroad increase remittance flows (Spector and de Graauw 2006). Policymakers have intervened to regulate transfer services and to encourage the use of formal remittance channels, particularly the official banking sector. Other policies directed at preserving the political and social attachments of migrants abroad (such as providing voting rights, dual citizenship and cultural and educational programs) aim at keeping migrants' loyalties alive in the event of family reunification and the permanent settlement of migrants in receiving countries.

Finally, governments have offered incentives (mostly in the form of tax breaks) to save and to invest remittances once they have arrived in the sending countries. Governments have also encouraged the participation of migrants in the development of community projects. In particular, sending states around the world have courted organizations of migrants abroad, encouraging their activism by building upon their spontaneous initiatives to finance community projects and to engage in philanthropic activities. Overall, such public interventions challenge the view of remittances as immune to political influence.

Mexico has been an active country on all these fronts. Since the 1990s, consular activity and official programs to assist migrants abroad have multiplied. Starting in 1997, Mexico allowed for dual nationality. In 2006 Mexicans abroad were allowed to vote in the

presidential election. From 2002, under the US–Mexico Partnership for Prosperity Program, Mexicans could use the so-called *matrícula consular* to open bank accounts in the United States and transfer money, regardless of their legal migration status. Since 1999 the cost of remittance sending in the US–Mexico corridor has been reduced by about 60 percent. State and federal administrations have courted the Mexican diaspora, seeking its help in improving the living conditions of its communities of origin (Burguess 2005; Alarcón 2006; Spector and De Grauw 2006; World Bank 2006; Fernández, García, and Vila 2006).

The 3x1 Program for Migrants is one such policy. Whereas the program has been publicized in policy circles as an example of a transnational policy, "a careful evaluation of support to HTAs through matching grant schemes and other means is yet to be undertaken" (World Bank 2006: 94). Indeed, numerous discussions of the program exist (Moctezuma 2002; Goldring 2004; García Zamora 2006; 2007; Iskander 2005; Moctezuma and Pérez 2006; Burguess 2005), but they are mostly based on anecdotal evidence or on case studies whose selection is not always theoretically justified. Since most of these studies focus on high-migration states or on localities with well-organized migrants, they cannot offer a conditioned comparison between communities that participate in the program and otherwise similar ones that do not participate. Nonetheless, it is remarkable that these evaluations point to a relatively limited impact of the program on community development per se but identify other potential virtues—such as in strengthening the linkages between migrants and their communities, or improving local governance and accountability. The studies by Burguess (2005; 2006) and De Graauw (2005) anticipate in different ways the hypothesis that we systematically test here: because the program is based on migrants' demands, organized migrants have an advantage in project allocation, which does not necessarily

coincide with the program's stated objective of reaching the poorest areas. Indeed, as our evidence indicates, it does not.

3. Mexican migration, poverty, and the 3x1 Program for Migrants

The international migration of Mexicans to the US at the start of the 21st century can be summarized in terms of three features: a common border of more than 3,000 km, a long-standing tradition of more than 100 years, and a diversity of origins in Mexico and of destinations in the US Today, 96.2 percent of Mexican municipalities register international migration. Approximately 450,000 mostly young and male Mexicans migrate each year.[4] More than one million Mexican households benefit from remittance flows. For 40 percent of them, remittances represent their sole or main source income (García Zamora 2005; Soto and Velázquez 2006). In recent years migration has intensified, its destinations have become more permanent, and its origins have become more urban and diversified (Leite and Acevedo 2006).

The precedents of the 3x1 Program for Migrants are found in the state of Zacatecas, which is the state with the strongest and oldest migratory tradition in Mexico. The Federation of Zacatecan Clubs first started to raise funds to help expatriates abroad (mostly in the event of illness or death) and to fund social and recreational projects back home in the early 1960s.

Building upon these initiatives, in 1986 the 1x1 Program was born under the auspices of PRI governor Genaro Borrego. In its initial design, the program contemplated just state support to double the amount of money sent by migrants associations. Although just 28 projects were carried out under the program between 1986 and 1992, the initiative encouraged the Federation of Zacatecan Clubs to undertake more and more philanthropic activities. Parallel to President Carlos Salinas's (1988–94) interest in courting migration,

the Zacatecan initiative received further support under Borrego's successor, Arturo Romo, resulting in the program of International Solidarity among Mexicans, also known as the 2x1 Program. Under this scheme not only the state but also the federation matched the contributions of HTAs. Despite a temporary reduction in support for the program during President Ernesto Zedillo's term (1994–2000), the program continued to operate without the support of the federation but instead with the support of the municipalities. Under PRD governor Ricardo Monreal, the program gathered momentum, in part in recognition of the crucial support of migrants for Monreal's platform. By 2002, in the state of Zacatecas, a total of 868 projects had been funded with an investment of 464 million pesos (Burguess 2005). In the meantime, the initiative had been replicated by the state governments of Jalisco, Durango and Guanajuato.

Initiatives to encourage the formation of HTAs abroad multiplied under Carlos Salinas. In 1989 Salinas launched the Paisano Program and in 1990 the Program for Mexican Communities Abroad, which was based in the Foreign Ministry and operated through a network of Mexican consulates, institutes and cultural centers. In turn, the Program for Mexican Communities Abroad promoted the formation of State Offices for Mexicans Abroad. Among other things, these offices promoted the formation of HTAs and publicized schemes of collaborative partnership among HTAs and their communities of origin. It is no coincidence that during this period the number of migrant clubs abroad surged (Orozco 2003; Orozco and Welle 2005). Between 1995 and 2002 the total number of registered clubs grew from 263 to 580, and they federated at an increasing pace (Burguess 2005). Alarcón reports that there are 2,000 Mexican HTAs in the US, of which some 700 are formally registered (in Spector and de Graauw 2006).

When Vicente Fox came to power in 2000, he renewed his commitment to work with HTAs and restored the federal support for collaborative programs that Ernesto Zedillo had suppressed. Fox set up the Instituto para los Mexicanos en el Exterior, and resurrected the matching-grant program with federal support. The 3x1 Program–Citizen Initiative was started in 2002, and later became the 3x1 Program for Migrants.

The purpose of the program is to increase the coverage and the quality of basic social infrastructure in localities with a high proportion of their populations suffering from poverty or social backwardness or experiencing high migration. It follows the investment initiatives of migrants living abroad (Soto and Velázquez 2006). This is not the only objective of the program, which also aims to strengthen the links between migrants and their communities through collaborative development projects and the organization of migrants abroad.

In its current design the 3x1 Program for Migrants is administered by the Mexican Ministry of Social Development (SEDESOL) following the initiatives of hometown associations. A Committee of Validation and Attention to Migrants (COVAM), which includes representatives of the four parties involved (migrants and municipal, state, and federal governments via SEDESOL), prioritizes and decides on the technical viability of the projects. Each of these parties contributes 25 percent of the total cost of the approved project. The degree of participation of different government levels can vary: for instance, the federation can cover up to 50 percent of the project if its social impact justifies it.[5] However, this is rarely observed in practice. Since the maximum federal participation amounts to about US$67,000, the total cost of each project funded can be as high as US$268,000.

According to our data, all Mexican states except Baja California Sur, Coahuila, Quintana Roo and Tabasco have already participated in this initiative. However, the percentage of municipalities benefiting from the program has ranged from just 10 percent in 2002 (239 municipalities out of 2,435) to 20 percent in 2007 (487 municipalities out of 2,439).

