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The Political Economy of Social Spending by Local Government: A Study of the 3x1 Program in Mexico

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Abstract

Social spending by central governments in Latin America has, in recent decades, become increasingly insulated from political manipulation. Focusing on the 3x1 Program in Mexico in 2002-2007, we show that social spending by local government is, in contrast, highly politicized. The 3x1 Program funds municipal public works, with each level of government – municipal, state, and central – matching collective remittances. Our analysis shows that 3x1 municipal spending is shaped by political criteria. First, municipalities time disbursements according to the electoral cycle. Second, when matching collective remittances, municipalities protect personnel salaries, instead adjusting budget items that are less visible to the public such as debt. Third, municipalities spend more on 3x1 projects when their partisanship matches that of the state government. Beyond the 3x1 Program, our findings highlight the considerable influence that increasing political and economic decentralization can have on local government incentives and spending choices, in Mexico and beyond.

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For decades, social spending by the Mexican national government – in theory aimed at providing a safety net for poor citizens – was manipulated according to political criteria (Dresser 1991; Molinar and Weldon 1994; Rocha Menocal 2001, 2005; Díaz Cayeros et al 2007). In recent times, however, the scope for such manipulations at the national level has decreased. Conditional cash transfer programs created in the 1990s, for example, target recipients on the basis of objective, needs-based criteria, leaving little scope for political manipulation (Levy 2006; De la O 2013). At the same time, the twin processes of political decentralization (Falleti 2005) and increased electoral competition since the 1980s have magnified both the motivation and the possibilities for local governments to politicize social spending under their control (Cornelius 1999). Ironically, some of the same forces that have rendered central governments leaner and more accountable have also increased the budgets and the independence of municipal governments, albeit without concomitant increases in local accountability.

This article studies local (i.e., municipal) government spending patterns in Mexico in the context of the 3x1 Program. We find clear evidence that local political and electoral pressures importantly shape such spending. Specifically, our analysis shows that the composition, timing, and magnitude of municipal government spending associated with the 3x1 Program bear the fingerprints of local-level electoral imperatives.

¹ For other cases in Latin America see Schady 2000 and Finan 2004 among others.

² This is not to say that there is absolutely no scope for manipulation of social spending at the national level. In the case of Mexico, however, the largest social spending program was designed to be manipulation-proof (Levy 2006; but see Rocha-Menocal 2001), and participation of higher levels of government in manipulation of the 3x1 Program, which we study here, appears to follow the lead of local government.

We focus on the 3x1 Program for the following reasons. First, municipal government plays a key role in its implementation.³ Second, and relatedly, it is the largest social spending program in Mexico that directly involves the local level of government. Third, participation in the program varies over time and across municipalities, and we have information about municipal budgets both before and after 3x1 Program projects are undertaken, thus we are able to observe how municipalities adjust their spending decisions. The 3x1 Program, therefore, provides a unique window into the logic of local government spending.⁴

The official goals of the 3x1 Program are multifaceted, and they include the reduction of poverty, the promotion of development by amplifying the impact of collective remittances, and the strengthening of linkages between Mexican migrants and their communities of origin. ⁵ Broadly speaking, the 3x1 Program involves matching, three to one, monetary remittances sent by migrant hometown associations (HTAs) – voluntary civic associations whose membership consists of Mexican-born migrants, usually from the same community or municipality in Mexico, that fundraise in the United States to support community projects in their places of origin. The collective remittances finance specific local public goods selected by the HTA,

³ In contrast, the targeting and outlays of Mexico's largest social spending program, Oportunidades, are administered by the central government, with no discretionary role for municipalities. The Seguro Popular, another large social spending program focused on health, is administered by the national and state levels of government. These programs, therefore, are not suitable for understanding political incentives at the municipal level. (The regulations governing the Seguro Popular permit state governments to delegate part of the operation of health programs to municipalities through "coordination agreements," but this is entirely at the discretion of the state governments).

⁴ Additionally, of course, the 3x1 Program is of interest in its own right, and equivalent programs exist in other countries, as discussed further below.

⁵ By "collective remittances" we refer to the contribution of migrant associations abroad to the Program. Collective remittances are distinct from family (or household) remittances in that the latter refer to private transfers between households, while the former denote pooled resources from a group of migrants sent to their hometowns.

municipalities, and citizen beneficiaries in recipient communities, which are typically small-scale public goods projects including paving roads, extending the electricity grid, or expanding a water main. In terms of the absolute magnitudes involved, the 3x1 Program is much smaller than national-level social spending program Oportunidades, or the Seguro Popular. From the viewpoint of many municipal governments, however, 3x1 projects are of great consequence, and the monies associated with these often constitute a substantial proportion of municipal spending. For example, between 2002 and 2007, municipal expenditures on 3x1 were equivalent to at least 20% of total public works spending in about 30% of participating municipalities. By the end of the period we study, close to one third of Mexico's municipalities had participated in the Program at least once.

Our statistical analysis explores the effect of 3x1 project monies on municipal spending patterns. We study the effect of such monies on specific budget categories. We also investigate whether such effects vary with the electoral cycle, and with co-partisanship in the municipal and the state governments. Our analyses rely on over-time variation within municipalities, based on panel regressions with municipality fixed effects. Our data contain yearly information at the municipality level for the 3x1 Program from its inception in 2002, municipal spending accounts from 1995 and electoral data, covering all Mexican municipalities from 1995 until 2007. We also conducted original fieldwork and interviews with local government officials, 3x1 Program officers, and other individuals involved with the Program.