We study the program from the perspective of its ability to target communities living in poverty and suffering from social backwardness as opposed to reaching only communities of high migration. Given that the program design gives the initiative to HTAs, it certainly prioritizes the areas with the highest migration traditions. However, the program objective of targeting the poorest communities will be achieved only as long as the areas of highest migration are also among the poorest ones. As it turns out, this is not the case. For instance, in 2007 68 percent of the federal money was invested in municipalities of low and medium poverty, and only 24 percent was invested in poor and very poor municipalities (Aparicio et al. 2007). Moreover, 70 percent of all migrants' clubs are affiliated with the states of Guerrero (PRD), Guanajuato (PAN), Jalisco (PAN) and Zacatecas (PRD) (Zárate 2005). Not surprisingly, in 2007 Zacatecas, Jalisco and Michoacán (PRD) hosted 59 percent of the projects and received 54 percent of the total federal resources allocated to the program (Aparicio et al. 2007).

To the extent that matching grant programs respond to the income distribution of the actors involved, it is expected that wealthier communities will be more likely to participate than poorer ones. Therefore, a program that *unconditionally* supports migrant and hometown associations' initiatives will not be progressive if poverty and migration are not directly correlated. If this is the case, the program will be biased against poor communities. On the other hand, to the extent that hometown associations face fixed costs, require time

and a certain level of organizational skills to emerge, they will be more likely to succeed in relatively well-off communities. Based on this reasoning, we propose the following hypothesis:

> **H1 – self-selection bias:** Given that migrants self-select into the 3x1 Program, and that Mexican migration is not evenly distributed relative to poverty, the program disproportionably benefits relatively well-off municipalities to the detriment of poor ones.

Systematic research on the politics of collective remittance management is practically non-existent. There is incipient research on the political consequences of remittances at the local level, but they refer to private, not collective, remittances. For instance, Pfutze (2007) reports that the additional income from private remittances may weaken the power of clientelistic arrangements and vote buying at the local level. The author reports a greater likelihood of the opposition winning in Mexican municipalities where a high proportion of households receive remittances. However, anecdotal case studies suggest that particularistic uses of the 3x1 Program may not have been rare. This seems to be especially true in municipal politics, where collective remittances can supplement the meager finances of local governments (Valenzuela 2006). Thus, migrants have been actively courted by municipal and state politicians, and they have been granted representation in local politics in return (Jiménez 2008).

Some examples may illustrate the particularistic use of the program. In their study of the 3x1 Program in Jalisco, Hernández and Contreras (2006) report that local politicians have used it to increase their popularity. In her study of the municipality of Jala, in the state

of Nayarit, Imaz (2003: 396) asserts that "migrants always took positions and in each election they were requested to give their monetary support and exert their influence in favor of a particular candidate…They [migrants] were actively sought because they could mobilize people." In turn, migrants declared that local politicians *"los politiquean* [manipulate them]" (Imaz 2003: 400). As mentioned above, in her account of the evolution of the 3x1 Program, Iskander (2005) explains that the momentum given to the program in Zacatecas after Governor Monreal's election – which included granting cabinet-level positions for migrants – was part of Monreal's reward to the HTAs for their support for his candidacy. All this suggests that remittances have empowered migrants as strategic municipal political allies. Indeed, knowing the resources they possess, migrants have been able to shape the rules of the program to secure a monopoly over it.[6]

The combination of empowered migrants and clientelistic local politics may have fomented the use of the program as a rewarding tool. This casts doubts on a somewhat optimistic vision of migrant clubs and international migration in general as an engine of democratic change in their communities, via the import of practices and values to which they are exposed while abroad. In her study, Imaz concludes that "it is hard to distinguish in theory when these groups support democratic processes and when they do not" (2003: 416).[7]

With this background in mind, we also explore the political economy of the program by testing for different sorts of political or partisan bias in fund allocation. On the one hand, a federal PAN administration governed throughout the entire sample period we survey. Thus, SEDESOL, the federal counterpart of the program, could bias funds and project allocation in favor of PAN-ruled states or municipalities. Indeed, we argue that the PAN may have good reasons to do so since its support is stronger in low poverty municipalities

with high migration. Note that, if this is the case, the regressive outcome mentioned before would be reinforced through this political mechanism. On the other hand, since the program requires the tripartite involvement of three different levels of government –municipal, state and federal–, this provides ground for hypothesizing that shared partisanship is likely to bias resource allocation: states are likely to be more supportive of projects proposed by municipalities with the same party label. Thus, we hypothesize that partisanship shared between municipal and state governments will increase the chances of program participation. Therefore, we expect that:

> **H2 – partisan bias:** All else equal, states and municipalities ruled by the PAN, as well as PAN strongholds, are more likely to participate, and to receive more funds and projects, than those dominated by other political parties.
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> **H3 – coordination bias**: All else equal, municipalities ruled by the same political party as their state governments are more likely to benefit from the program, than called vertically divided or juxtaposed governments.

4. Data and empirical methods

To test our hypotheses, we collected data from the 3x1 Program for Migrants for all Mexican municipalities that participated during the 2002 to 2007 period (SEDESOL). The dataset includes yearly information on whether a given municipality participated in the program, the total amount invested, and the number of projects awarded in any given year. Note that we do not have information about the complete pool of project applications. Instead, we have information only on the projects that were approved and funded. On

average, we have yearly data for more than 2,400 municipalities during six years of program operation, which amounts to more than 14,000 municipality-year observations.

To assess the effect of migration, poverty and political covariates on participation in the 3x1Program in Mexican municipalities, we estimate a series of regression models of the following form:

$$Pr(\text{PARTICIP}_{ijt} = 1 \mid \boldsymbol{X}) = F(\beta\text{MIGRATION}_{ijt} + \chi\text{POVERTY}_{\mathbf{ijt}} + \text{SOCIODEMOG}_{\mathbf{ijt}}\delta + \text{POLITICS}_{\mathbf{ijt}}\phi + \mu_j + \nu_t) \quad (1)$$

$$\text{AMOUNT}_{ijt} = \alpha + \beta\text{MIGRATION}_{ijt} + \chi\text{POVERTY}_{\mathbf{ijt}} + \text{SOCIODEMOG}_{\mathbf{ijt}}\delta + \text{POLITICS}_{\mathbf{ijt}}\phi + \mu_j + \nu_t + \varepsilon_{ijt} \quad (2)$$

$$Pr(\text{NUMPROJECTS}_{ijt} = k \mid \boldsymbol{X}) = F(\beta\text{MIGRATION}_{ijt} + \chi\text{POVERTY}_{\mathbf{ijt}} + \text{SOCIODEMOG}_{\mathbf{ijt}}\delta + \text{POLITICS}_{\mathbf{ijt}}\phi + \mu_j + \nu_t) \quad (3)$$

where the subscripts refer to the *i*-th municipality in the *j*-th state, and *t* refers to a given year. The dependent variable (program participation) is measured in three different ways. First, PARTICIPATION is a dichotomous variable indicating whether a particular municipality in a given year had any project funded by the program. Second, the variable AMOUNT measures the total amount of funds (from all four sources, in constant 2006 pesos) invested in a particular municipality-year as a result of program participation. Finally, NUMPROJECTS measures the number of projects that were awarded to a particular municipality in a given year. For example, in 2003 Tanhuanto, a municipality located in the

state of Michoacán, participated in the 3x1 Program with six projects and a total investment of approximately US$95,000.