⁶ We use the terms "public works" and "infrastructure" indistinctly throughout the paper.

⁷ The focus of this paper is on the quantitative results, but we cite select findings from our fieldwork and interviews.

Our results show that municipal spending choices are significantly shaped by political/electoral criteria. We find that, when allocating infrastructure spending to match 3x1 Program projects, municipal governments protect politically-sensitive budget items. Specifically, personnel salaries remain unchanged, but debt service goes down. Such behavior is consistent with the imperatives of electoral competition: debt is presumably less visible to the public than government employment and salaries. Often, the mismanagement of government finances becomes known to the public only after a new administration (generally from a different political party) takes office and exposes it.⁸ Government employees, in contrast, are often political allies or clients.⁹

Consistent with this, our results also show that municipalities carefully time their infrastructure spending associated with 3x1 projects to match the electoral cycle. We find that such spending is substantially concentrated towards the end of the electoral cycle. Importantly, we are able to rule out the possibility that the cyclicality might be mostly due to learning by the municipal government over the course of its term in office: the cycles are present even when the party in office does not change.

Third, we find that municipalities ruled by the same party that governs the state appear to be advantaged in their ability to match 3x1 collective remittances. When the partisan identity

⁸ A recent scandal in the Mexican state of Tabasco illustrates this principle. PRI-affiliated governor Andrés Granier (2007-2012) is accused of having grossly mismanaged governmental finances and hid these abuses from the public. Granier's maladministration has recently been revealed by the new governor, PRD-affiliated Arturo Núñez. Governmental debt for the state of Tabasco allegedly has reached close to \$2 billion USD (23,000 million pesos) (Xicoténcatl 2013). Prior to becoming governor, Mr. Granier had served as mayor in the municipality of Centro, Tabasco.

⁹ On local level patronage in Mexico see Villareal (2002) and Kyle and Yaworsky (2008) among others.

coincides, municipalities match 3x1 remittances with infrastructure spending approximately one-to-one. In contrast, when the partisan identity at the two levels of government differs, municipalities only increase their infrastructure spending by about two-thirds of a peso for each peso of 3x1 projects. This finding documents the ability of municipalities to benefit from co-partisanship at the state level.¹⁰

Our analysis contributes to the debate on the political manipulation of social spending. Specifically, it draws attention to the possibility that, even where national level politics has become more transparent and subject to citizen control, accountability at subnational – and in particular, local – levels of government still varies greatly (Gibson 2013, Snyder 2001), with consequences for patterns of spending. More generally, our study contributes to the literature on distributive politics. The study of distributive politics (e.g. Dixit and Londregan 1996, 1998; Grossman and Helpman 1996) has largely viewed decisions about how to allocate resources as stemming from the political motives of politicians at the national (or state) levels of government, implicitly or explicitly treating local governments as passive recipients of funds who automatically execute the decisions of higher levels of government. Our analysis suggests that this national-centric approach eclipses the powerful political incentives that local incumbents face in the wake of decentralization reforms that shift the locus of decision-making to lower tiers of government. ¹¹

We believe the lessons that emerge from our analysis should be of relevance beyond the Mexican case. Two global trends have gathered momentum since the 1980s. First, many

 10 See also Aparicio and Meseguer (2012) and Author (2011).

¹¹ An interesting contrast to the phenomenon we describe is the assertion of national government control over local governments in the 1930s in the United States, aimed at reducing corruption in social spending (see Wallis et al 2006).

countries have implemented reforms to decentralize fiscal, administrative, and political responsibility to lower levels of government (Oxhorn 2004; Bardhan and Mookherjee 2006; O'Neill 2005). This trend stems from a variety of factors, including economic crises, the rigors of fiscal adjustment, and international pressures for democratization. In Latin America alone, sub-national levels of government became responsible for almost 30 percent of revenue and expenditures by 2000 (Falleti 2005). The political and fiscal devolution of power to sub-national levels of government has had a decisive influence on the role of local government in the implementation of nation-wide social policies: local governments are now key players in the administration and implementation of many redistributive spending programs. ¹³

Second, the political manipulation of social spending programs by national governments has come, in recent times, under considerable political and budgetary pressures (Hall 2006; Levy 2006; Díaz-Cayeros et al. 2007; Tucker 2010; De la O 2013). As a result, many governments have rationalized the allocation of social spending, replacing political criteria with transparent, need-based formulas. At the same time, needs-based targeting has allowed governments to trim social-spending budgets under the banner of efficiency and fairness, often under pressure from international financial institutions. Conditional cash transfer programs, for example, whereby governments regularly provide cash to carefully- and transparently-targeted poor citizens so long

¹² This is true for both federal and non-federal systems.