Our main independent variables are different measures of migration intensity, poverty and political conditions.[8] Measures of migration and poverty were obtained from CONAPO and INEGI, respectively. The variable MIGRATION is an ordinal variable that classifies municipalities in six categories encompassing high, very high, medium, low, very low and no migration municipalities. This variable is a categorization of the MIGRATION INDEX, a continuous variable that we used in some of our statistical specifications. The MIGRATION INDEX is a principal-components score based on census data on the number of family members who live abroad, circulatory migration, and return migration in the household. The measure of POVERTY is a categorical variable that classifies Mexican municipalities in high, very high, medium, low and very low poverty or marginality. It is derived from the continuous POVERTY INDEX, which summarizes information on literacy rates, income levels and social infrastructure in each municipality.

To test our second set of hypotheses, the POLITICS vector includes indicator variables that capture the party label of municipal and state governments. These variables were set to control for governments led by the PAN, the PRI or the PRD – the three main political parties in Mexico. In some specifications, we also consider the VOTE SHARES of each of these parties in municipal races (CIDAC), and the vote share difference between the PAN and the PRI. SHARED PARTISANSHIP is a dummy variable that equals 1 when the municipality and the state are governed by the same political party, regardless of party label. Also, to measure electoral competitiveness, we use the MARGIN of victory between winner and runner-up in municipal races. LOCAL ELECTION is a dichotomous indicator that controls for the holding of municipal elections in a given year. To control for the

heterogeneity of Mexican municipalities and public service provision, the SOCIODEMOG vector includes the log of population as well as the coverage of water, sewage and electricity (CONAPO). Finally, μ_j and ν_t represent respectively state and year fixed effects, which we use in our models to capture the time-invariant heterogeneity of the Mexican states as well as any systematic year-by-year changes in the size of the program or its rules of operation.[9]

Our estimation techniques vary according to the nature of the dependent variables. Thus, for the binary dependent variable PARTICIPATION, we estimate maximum likelihood logistic models as indicated by equation (1). For the AMOUNT variable, we estimate OLS models following equation (2). To verify the robustness of our estimates for the AMOUNT variable, we estimate both a two-way fixed effects OLS model and a Heckman sample selection model. The first stage or selection equation of the Heckman model estimates the likelihood of program participation using a probit model, which is then used in a second stage to estimate the amount awarded while controlling for the program selection process. As we stressed before, program participation depends on migrants' initiatives, which may create a bias in favor of municipalities of high and long-standing migration tradition. Thus, we use the MIGRATION INDEX as the selecting variable in the Heckman model.

Since the PNUMPROJECTS dependent variable is a count measure, we estimate another maximum likelihood model, in this case assuming a negative binomial distribution. Our over-dispersion tests suggested that a negative binomial was preferred to a Poisson distribution. Furthermore, since only a fraction of all municipalities participate in the program, we estimate a zero-inflated negative binomial model (ZINB) for the number of projects that a particular municipality was awarded in a given year.[10] As in the Heckman

models, we use the MIGRATION INDEX to predict the cases with no projects awarded at all.

Figure 1 presents two box plots that illustrate the relationship between migration and poverty. We measure migration using CONAPO's index of migration intensity (left panel) and the percentage of households that receive remittances (right panel). As the figure reveals, migration is greater in medium- and low-marginality municipalities. The richest and poorest municipalities have the lowest migration intensity. In fact, the *lowest migration* intensity is found in *very high* poverty municipalities. Similarly, the highest percentage of remittance-receiving households is located in municipalities of low and medium poverty. And again, the poorest municipalities have the lowest percentage of remittance-receiving households. Taken together, these descriptive data indicate a nonlinear relationship between migration and poverty: very affluent and very poor municipalities have the lowest migration intensity and the lowest percentage of remittance-receiving households. Given this curvilinear relationship, we include the POVERTY INDEX in linear and quadratic form in our specifications.

*** Figure 1 about here ***

Recall that the initiative to participate in the 3x1 Program lies with migrants' HTAs. But HTAs take time to emerge and acquire the necessary organizational skills. As a result, HTAs are likely to cluster in areas not only of high migration but also of long-standing migration tradition. Given this premise, it is not surprising to find preliminary evidence suggesting that high-migration municipalities and relatively affluent municipalities, are the ones that have most often benefited from the program.

Figure 2 illustrates these relationships. The box plot graphs the number of projects and the total amount of resources devoted by the program to municipalities of different poverty levels during the 2002–2007 period. As expected, low- and medium-poverty municipalities were awarded more projects and greater funding than those with high poverty levels. By granting migrant organizations the initiative to self-select projects, the program design seems to produce a perverse outcome: since organized migrants do not come from the poorest Mexican municipalities, the program is biased against poor and very poor communities despite the fact that its rules of operation state the objective to target poor communities.

*** Figure 2 about here ***

If the program favors relatively well-off municipalities to the detriment of poor ones, can this bias be partly motivated by partisan or political reasons? Figure 3 depicts municipal election returns for different migration and poverty categories. It suggests that the PAN may have good reasons to actively use the program to reward its strongholds. Whereas the PRI leads in high-poverty municipalities regardless of their migration levels, PAN voter support increases with migration intensity in municipalities with medium to very low poverty. Thus, a political bias may in fact reinforce the self-selection bias that we have hypothesized, yielding a more regressive outcome: if the program has a bias in favor of the PAN, it will not only benefit high-migration municipalities but also favor the relatively well-off ones.

*** Figure 3 about here ***

Figures 1 and 2 lend support to our first hypothesis regarding the self-selection bias of the 3x1 Program. And Figure 3 is suggestive of a potential partisan bias in the selection of municipalities that participate in the program, to the advantage of municipalities where PAN electoral support is stronger. However, these figures indicate only pair-wise relationships, that is to say, they do not control for other factors that may determine successful participation in the 3x1 Program. To verify which of our hypothesized biases is supported by evidence in a more controlled setting, we turn now to multiple regression analysis.

5. Results and discussion

To estimate the conditional effect of migration, poverty and political covariates on participation in the 3x1 Program in Mexican municipalities, we estimate equations (1), (2) and (3) with a series of multiple regression models using a panel dataset that comprises data from more than 2,400 municipalities over the 2002–2007 period. TABLE 1 presents descriptive statistics of our data for all municipalities in the sample period, and for the subset of municipalities that participate in the program. About 11.4 percent of municipalities have participated in the program, with an average investment of US$146,000 on 3.4 projects. As the table indicates, the poverty levels of participating municipalities are below the full sample average (0.012 vs. -0.33), and their migration intensity is well above average (0.038 vs. 0.89). Water, sewerage and electricity coverage is also higher than average in participating municipalities. Relative to overall sample averages, states and municipalities governed by the PAN and the PRD are overrepresented in the participating

sample, whereas the PRI is underrepresented. Shared partisanship between local and state governments is also higher than average, while electoral competitiveness is slightly lower.

*** Table 1 about here***

To test whether these differences remain significant when other factors are held constant, we estimate a set of multiple regressions. TABLE 2 summarizes the results from six different model specifications for our three measures of program participation: whether the municipality participated in the program, the total amount of money received and the number of projects awarded to a municipality in a given year. Our main independent variables are migration and poverty levels, with other socio-demographic characteristics of municipalities controlled for.