¹³ See Alderman (2002) for the case of Albania, Galasso and Ravallion (2005) for Bangladesh, and Hall (2006) for Brazil.

as they participate in various health and education-related activities, have been adopted in a large number of countries. ¹⁴

The net result of these two trends of decentralization – electoral and budgetary – and rationalization is that, just as the space for partisan manipulation of redistributive spending has diminished at higher levels of government, it has increased at the local level: as the stakes of local office have increased, so have the incentives of local-level politicians to use the resources at their disposal for electoral gain. At the same time, municipalities generally face different sets of institutional constraints than state or national governments. The literature has yet to directly engage these issues and their implications for distributive spending, both on theoretical and empirical levels. ¹⁵

Less directly, our findings also contribute to the literature on political budget cycles. First, we document the presence of such cycles at the local level of government, something that only a handful of other studies have done (Mouriuen 1989; Veiga and Veiga 2007). Second, in contrast with recent work, which has questioned whether budget cycles could be driven by electoral goals (e.g. Brender and Drazen 2008), our evidence suggests that at least some kinds of cyclical spending are in fact electorally motivated.

Finally, our findings add to the growing scholarly literature on the 3x1 Program. Our findings are complementary to Aparicio and Meseguer (2012) and Meseguer and Aparicio

¹⁴ For a discussion of conditional cash transfer programs see Rawlings and Rubio 2005, Handa and Davis 2006, and Farrington and Slater 2006; for general discussions of targeted anti-poverty programs see Ravallion 2003; Pritchett 2005.

¹⁵ Decentralization in theory can have simultaneous and opposing effects on governance: it could increase electoral accountability, but it also raises the stakes of office. Our results suggest that, at least in the case we study, the incentives created by the latter effect overwhelms those created by the former.

(2012), who study the determinants of participation in the 3x1 Program in 2002-2007. They find that municipal strongholds of the PAN – the party that controlled the national government – are substantially more likely to participate in the program. Our dependent variable differs from theirs (they focus on program participation and we focus on municipal spending patterns), but our results are broadly consistent: our finding that shared partisanship at the municipal and state levels influences municipal spending on 3x1 projects jives well with their claim that partisan motives drive municipal participation in the program. ¹⁶ The Mexican 3x1 Program has inspired similar programs in several countries in which remittance inflows from migrant diasporas comprise a significant source of foreign exchange including Colombia, Peru, Ecuador and the Dominican Republic (Bendixen 2004; Garcia Zamora 2007). In fact, more than 21% of Latin American migrants are believed to send collective remittances to support local development projects in their countries of origin through migrant philanthropic associations (Bendixen 2004). More generally, given the sheer volume and importance of remittances to Latin American and Caribbean countries (\$56.9 billion), developing countries (\$307 billion) and countries worldwide (\$414 billion), there is surprisingly little research on social spending programs like the 3x1 Program (World Bank 2011).

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¹⁶ Further afield, Adida and Girod (2011), Author (2011), and Meseguer and Aparicio (2012) study the effects of the 3x1 Program on the provision of public goods. Burgess (2012) studies the determinants of migrant participation in public-private partnerships with local governments, while Author (2011) investigates the political consequences of these transnational partnerships for local democratic governance.

Background

The *3x1 Program for Migrants*, generally known as the 3x1 Program, is a mechanism through which each level of the Mexican government – local, state, and national – matches collective remittance funds sent by HTAs in the U.S. to their hometowns in Mexico. Between 2002 and 2007, the program funded a total of 7,855 projects in three main areas: social aid, public infrastructure, and productive projects. The vast majority of the projects funded small public works investments.

The 3x1 Program's core objective, as defined by the national level of government, is the development of social infrastructure and productive projects in communities with high poverty and migration rates (SEDESOL 2008a: 2). Each project demands the creation of a "community committee" —which comprises representatives from the three levels of government plus the sponsor migrant association.¹⁷ Infrastructure projects are generally financed in equal parts by the national, state, and municipal governments and the migrant association.¹⁸ Officially, the program has a variety of objectives, including poverty alleviation, and the promotion of relationships between migrants and their communities of origin.

The 3x1 Program has its antecedents in the state of Zacatecas where, under the auspices of the state governor Genaro Borrego, the Program for Absent Zacatecans was launched in 1986.

¹⁷ Project selection and approval is coordinated in meetings of these community groups called the *Comité de Validación y Atención a Migrantes* (COVAM).

The 3x1 program rules (SEDESOL 2008a) specify that the state and municipal levels of governments share 50% of the cost but do not specify the breakdown. Most authors, however, specify that each level of government contributes an equal part (see, for example, Aparicio and Meseguer 2012, García Zamora 2005, and Khoudour-Casteras 2007). Also, the rules specify an upper limit to the national government's contribution of 800 thousand pesos and specify that, if required, the national government can finance up to 50% of a project's total cost (SEDESOL 2008a).

This program required the state government to match every peso the Federation of Zacatecan Clubs (a union of Zacatecan hometown associations) invested in local projects. Between 1986 and 1992 this program only produced 28 projects; however, it became the model for similar programs in other states such as Guerrero, Guanajuato, and Jalisco and it encouraged hometown associations from these states to embark on similar projects (Burgess 2005; García Zamora 2007). Table 1 describes the subsequent evolution of the 3x1 Program as it expanded nationally.