Model 1 in TABLE 2 presents a baseline logistic estimation of program participation, coded as a binary outcome. Since we do not assume ex ante a monotonic nor a linear relationship between program participation and migration or poverty levels, our first specification includes indicator variables for each category of migration (coded from no migration to very high migration), and for each level of poverty (coded from very low to very high poverty). With state and year effects controlled for, the model indicates that the likelihood of program participation significantly increases with migration intensity. On the other hand, high and very high poverty municipalities are also more likely to participate than localities with very low poverty levels. Program participation also increases with (the log of) population size, a variable that is strongly correlated with municipal income – a result that will prove to be robust in all other models. Also, water and sewerage coverage positively affect participation.

In principle, the finding that program participation is increasing with poverty levels seems to run against our hypothesis concerning the regressive character of the 3x1 Program. But focusing on participation as a binary outcome obscures the fact that some municipalities receive more funds and projects than others. Thus, Model 2 directs attention to the total amount of resources devoted by the program to a given municipality. This model presents two-way fixed effect OLS estimates for the amounts awarded. As expected, results indicate that municipalities with high or very high migration receive significantly larger amounts of money (between US$18,000 and US$24,000 more) than those with very low migration. However, now we find that low poverty municipalities receive larger investments than high or very high poverty municipalities. In other words, the amounts awarded by the program decrease with the relative backwardness of municipalities.

Given that migration intensity is not randomly or evenly distributed in Mexican municipalities, it may be the case that our previous OLS results have a sample selection problem: if some municipal or state features influence both program participation and the amounts received, OLS estimates may be biased. Moreover, since we observe only the amount of money awarded to participating municipalities, and zero otherwise, we need to correct for the incidental truncation of the amount variable. Models 3 and 4 in TABLE 2 address this issue with a Heckman sample-selection estimation, where we use the migration index and a quadratic poverty term to identify the selection equation.[11] Once we control for the selection process, we find evidence of a nonlinear relationship between poverty and program selection. Indeed, the quadratic term has a negative and statistically significant coefficient, which is consistent with the curvilinear relationship that we found in the descriptive statistics, and suggestive of a regressive bias in program participation. The poorest 20 percent of municipalities are less likely to participate in the program than those

in the medium income deciles. Moreover, we find again that poverty is negatively correlated with the amounts received, significant at the 10 percent level.

Our third dependent variable measures the number of projects awarded to a particular municipality. To assess whether our previous results hold if we focus on this count variable instead of the amounts awarded, Models 5 and 6 in TABLE 2 present estimates from a zero-inflated negative binomial regression (ZINB). As in our previous Heckman model, we use migration index and poverty (with a quadratic term) to predict program *non*-participation before estimating the count model.[12] Model 5, which is the zero inflation equation, indicates that the probability of *not* being awarded a project decreases with migration but increases with poverty. In turn, the count equation in Model 6 indicates that increasing poverty levels lead to fewer projects awarded, significant at the 1 percent level, with population size, coverage of public services, and year effects controlled for. As a robustness check, we also estimated a standard negative binomial model and our substantive results hold: the number of projects awarded are increasing on migration and decreasing on poverty.

To sum up, our regression estimates in TABLE 2 indicate that migration intensity and population size are very good predictors of program participation for every one of our three dependent variables. Poverty levels measured are positively correlated with the likelihood of program participation as a binary outcome, but only up to a particular level of marginality, after which the likelihood of program participation decreases. On the other hand, poverty is negatively and significantly correlated with the amounts of money received and the number of projects awarded to municipalities – a result that lends support to our self-selection bias hypothesis.

Table 2 about here

To test our political-bias hypotheses, TABLE 3 adds a number of political covariates to the previous Heckman regression models. In Model 1, we included dummy variables that indicate whether the PAN or the PRI controls the state and municipal government, using PRD governments as the comparison group. Results indicate that, after migration, poverty, and other covariates are controlled for, PAN municipalities in states ruled by the PAN are significantly more likely to participate in the program. Once selected among the participating municipalities, however, PAN governments are not awarded any more resources than their PRI or PRD counterparts (Model 2).

To test whether the program favors any partisan strongholds, Models 3 and 4 include both PAN and PRI municipal vote shares. We find evidence suggesting that municipalities with stronger PAN support among voters are more likely to participate in the program. Also, PRI strongholds are less likely to participate than PRD strongholds, which is the baseline in this specification. In contrast, Model 4 indicates that PAN electoral support does not affect amounts any more than support for the PRD. PRI support is negatively correlated with amounts awarded, though. This result means that, all else equal, larger amounts are awarded in PAN or PRD strongholds, to the detriment of PRI core localities. To further test the partisan bias in favor of the PAN, Models 5 and 6 include the margin of difference between the PAN and PRI vote shares. We find that, controlling for poverty and migration intensity, municipalities where the PAN vote share is particularly high relative to the PRI are more likely to be selected in the program and to receive more resources.

Besides partisan biases and migrant self-selection, there are a number of covariates that may also affect program participation. First, it may also be the case that the authorities

in municipalities with more contested elections seek to participate and to attract more program resources to improve public service provision in politically competitive settings. Similarly, state governments may also try to target projects to highly contested locations. Moreover, since municipal elections are held every three years in Mexico, the election year might actually act as a spur to governments seeking to improve the provision of public goods. Finally, as hypothesized above, there is also the possibility of a non-partisan effect due to coordination problems. Since the program requires the collaboration of state and municipal governments, it may be the case that when these two levels of government belong to the same political party they are more likely to cooperate and to benefit from the program, than under vertically divided government.

Models 7 and 8 in TABLE 3 test these three hypotheses by including the margin of victory in municipal elections (a proxy of electoral competitiveness), as well as two indicator variables for shared partisanship and municipal election years. As it turns out, margin of victory and shared partisanship do not have an impact on the participation or amount equations. These negative findings can be interpreted as evidence that the program is not being used to target competitive localities or to punish juxtaposed governments but rather to reward core PAN localities. Moreover, the partisan biases previously found are not merely due to coordination problems between governments of different party labels. Finally, election years are negatively correlated with program participation but have no impact on the amounts received. This suggests that there are more projects funded in the years before the election but their average cost is not affected by the election cycle.

TABLE 4 reproduce the previous analysis but direct attention to the number of projects awarded, which we estimate with zero-inflated negative binomial models. The inflation equation shows that the probability of *non*-participation is inversely related to

migration and has nonlinear relationship with poverty (poorer municipalities are less likely to participate than medium poverty ones). One robust result across all specifications is that states governed by the PRI received significantly fewer projects than their PAN or PRD counterparts. According to Model 4, municipalities with greater PAN support received more projects than other party strongholds, a result that is also confirmed by Model 6. Finally, Model 8 indicates that shared partisanship and the margin of victory in municipal elections do not affect the number of projects awarded. As before, the results concerning migration and poverty remain robust in these specifications: whereas high migration municipalities receive more projects, poorer and less populated municipalities, where migrants are less likely to be well organized, do worse.