[Table 1]

Municipal Government in Mexico

Municipalities are the lowest level of government in Mexico, below the national and state levels. Municipal attributions and responsibilities are similar throughout the country and consist mainly of the provision of public goods such as sewage, drinking water, roads, recreational parks, zoning, and garbage collection ¹⁹. The taxing authority of municipalities is limited to a property tax and the collection of fees, but revenues are supplemented by national and state transfers, which on average account for 60% of municipalities' available resources. ²⁰

In recent years local governments have benefited from a broad process of fiscal decentralization initiated by the Mexican government at the beginning of the 1980s. This process started with the devolution of legal authority to municipalities to collect property taxes in the early 1980s, and has continued with a substantial increase in the amount of resources transferred

¹⁹ The Constitution guarantees a minimum degree of autonomy to all municipalities through the explicit assignment of authority over these issues.

²⁰ Authors' calculations based on information from National Bureau of Statistics and Geography (INEGI).

from the national government to states and municipalities after 1996. ²¹ Enhanced fiscal authority together with higher transfers has led to a dramatic increase in the amount of resources administered by municipal governments in Mexico: between 1989 and 2004 their revenues increased at an average rate of 8.93% annually and they are now responsible for around 7.5% of total public expenditures in the country. ²² Parallel to the process of fiscal expansion, and embedded within the larger process of democratization at the national level, Mexican municipalities have also witnessed in the last twenty years an upsurge of electoral competition and political participation. The average margin of victory in municipal elections, for example, declined from 59% in 1988 to 10.9% in 2004. ²³ These figures highlight the increasing importance of local government and local electoral politics in the Mexican context.

The Political Economy of 3x1 Program Spending: Empirical Analysis

Hypotheses

What do municipal spending patterns say about the goals of municipal governments? Do such patterns reveal a political-electoral logic at work? As a window into these questions, we study how municipalities adjust their spending when they participate in the 3x1 Program.

Social spending tends to be popular, and projects in the 3x1 Program are no exception: they are often highly visible because they involve the community and they finance public goods, and therefore they provide opportunities for significant credit-claiming by mayors and their

²¹ For a thorough description of this process see Rodríguez (1997)

²² These numbers were calculated with information from INEGI (http://dgcnesyp.inegi.gob.mx), as of 2010.

²³ Authors' calculations.

parties (Rocha Menocal 2007).²⁴ Nevertheless, as with any social program, there exist opportunities to manipulate the spending to further enhance the political gain. We look for evidence of such manipulation.

We look for policitization along three dimensions. First, we ask how municipalities adjust different items in their budgets when they contribute their matching portion to 3x1 projects: are politically-sensitive budget categories, and in particular personnel salaries, protected? Second, we explore the timing of 3x1-related expenditures: do expenditures vary in predictable ways with the electoral cycle? Many have argued that government actions in temporal proximity to elections have relatively greater weight in the minds of voters (Zaller 1992, Lodge et al 1995). Third, we investigate whether municipal governments can boost their 3x1 spending through their relationship with state government, in ways that reflect a partisan bias.

Data and Model

Our dataset contains information about municipal expenditures, 3x1 Program investments, electoral results, and various demographic indicators. The data cover all municipalities in Mexico in the years 1995-2007 and the unit of analysis is the municipality-year. Mexico's government has a federal structure with 32 states and 2,458 municipalities as of 2007. Sociodemographic data as well as municipal budget information come from INEGI (the Mexican analogue of the US Census Bureau), 3x1 data are from the Ministry of Social Development, and

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²⁴ Social spending is popular even when implemented according to strictly programmatic criteria. De la O (2013), for example, shows that there are long-lasting popularity dividends for the party that first enacted conditional cash transfer programs in Mexico (the PRI), despite the fact that such programs were implemented according to normatively-sound technical criteria, not clientelistically.

²⁵ More precisely, there are 31 states and a Federal District.

electoral results come from the Municipal Elections Database compiled by the *Centro de Investigación y Docencia Económicas* (CIDE) as well as from the *Centro de Investigación Para el Desarrollo*, *A.C.* (CIDAC) a prominent Mexican think-tank. We completed the electoral data series by hand.²⁶

We estimate the following model:

$$k_{i,t} = \alpha + \beta z_{i,t} + \gamma B_{i,t} + \delta s_{i,t} + \mu_t + \theta_i + \epsilon_{i,t}$$

where the subscripts i and t respectively denote municipalities and years, $k_{i,t}$ denotes total expenditures on budget item k (e.g., public works, or debt service), $z_{i,t}$ denotes total 3x1 Program remittances, $B_{i,t}$ is the total budget of the municipality, $s_{i,t}$ is a set of covariates, μ_t are time effects, θ_i are municipality fixed effects, and $\epsilon_{i,t}$ is a disturbance term.²⁷ All economic variables are expressed in real 2002 Mexican pesos. Errors are clustered at the state level in all models.²⁸

The parameter of interest is β , capturing the correlation between 3x1 collective remittances and municipal spending on a particular budget item k in a given year. We control for factors other than municipal government effort that could potentially drive both 3x1 remittances

²⁷ The 3x1 Program remittances, and the matching funds from state and national governments, are not reflected in the municipal budget data.

Descriptive statistics provided in the Appendix.

²⁸ This is a conservative approach, as any potential intra-cluster correlation due to constant factors is already modeled through the inclusion of fixed effects. Clustering tends to increase the size of the estimated standard errors, making it more difficult for our analysis to attain statistical significance.

and municipal spending patterns in two ways.²⁹ First, we exploit the panel structure of our data by including municipal fixed effects in our estimates. Such fixed effects will control for any time-invariant unobserved heterogeneity that could jointly influence both 3x1 remittances and the dependent variable.

Second, we control for a set of covariates *s*. These include a composite index of development (*Índice de Marginación*; higher values indicate a lower level development) and the size of the local population, both of which could influence spending patterns and the amount of collective remittances.³⁰ The time effects capture system-level factors, such as national elections, macroeconomic conditions, and secular changes in decentralization that could influence local per-capita expenditure levels and/or remittances. The size of the budget is likely to influence expenditures on public works and other budget items, and to correlate with migratory intensity (since larger municipalities have both larger budgets and higher average rates of migration), and therefore to the size of remittances. We also include a dummy variable for each of the four states that implemented precursors to the 3x1 Program before 2002.

We additionally ensure that our results are based on municipalities with and without 3x1 projects that are otherwise comparable. Specifically, we use a propensity score to select out those municipalities of our data that fail to meet the assumption of common support. This refinement turns out to be of little consequence, since all our results are the same in the full dataset. This is not especially surprising because most of the data meet the assumption of common support

²⁹ In some cases, 3x1 collective remittances originate with the hometown associations; in other cases they reflect the effort of mayors to encourage collective remittances. Either way, our estimates reflect the budgetary adjustments associated with collective remittances.

³⁰ These variables are from CONAPO. Population and the index of development are available in 5-year intervals; we use linear interpolations.

(enforcing common support drops only 8.4% of the municipalities in the data), and because our use of municipality fixed effects implies that our estimates are based on within-municipality longitudinal variation.³¹

Results

Table 2 displays the regression estimates for the main specifications. The dependent variable in model 1 is expenditure on public works. The coefficient on 3x1 remittances means that for every peso of 3x1 collective remittances, municipal expenditures on public works increase by about 92 cents on average. In other words, municipalities on average are matching 3x1 projects almost one-to-one, consistent with the spirit of the Program.

Where does this money come from? In model 2, the dependent variable is debt service. The coefficient on 3x1 remittances suggests that, for every peso of 3x1 collective remittances, more than one-half of the increase in public works spending is financed by reducing debt service. 32 As mentioned previously, governments are often able to keep the public in the dark concerning governmental debt and finances, and to "inherit" debt burdens to future administrations. The dependent variable in model 3 is salaries to government employees (labeled "personal services" in the budget data). The coefficient on 3x1 remittances shows that spending on salaries remains virtually unchanged even when public works spending increases to match

The propensity score equation includes the total municipal spending, data on housing, municipal water, and sewage, population size and its square, and population size in the *cabecera municipal*; and it is based on the 1995 data (the main analysis is based on data from 1996 and on). The propensity score reaches balance on observables.

³² Some municipalities report debt service expenses only on some of the years covered by our data. In our main results, for such municipalities we impute a value of zero in years with no debt service. The results are practically identical if we treat such observations as missing data.

3x1 collective remittances.³³ Government employment and salaries are frequently utilized to shore up political support, as discussed earlier. The fact that spending on government salaries remains unaffected is consistent with the idea that local governments protect politically-sensitive budget items, instead shifting the budgetary burden to those budget items – such as debt – that are not immediately observable by the public.

[Table 2]

Of the control variables in models 1-3, only the coefficient on municipal income reaches statistical significance in all three models. The coefficient suggests that wealthier municipalities spend more on public works (irrespective of 3x1 remittances). Population reaches statistical significance only in model 2, and the level of development does not reach statistical significance in any of the three models.³⁴

We next investigate whether electoral motivations influence the timing of 3x1 Program disbursements by local governments. We estimate the association of 3x1 remittances with spending on the different budget categories, for different parts of the electoral cycle. Elections generally take place in July, but budgetary and 3x1 data are reported according to the calendar year. Therefore, 3x1 matching efforts by municipal governments in the twelve months before the

³³ We repeat the analysis for every expenditure category as a dependent variable, but omit the rest of the regressions to keep the table simple. The main expenditure categories reported in the data are: Personal Services (includes salaries and benefits), Materials and Supplies, General Services (banking and computer-related services, among other things), Subsidies and Transfers, Real Estate and Other Goods (cars, medical equipment, real estate, among other things), Public Debt, and Public Works.

³⁴ All models in Table 2 include fixed effects, time effects, and the rest of the dummy variables described above (coefficients for these are not shown in the table).

election are likely to be reflected in the data for both the pre-electoral and the electoral calendar years. Hence, if there is an electoral cycle in public works spending for municipalities participating in the 3x1, we expect to observe an increase in the pre-election and/or election years, in comparison with the rest of the years in the cycle.