In sum, we find evidence of significant partisan effects in the implementation of the 3x1 Program. We find that PAN states and municipalities are more likely to participate in the program, but with no additional amounts or projects, than those governed by other political parties. Municipalities with greater PAN support among voters are also more likely to participate than others. Moreover, PRI strongholds receive smaller amounts than those of the PAN or the PRD, after migration and poverty are controlled for. Non-partisan political factors, such as juxtaposed governments, do not affect any measure of program participation. All in all, the program could be used either to reward PAN core supporters or to tilt the balance in favor of the PAN in those localities where political competition is tighter. The finding that margins of victory are not significant, whereas PAN voter support and PAN rule are relevant, is indicative that the program is being used as a rewarding tool for core supporters rather than targeting competitive municipalities.[13]

It is important to remark that the political bias in favor of PAN states and municipalities may either be demand-driven, that is, caused by migrant's and HTAs

choosing to propose projects in PAN localities—or supply-driven, that is, if government actors actively promote and use the program to reward their partisan supporters. We cannot completely rule out either mechanism here. Indeed, recent studies suggest that migrants' demographic characteristics make them likely to hold anti-PRI political preferences (Bravo 2007). If this is the case, the mechanism would not be one of PAN politicians biasing the selection of projects in favor of their strongholds, but rather one of migrants selecting PAN municipalities for their investments. Note that both mechanisms are plausible and likely to operate in tandem. Yet regardless of which mechanism prevails, our substantial argument concerning the regressive nature of the program holds: because high-migration PAN strongholds are relatively affluent (see Figure 3), the political bias reinforces the self-selection bias.[14] Overall, geography and politics reinforce each other in producing a regressive outcome.

*** Table 3 about here***

Plotting predicted probabilities of participation may help clarify the relative impacts of migration, poverty and partisan biases on the probability of participation as well as on the amount of funds received. In order to do this, we rely on the Heckman selection model 1 from TABLE 3 to estimate predicted probabilities of participation. Figure 4 shows that poverty has a curvilinear impact on the probability of program participation: rich and poor municipalities have a lower probability of participating than those in the middle (the simulated figure is for PAN municipalities located in PAN states). Figure 5 shows that migration positively affects the probability of program participation. It also shows that PAN states and PAN municipalities are more likely to participate than PRI or PRD governments.

On the other hand, Model 2 in TABLE 3 also reveals that a one-unit increase in the poverty index *decreases* the amount of money awarded by about US$12,000. According to model 4 in TABLE 4, one standard deviation increase in the level of poverty *reduces* the expected number of projects in 27 percent. With all other factors held constant, a municipality in a PRI state decreases the expected number of projects in half. Finally, a one standard deviation increase in PAN vote share increases the expected number of projects in 9 percent.

*** Figures 4 and 5 about here ***

6. Concluding remarks

Remittances have become a crucial source of revenue in many developing countries. Whereas some analysts (Durand et al. 1996) regard them as flows that can circumvent state intervention – which is treated as an advantage in poorly institutionalized and often corrupt political settings – the fact is that governments do intervene to influence the amount of remittances that arrive in sending countries, the channels by which they arrive, and their uses once they have arrived. These interventions are likely to increase as governments become increasingly aware of their developmental potential. Precisely because of this characterization of remittances as alien to political intervention, political economy research on remittances has been rare (for exceptions see Bravo 2007; Pfutze 2007). In this paper, we explore the 3x1 Program for Migrants, a well-publicized public policy program directed at channeling collective remittances to "productive uses" in migrants' communities of origin.

We raised two main points. First, because the program design gives the initiative to migrants, its capacity to target poor municipalities crucially depends on the relationship between poverty and migration. If municipalities with the strongest and most long-standing migration traditions are not among the poorest ones, as is the case in Mexico, the program will be unlikely to reduce poverty due to self-selection bias. Second, the 3x1 Program for Migrants was launched at the federal level under a PAN administration led by Vicente Fox. The involvement of three different levels of government in addition to migrant organizations in the allocation of projects raises concerns about partisan or political biases in the actual implementation of the program.

Indeed, we found that, whereas medium poverty municipalities were more likely to participate in the program than low poverty ones, poverty levels were negatively related to the amount of money received and to the number of projects awarded. We also found significant partisan biases in the implementation of the 3x1 Program. PAN states and municipalities were more likely to participate in the program than those ruled by other political parties. Municipalities with greater PAN electoral support were also more likely to participate and to receive more projects. Moreover, the partisan bias reinforces the self-selection bias of the program because high-migration and relatively well-off municipalities tend to favor the PAN. Taken together, these results cast doubt on the ability of this kind of policy to target the communities where Mexico's public resources are most needed.

Two simple amendments to the program design might help increase the chances that the poorest communities – where migrants are fewer in number and not very well organized – are not excluded from its benefits. First, only communities below a particular poverty threshold could be eligible to participate. Second, projects from medium- to low-poverty locations could receive a smaller subsidy from the state and federal governments than those

from high-poverty areas, where migrant organizations may not be able to afford an equal share of the project's costs. Yet changing the rules of the program is bound to raise all manner of political resistance from relatively well-off migrants whose political power has been on the rise and from local politicians eager to court them.

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FIGURES

FIGURE 1. Migration and poverty levels in Mexican municipalities, 2002-2007 (box plot).

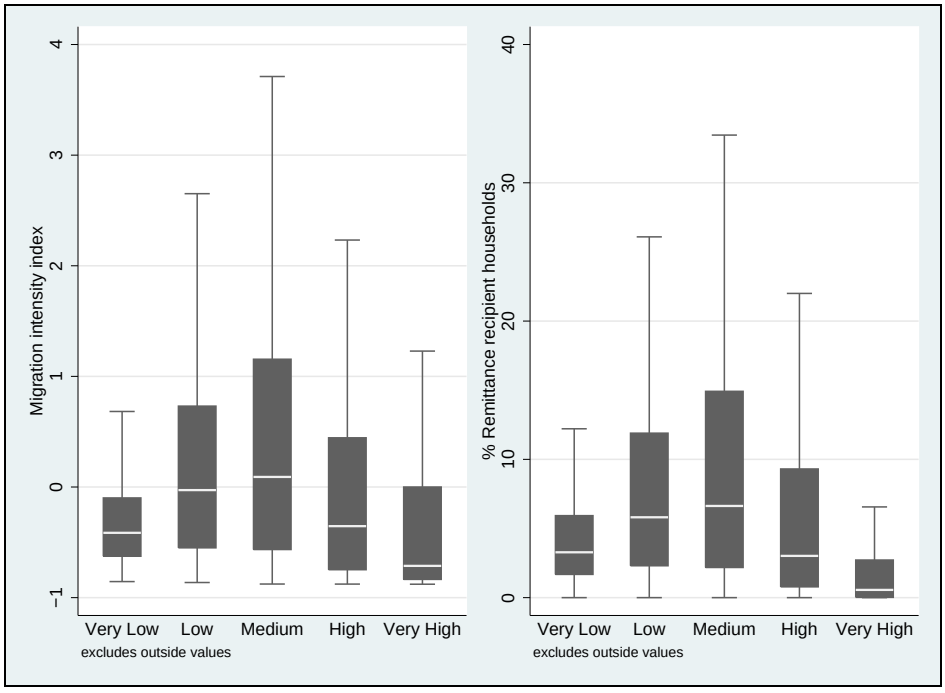

FIGURE 2. Number of projects awarded and total investment of the 3x1 Program in Mexican municipalities by different poverty levels, 2002-2007 (box plot).

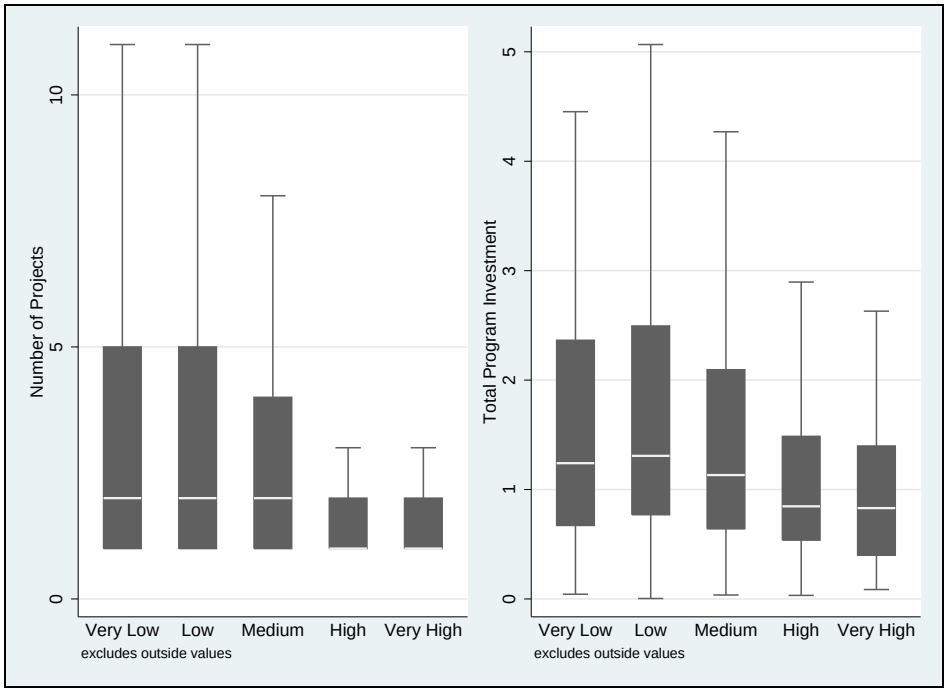

FIGURE 3. Municipal vote share for PAN, PRI and PRD by level of poverty and migration intensity, 2002-2007.

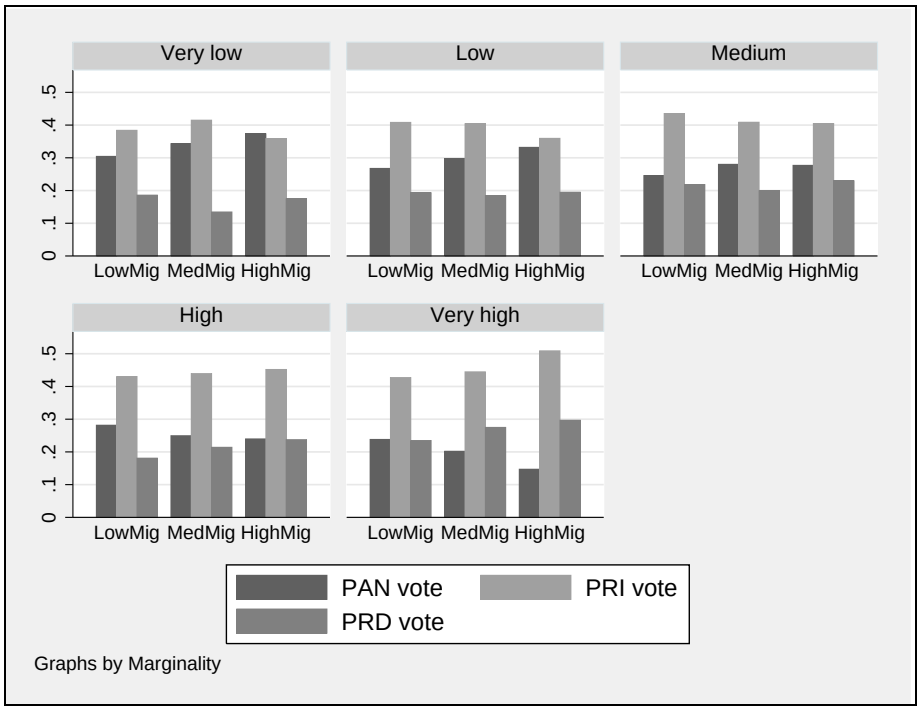

FIGURE 4. Predicted probability of participation in the 3x1 Program in Mexican municipalities (PAN municipalities in PAN states) by degree of poverty. Estimates are based on Model 1 in Table 3, with all other covariates held at their mean values.

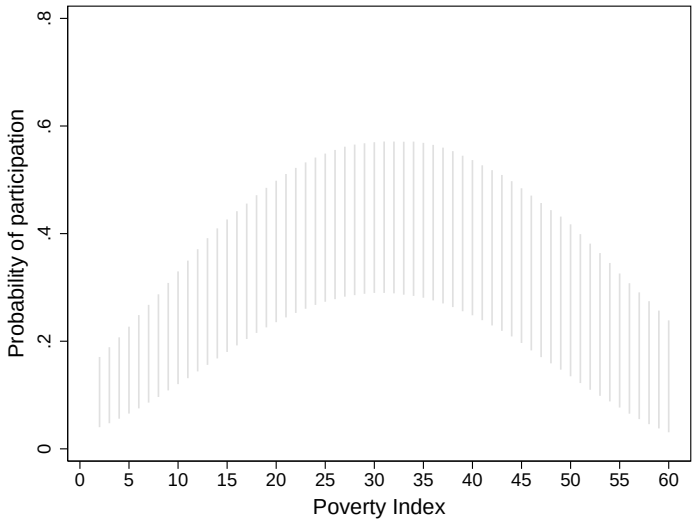

FIGURE 5. Predicted probability of participation in the 3x1 Program in Mexican municipalities by PAN - PRI vote share difference. Estimates based on Model 5 in Table 3, with all other covariates held at their mean values.