We augment the model with interaction terms to allow the association between 3x1 collective remittances and the dependent variable to differ for the pre-electoral year, the electoral year, and the intermediate years in the cycle (because of municipal level institutional variation, some electoral cycles in our data are three years long and others are four years long). As indicated in Table 3 (model 1, bottom panel), in the pre-electoral and the electoral calendar years, every peso of collective remittances is associated, respectively, with an additional 1.32 and 1.18 pesos of public works spending.³⁵ In contrast, in the intermediate years, municipalities with 3x1 projects do not seem to increase their spending on public works (the coefficient on the main effect of collective remittances is .45 and it is not statistically significant). In other words, municipal spending appears to be quite responsive to collective remittances on pre-election and election years (with a stronger effect in pre-election years), but less responsive on post-election years. Fieldwork by one of the authors in the municipality of Comonfort, Guanajuato in 2009 suggests that local officials exerted special effort in the pre-election and election years in order to implement 3x1 projects throughout the municipality, consistent with our statistical finding. We note that our finding is distinct and independent from the claim that general municipal spending

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³⁵ These figures correspond to the sum of the coefficient on 3x1 remittances and, respectively, the interaction terms of 3x1 remittances with the pre-electoral and electoral year dummy variables. Both effects are statistically greater than zero. The effect for pre-electoral years is also statistically greater than the reference category (intermediate years), while the effect for the electoral year is similar to that in the pre-electoral year, although somewhat smaller in magnitude and, therefore, slightly less statistically significant (the effects for pre-electoral and electoral years are statistically indistinguishable from each other).

cycles exist. Whether such cycles exist or not, the finding we report here is that the responsiveness of municipal public-works spending to 3x1 collective remittances is conditional on the electoral cycle.³⁶ Our analysis, however, also provides evidence of municipal spending cycles, independent of the 3x1 Program. In Table 3, model 1, the dummy variables for the preelectoral and electoral years have positive and statistically-significant coefficients, indicating that spending on public works in both pre-electoral and electoral is greater than on intermediate years - the omitted reference category. The existence of general electoral cycles in municipal spending is consistent with our finding that spending related to the 3x1 Program cycles with the election calendar.

[Table 3]

Could the finding that 3x1 Program spending follows the electoral cycle be due to a "learning" or "initial setup" effect? Suppose, for instance, that it takes time for incoming municipal administrations to learn how to participate in the 3x1 Program, or that it takes time for their participation to be translated into actual public works. These alternative hypotheses could potentially explain our finding that 3x1 public works spending is concentrated in the pre-election and election years. We can use our data to distinguish these hypotheses from the hypothesis of purposeful electoral timing, by differentiating between instances when the incumbent party is reelected and instances where a new party takes office.³⁷ If the learning or initial setup

³⁶ It is in principle possible for 3x1 responsiveness to be constant over the electoral cycle at the same time for total spending on public works to be cyclical, or, conversely, for 3x1 responsiveness to be cyclical yet for spending not to follow the electoral cycle.

³⁷ We thank an anonymous reviewer for the suggestion to conduct this analysis.

hypotheses were true, then cycles of the sort we find should be substantially more likely to arise, or to be more pronounced, in cases of partisan turnover. When the same party is reelected, even though the personal identity of the incumbent changes, partisan continuity should either reduce or altogether obviate the need to learn or set up from scratch.

To test for this possibility, we allow the coefficient on 3x1 collective remittances to vary for pre-election and election years separately when there is partisan turnover vs. when there is no partisan turnover. We find that partisan turnover (or lack thereof) makes little substantive difference. On pre-electoral years, with or without turnover, 3x1 collective remittances are associated with higher spending on public works. Respectively, the composite coefficients, reflecting the main effect plus the relevant interaction term, are 1.35 and 1.31 (Table 3, model 2, bottom panel).³⁸ The fact that turnover makes little difference is consistent with the political manipulation hypothesis. Nevertheless, the effect is slightly larger when there is turnover, raising the possibility that there could also be a small learning effect. A similar result obtains for electoral years with and without turnover: the composite coefficients are respectively 1.27 and 1.06 (Table 3, model 2, bottom panel).³⁹ Overall, the fact that partisan turnover makes only a

³⁸ The interaction term of 3x1 remittances with the pre-electoral year indicator for the case of partisan turnover is statistically significant at conventional levels, while the equivalent interaction term for the case of no turnover, slightly smaller in magnitude, is just barely below the conventional 0.1 P-value cutoff for statistical significance. However, these two interaction terms are statistically indistinguishable.

The interaction terms of 3x1 remittances with the electoral year indicator for the cases of turnover and no turnover are statistically indistinguishable from each other. Neither interaction term reaches conventional levels of statistical significance, but both of the composite coefficients are statistically different from zero, indicating that public works spending is responsive to 3x1 remittances both in the presence and in the absence of turnover – consistent with the political manipulation hypothesis (as in pre-electoral years, the slightly greater magnitude of the effect in the case of turnover suggests that some learning effect might also be at work). In contrast, public works spending in intermediate years is not responsive to 3x1 remittances (the coefficient on 3x1 remittances is 0.45 and not statistically significant).

small difference in the relationship between participation in 3x1 projects and public works spending is consistent with the hypothesis that the observed temporal patterns are evidence of electoral motives, with learning or setup processes playing at most a secondary role.

As an additional piece of evidence with the potential to help to adjudicate between a political manipulation mechanisms and a learning mechanism, it is useful to consider the evidence on spending cycles independent of 3x1 remittances. As mentioned previously, model 1 in Table 3 documented the existence of such cycles: i.e., higher spending on public works in electoral and pre-electoral years, in comparison with intermediate years. Presumably, the motives/mechanisms underlying such cycles are likely to be similar to those that drive cycles in 3x1 Program-related public works spending. A learning mechanism would predict that general public works spending cycles are steeper in the presence of partisan turnover, while a political manipulation mechanism would predict that partisan turnover should make little difference to the presence and magnitude of such cycles. Our results (Table 3, model 2) indicate that such cycles exist and have a similar magnitude either in the presence or in the absence of partisan turnover. ⁴⁰ This lends additional confidence to our interpretation of the evidence as consistent with the political manipulation hypothesis.

Finally, state-level governments in Mexico are charged with allocating the budget across municipalities. We investigate whether there is bias in such allocations, in relation to municipal spending on public works relating to the 3x1 Program. To this end, we allow the association between 3x1 collective remittances and municipal spending to vary when the partisanship of the municipal and state governments is shared (i.e., when the party in municipal office is the same as

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⁴⁰ The indicator variables for an electoral year, with and without turnover, are statistically greater than for intermediate years (the reference category), but not different from each other. The same is true for pre-electoral years.

the party in state office), vs. when it is not (Table 3, model 3). The result provides evidence of a partisan bias: for every peso of 3x1 collective remittances, municipal spending on public works increases by 1.12 pesos under shared partisanship, but only by 0.65 pesos when partisanship is not shared.⁴¹ In sum, a municipality's ability to fund its share of 3x1 projects is apparently boosted when there is shared partisanship at the state level of government. Taken together, the empirical findings show that municipal spending on 3x1 projects is strongly colored by political-electoral considerations.

Conclusions

Motivated by the recognition that local government has become increasingly important, this paper set out to investigate the role of that level of government in the implementation of redistributive spending, focusing on the 3x1 Program for Migrants in Mexico. The 3x1 Program provides a window into the logic of municipal spending because municipalities play a central role in its implementation. We investigated how municipal governments adjust their budgets and time their disbursements when participating in 3x1 Program projects. Our findings strongly suggest that local governments prioritize their own electoral interests.

Multiple pieces of evidence support this proposition. First, when matching 3x1 remittances, local governments protect politically-sensitive budget categories (specifically, personnel salaries), instead opting to reduce debt service, a less-visible budget category. Second, local governments time their 3x1 Program disbursements to the electoral cycle, increasing such

⁴¹ The point estimate for responsiveness to 3x1 under shared partisanship is substantially larger than when partisanship is not shared, although the difference is estimated somewhat imprecisely (the interaction term has a P-value of 0.11, close to conventional levels of statistical significance).

disbursements as elections approach and decreasing them after elections. Third, local governments run by the same party as the state government appear to receive special help: they increase public works spending in closer proportion to their share of 3x1 projects than local governments run by parties different to that of the state. The results are in line with our fieldwork and interviews, which suggest that municipal expenditures relating to the 3x1 Program have substantial political and electoral importance at the local level. Local governments utilize such projects as opportunities for credit claiming, and time them strategically, with attention to the electoral cycle. 42

We emphasize that our results do not constitute an indictment of the 3x1 Program. The fact that 3x1 Program spending is manipulated for electoral ends introduces certain distortions and biases that could potentially diminish the Program's ability to accomplish some of its goals (in comparison with an ideal scenario with no distortions), but this fact does not necessarily render the Program useless or harmful. The expanded availability of resources for public works, stemming from the contributions of migrants and from the state and national levels of government, may be quite beneficial for the recipient municipalities even in the presence of political/electoral manipulation of the Program. For example, prior research on the 3x1 Program has found that the provision of drainage, sanitation, and water improves in participating municipalities, and that transnational public-private partnerships help to scale up local democratic participation under certain conditions.

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⁴² For example, in a public 3x1 ceremony in the municipality of Comonfort in the state of Guanajuato in 2009, while a representative of the national SEDESOL (Ministry of Social Development) addressed the crowd, a resident and PAN partisan made the point of asking, rhetorically: "And which party is responsible for this project and the creation of this program?" When the SEDESOL representative tried to answer, the resident said: "No, we know, it is the PAN that we owe the thanks for this attention" (ceremony attended by one of the authors in July of 2009).

Nevertheless, beyond the Mexican case and the 3x1 Program, we believe that the politicization of social spending by local governments—an instance of which we have documented in this paper—does have important undesirable aspects from a normative perspective. Long-term development goals can hardly be pursued when investment projects are tightly subject to the calendar of local elections. Similarly, when spending decisions are made on the basis of partisan considerations, citizens living in localities being ruled by a different party from the one ruling higher levels of government are unfairly deprived of resources that can be of critical importance at the local level. Finally, protecting salaries and patronage at the expense of less-visible budget items such as debt may produce important political dividends over the shortrun, but it can also have dire consequences for the sustainability of local finances over the long haul.