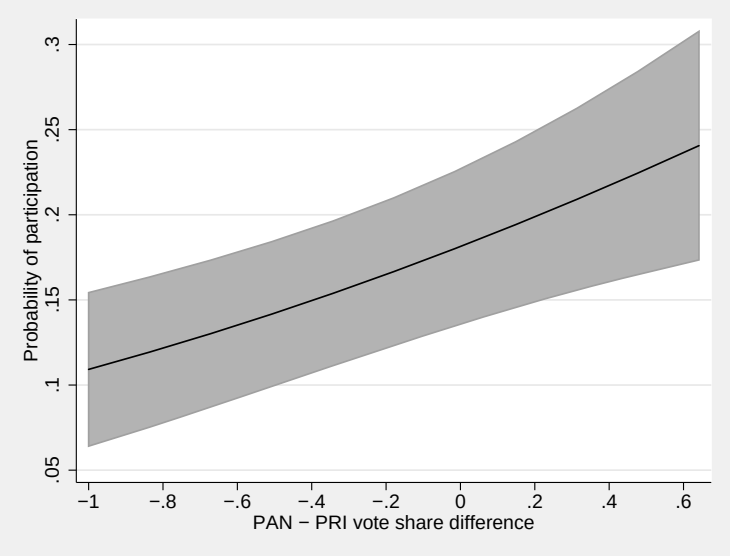

TABLE 1

The 3x1 Program in Mexican Municipalities, 2002-2007

Descriptive Statistics

	All Municipalities		Participating Municipalities	
	Mean	**Std. Dev**	**Mean**	**Std. Dev**
Municipal Participation	**0.114**	0.318		
Amount (in million constant pesos)	**0.267**	1.071	**1.755**	2.219
Number of Projects	**0.512**	2.292	**3.362**	4.992
Poverty Index	**0.012**	0.991	**-0.333**	0.754
Very Low Poverty	**0.102**	0.302	**0.089**	0.285
Low Poverty	**0.173**	0.378	**0.281**	0.450
Medium Poverty	**0.203**	0.402	**0.296**	0.457
High Poverty	**0.368**	0.482	**0.281**	0.449
Very High Poverty	**0.154**	0.361	**0.054**	0.225
Migration Intensity Index	**0.038**	0.986	**0.895**	1.083
No Migration	**0.038**	0.192	**0.003**	0.052
Very Low Migration	**0.354**	0.478	**0.080**	0.272
Low Migration	**0.244**	0.429	**0.157**	0.364
Medium Migration	**0.162**	0.368	**0.225**	0.418
High Migration	**0.136**	0.343	**0.339**	0.473
Very High Migration	**0.067**	0.250	**0.196**	0.397
Water Coverage	**0.728**	0.241	**0.789**	0.214
Sewerage Coverage	**0.554**	0.302	**0.681**	0.255
Electricity Coverage	**0.874**	0.183	**0.886**	0.203
Log (Population)	**-4.504**	1.493	**-4.063**	1.215
PAN State	**0.206**	0.404	**0.412**	0.492
PRI State	**0.674**	0.469	**0.276**	0.447
PRD State	**0.190**	0.392	**0.337**	0.473
PAN Municipality	**0.218**	0.413	**0.311**	0.463
PRI Municipality	**0.437**	0.496	**0.408**	0.492
PRD Municipality	**0.160**	0.367	**0.205**	0.404
PAN vote share	**0.226**	0.187	**0.277**	0.175
PRI vote share	**0.337**	0.194	**0.359**	0.149
PRD vote share	**0.170**	0.177	**0.208**	0.175
PAN-PRI Vote Margin	**-0.111**	0.206	**-0.082**	0.217
Margin of Victory	**0.101**	0.119	**0.110**	0.102
Municipal Election year	**0.363**	0.480	**0.325**	0.468
Shared Partisanship	**0.425**	0.494	**0.478**	0.500
Number of observations	**14,557**		**2,222**	

2435 municipalities / 31 states/ 6 years

Note: t-tests for differences in means are statistically significant at the 5 percent level in all cases.

TABLE 2
Participation in the 3x1 Program for Migrants in Mexican Municipalities, 2002 - 2007

	Program Participacion	Amount	Program Participation	Amount	Program Participation	Number of Projects
	(1)	(2)	(3)	(4)	(5)	(6)
	Logit	*FE OLS*	*Heckman selection model*		*Zero Inflated Negative*	
Migration						
Very Low	**1.006**	**-0.029**				
	[0.424]**	[0.008]***				
Low	**1.781**	**-0.005**				
	[0.430]***	[0.014]				
Medium	**2.202**	**0.02**				
	[0.431]***	[0.019]				
High	**2.798**	**0.289**				
	[0.432]***	[0.033]***				
Very High	**3.03**	**0.212**				
	[0.437]***	[0.056]***				
Poverty						
Low	**0.565**	**0.074**				
	[0.123]***	[0.040]*				
Medium	**0.538**	**-0.051**				
	[0.138]***	[0.043]				
High	**1.099**	**-0.037**				
	[0.158]***	[0.040]				
Very High	**1.267**	**-0.015**				
	[0.210]***	[0.045]				
Migration intensity index			**0.264**		**-2.372**	**0.392**
			[0.018]***		[0.128]***	[0.044]***
Poverty			**0.787**	**-0.142**	**-1.007**	**-0.397**
			[0.095]***	[0.082]*	[0.213]***	[0.067]***
Squared Poverty			**-0.125**		**0.18**	
			[0.017]***		[0.045]***	
Water	**0.606**	**0.072**	**0.252**	**-0.26**		**0.103**
	[0.157]***	[0.030]**	[0.086]***	[0.185]		[0.164]
Sewage	**0.292**	**-0.051**	**0.206**	**-0.099**		**0.522**
	[0.156]*	[0.034]	[0.085]**	[0.195]		[0.147]***
Electricity	**0.155**	**-0.001**	**0.015**	**-0.031**		**-0.617**
	[0.159]	[0.045]	[0.087]	[0.180]		[0.150]***
Log (Population)	**0.239**	**0.064**	**0.15**	**0.361**		**0.471**
	[0.032]***	[0.007]***	[0.017]***	[0.048]***		[0.027]***
Constant		**0.527**	**-0.577**	**3.072**	**1.194**	**2.846**
		[0.066]***	[0.237]**	[0.413]***	[0.209]***	[0.317]***
Observations	14,142	14,534	14,534	14,534	14,534	14,534

Program participation is a binary outcome, amount awarded is measured in million pesos in constant prices.
Robust Standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.
All models include state and year effects, except models 5 and 6, which only include year effects.

TABLE 3
Political determinants of Participation in the 3x1 Program for Migrants in Mexican Municipalities, 2002 - 2007

	Heckman selection models							
	Program Participation	Amount	Program Participation	Amount	Program Participation	Amount	Program Participation	Amount
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Migration Index	**0.263**		**0.281**		**0.281**		**0.28**	
	[0.018]***		[0.021]***		[0.021]***		[0.021]***	
Poverty	**0.806**	**-0.141**	**0.839**	**-0.033**	**0.839**	**-0.041**	**0.81**	**-0.071**
	[0.095]***	[0.082]*	[0.105]***	[0.092]	[0.105]***	[0.092]	[0.105]***	[0.091]
Squared Poverty	**-0.128**		**-0.143**		**-0.143**		**-0.139**	
	[0.017]***		[0.019]***		[0.019]***		[0.020]***	
Politics								
PAN State	**0.215**	**0.073**	**0.169**	**0.13**	**0.169**	**0.137**	**0.191**	**0.182**
	[0.099]**	[0.201]	[0.110]	[0.211]	[0.110]	[0.210]	[0.110]*	[0.207]
PRI State	**0.159**	**0.08**	**0.113**	**0.146**	**0.113**	**0.15**	**0.131**	**0.145**
	[0.107]	[0.262]	[0.110]	[0.262]	[0.110]	[0.261]	[0.112]	[0.263]
PAN Municipality	**0.113**	**-0.092**						
	[0.049]**	[0.145]						
PRI Municipality	**-0.064**	**-0.067**						
	[0.043]	[0.122]						
PAN Municipal Vote Share			**0.337**	**0.298**				
			[0.126]***	[0.282]				
PRI Municipal Vote Share			**-0.285**	**-1.302**				
			[0.170]*	[0.582]**				
PAN-PRI Municipal Vote Share					**0.316**	**0.691**		
					[0.093]***	[0.245]***		
Municipal Competitiveness							**0.102**	**0.201**
							[0.153]	[0.457]
Shared Partisanship							**0.034**	**0.059**
							[0.036]	[0.089]
Local Election							**-0.152**	**0.042**
							[0.040]***	[0.100]
Water	**0.245**	**-0.255**	**0.19**	**-0.201**	**0.19**	**-0.195**	**0.199**	**-0.177**
	[0.087]***	[0.185]	[0.095]**	[0.205]	[0.095]**	[0.205]	[0.096]**	[0.206]
Sewage	**0.207**	**-0.103**	**0.164**	**-0.163**	**0.163**	**-0.163**	**0.167**	**-0.159**
	[0.085]**	[0.194]	[0.097]*	[0.226]	[0.097]*	[0.227]	[0.097]*	[0.228]
Electricity	**0.01**	**-0.024**	**0.028**	**0.087**	**0.027**	**0.102**	**0.034**	**0.135**
	[0.087]	[0.182]	[0.094]	[0.174]	[0.094]	[0.173]	[0.094]	[0.174]
Log (Population)	**0.147**	**0.363**	**0.141**	**0.342**	**0.14**	**0.351**	**0.145**	**0.369**
	[0.017]***	[0.049]***	[0.020]***	[0.051]***	[0.020]***	[0.051]***	[0.020]***	[0.052]***
Constant	**-1.037**	**3.074**	**-0.828**	**3.016**	**-0.808**	**2.65**	**-0.812**	**2.567**
	[0.258]***	[0.477]***	[0.290]***	[0.578]***	[0.274]***	[0.495]***	[0.274]***	[0.501]***
Observations	14,519	14,519	10,897	10,897	10,897	10,897	10,897	10,897

Units are municipality/year observations. Program participation is a binary outcome, amount awarded is measured in million pesos in constant prices
Robust Standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.
All models include state and year effects.

TABLE 4

Political determinants of Participation in the 3x1 Program for Migrants in Mexican Municipalities, 2002 - 2007

Zero Inflated Negative Binomial Models

	Inflation eq.	Number of projects	Inflation eq.	Number of projects	Inflation eq.	Number of projects	Inflation eq.	Number of projects
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Migration Index	**-2.389**	**0.296**	**-2.442**	**0.283**	**-2.446**	**0.285**	**-2.463**	**0.291**
	[0.136]***	[0.040]***	[0.133]***	[0.043]***	[0.134]***	[0.043]***	[0.136]***	[0.043]***
Poverty	**-1.044**	**-0.293**	**-1.108**	**-0.335**	**-1.119**	**-0.335**	**-1.158**	**-0.369**
	[0.232]***	[0.064]***	[0.251]***	[0.070]***	[0.250]***	[0.070]***	[0.252]***	[0.070]***
Squared Poverty	**0.212**		**0.243**		**0.245**		**0.25**	
	[0.048]***		[0.053]***		[0.053]***		[0.053]***	
Politics								
PAN State		**-0.028**		**-0.033**		**-0.049**		**0.02**
		[0.079]		[0.083]		[0.080]		[0.079]
PRI State		**-1.462**		**-1.342**		**-1.359**		**-1.377**
		[0.085]***		[0.094]***		[0.090]***		[0.093]***
PAN Municipality		**0.135**						
		[0.083]						
PRI Municipality		**0.039**						
		[0.071]						
PAN Municipal Vote Share				**0.51**				
				[0.195]***				
PRI Municipal Vote Share				**-0.695**				
				[0.269]***				
PAN-PRI Municipal Vote Share						**0.583**		
						[0.145]***		
Municipal Competitiveness								**0.073**
								[0.287]
Shared Partisanship								**0.089**
								[0.064]
Local Election								**-0.151**
								[0.072]**
Water		**0.148**		**0.086**		**0.085**		**0.109**
		[0.146]		[0.159]		[0.159]		[0.157]
Sewage		**0.119**		**0.017**		**0.02**		**0.022**
		[0.141]		[0.157]		[0.156]		[0.155]
Electricity		**-0.237**		**-0.187**		**-0.184**		**-0.182**
		[0.132]*		[0.137]		[0.137]		[0.141]
Log (Population)		**0.319**		**0.247**		**0.251**		**0.265**
		[0.027]***		[0.032]***		[0.030]***		[0.030]***
Constant	**0.825**	**1.902**	**0.88**	**2.554**	**0.887**	**2.51**	**0.915**	**2.486**
	[0.240]* **	[0.316]***	[0.254]***	[0.326]***	[0.252]***	[0.324]***	[0.253]***	[0.327]***
Observations	14,519	14,519	10,897	10,897	10,897	10,897	10,897	10,897

Units are municipality/year observations. All models include year effects.

Robust Standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

ENDNOTES

[1] Authors listed alphabetically. Earlier versions of this paper were discussed at CIDE, the 3rd Alumni Conference of the Juan March Institute, the Annual Meeting of the American Political Science Association, Boston, 28-31 August 2008, and at the University of Texas, Austin. We thank all seminar participants for their useful comments. We acknowledge financial support from CIDE and the research assistance of Brisna Beltrán. We also thank the Mexican Ministry for Social Development (SEDESOL) for providing the data on the "3x1 Program for Migrants."

[2] Interestingly, between 30 and 45 percent of remittance flows come from South–South migration. China, Malaysia and the Russian federation are among the top 20 sources of remittances (World Bank 2006).

[3] It should be noted that there is an important normative debate regarding the legitimacy of state intervention in the handling of remittances: the way in which these private capital flows are ultimately employed is indeed a prerogative of the recipient families.

[4] Between 2000 and 2003 the Mexican population residing in the US grew by 14 percent. It represents 30 percent of total US immigration today.

[5] www.sedesol.gob.mx

[6] Burguess (2005) reports that in Zacatecas migrants pressed to change the program rules so that only migrants belonging to a registered HTA – as opposed to any interested group or individual – could finance projects under the program.

[7] In a similar vein, Bravo (2007) finds that out-migration seems to depress political engagement in Mexico, and that individuals who receive remittances or expect to migrate are significantly less likely to turn out to vote than those who do not. Goodman and Hiskey (2008) report a similar result. Spencer and Cooper (2006) warn that HTAs may create barriers to broader political participation.

[8] Note that we consider migration intensity as a proxy of the number of HTAs (about which we do not have direct information). However, HTAs' capacity for collective action and their organizational skills are an important unobservable variable.

[9] We included state instead of municipal effects for several reasons. First, our migration intensity measure is time-invariant in our sample period, which prevented us from using municipal effects. Second, and more important, states also have a strong influence on the program because they have to commit resources *ex ante* via agreements with SEDESOL. Moreover, since migration has been historically concentrated in certain regions, state effects control for the areas that host the majority of the projects.

[10] The number of projects awarded had a clear inflation of zeros because only a few municipalities participate in the program. A Voung test to decide between a standard negative binomial and a zero-inflated negative binomial favored the latter.

[11] We used the continuous indexes of poverty and migration in the models that follow because some Heckman models did not converge when we controlled for migration and poverty with dummy variables. Also, as Model 1 indicated, migration has a positive and monotonic effect on program participation, whereas poverty has a nonlinear relationship. Since we do not find a nonlinear relationship between amounts and poverty levels, we exclude de quadratic poverty term from the second stage equation.

[12] In ZINB models the first stage or inflation equation estimates a logit model of non-participation, and, as expected, the migration and poverty coefficient switches sign. This model includes time effects only because it did not converge when state effects were added.

[13] It could be argued that our results may be due to the program itself having some effect on both poverty levels and electoral outcomes. Our poverty measures are observed in 2000 and 2005, only. When we estimated our models holding constant the poverty levels of 2000 and used lagged election returns, our main results did not vary.

[14] Recent literature has explored the use of clientelistic as opposed to programmatic spending in Mexican municipalities (Díaz Cayeros et al. 2007). According to this research, PRI politicians used a mixture of private and public goods to target, respectively, strongholds and contested municipalities.