Our results also suggest that the increasing importance of local government can have implications for theories of redistributive politics. Such theories tend to abstract away from the incentives of local government, emphasizing instead higher levels of government, such as the state or national level, as the locus of decisions about the targeting of resources for electoral purposes. But insofar as the incentives of local politicians diverge from those of politicians at higher levels of government, targeting strategies – e.g., core vs. swing – may not be implemented as planned. We emphasize two crucial facts that are often missed in discussion of redistributive spending. First, local politicians are often responsible for the way in which national or state resources are actually spent. Second, strategic considerations (e.g., of an electoral nature) can shape the behavior of local politicians in ways that need not conform to the goals of higher levels of government. To the extent that this is true, we see existing accounts of redistributive spending as potentially incomplete in cases with similar traits as the one studied in this paper – local

governments with discretion over resource allocation and facing vigorous political competition. If the contemporary trend toward fiscal and political decentralization continues, it is incumbent upon researchers and policymakers to further investigate the incentives of local politicians and the methods through which they are able to manipulate national or state-level social spending for political gain.

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Table 1 Evolution of 3x1 Program Over Time

Year	2002	2003	2004	2005	2006	2007
Number of Projects	942	899	1,436	1,691	1,274	1,613
States Benefited	20	18	23	26	26	27
Municipalities Benefited	247	257	383	425	417	443
Participating Migrant Hometown Associations	20	200	527	815	723	857
National funds (million pesos)	113.7	99.9	175.9	232.1	192	257.7
State, Municipal, and Migrant Funds (million pesos)	266.5	277.7	461.8	619.7	556.9	690.8

Source: SEDESOL 2008b.

Notes: "National funds" refers to total cash contributions of the national level of government to the 3x1 Program. "State, Municipal, and Migrant Funds" refers to the sum of cash contributions to the 3x1 Program from the state and municipal levels of government and migrant cash transfers.

Table 2
Effect of 3x1 Collective Remittances on Municipal Spending Patterns

Spending category:	(1) Public Works	(2) Debt	(3) Personal Services	
3x1 Remittances	0.917**	-0.496**	-0.118	
	(0.358)	(0.187)	(0.252)	
Municipal Income	0.179**	0.128**	0.340**	
	(0.035)	(0.035)	(0.026)	
Population	315.1	-541.5*	207.6	
	(223.7)	(293.3)	(252.6)	
Index of Underdevelopment	-3896666.5	1337659.6	3532135.9	
	(3398700.1)	(1004155.3)	(2355073.6)	
Constant	-7735968.9	15727013.7	-10260000.0	
	(7435298.1)	(9677804.4)	(8660903.7)	
Time Dummies	Y	Y	Y	
Municipality Fixed Effects	Y	Y	Y	
Within-R2	0.612	0.401	0.872	
Between-R2	0.758	0.392	0.933	
N	22817	23291	23389	

Notes: Robust standard errors clustered by state shown in parentheses below the coefficient estimates. **p<0.1; *p<0.05.

Table 3
Analysis of Electoral Spending Cycles and Shared Partisanship

•	$\begin{array}{cccc} & & & & & & & & & & & \\ & & & & & & &$		(2)		(3)	
Analysis:	Electoral Cycle		,	al Cycle	,	ırtisanship
3x1 Remittances	0.433	(0.464)	0.451	(0.463)	0.654*	(0.339)
Municipal Income	0.179**	(0.035)	0.179**	(0.035)	0.179**	(0.036)
Population	315.9	(223.4)	315.9	(223.3)	314.5	(223.9)
Index of Underdevelopment	-3865064.3	(3366867.3)	-3858137.5	(3386309.7)	-3853764.3	(3418347.3)
Year of Election	2151951.1**	(740184.1)				
3x1 Remittances * Year of Election	0.743	(0.552)				
Year Before Election	1122450.2**	(426271.7)				
3xl Remittances * Year Before Election	0.887**	(0.4)				
Electoral Year (No Turnover)			2456262.9**	(704740.4)		
3x1 Remittances * Electoral Year (No Turnover)			0.605	(0.654)		
Electoral Year (Turnover)			2357874.1**	(972287.4)		
3x1 Remittances * Electoral Year (Turnover)			0.816	(0.545)		
Preelectoral Year (No Turnover)			1592257.9**	(407832.9)		
3x1 Remittances * Preelectoral Year (No Turnover)			0.857	(0.515)		
Preelectoral Year (Turnover)			1227833.2**	(514792.9)		
3x1 Remittances * Preelectoral Year (Turnover)			0.899**	(0.401)		
Same Party in Municipality and State					-196271.6	(632186.8)
3x1 Remittances * Same Party					0.467	(0.284)
Constant	-10740000.0	(7558495.2)	-10810000.0	(7548104.4)	-7612775.6	(7418760.4)
Time Dummies	Y		Y		Y	
Municipality Fixed Effects	Y		Y		Y	
Within-R2	0.613		0.613		0.612	
Between-R2	0.758		0.759		0.758	
N	22817		22817		22817	
Conditional Marginal Effects:						
3x1 + (3x1 * Electoral Year)	1.176**	(0.524)				
3x1 + (3x1 * Preelectoral Year)	1.321**	(0.34)				
3x1 + (3x1 * Electoral Year; No Turnover)			1.056*	(0.601)		
3x1 + (3x1 * Electoral Year + Turnover)			1.267**	(0.541)		
3x1 + (3x1 * Preelectoral Year; No Turnover)			1.308**	(0.476)		
3x1 + (3x1 * Preelectoral Year + Turnover)			1.349**	(0.337)		
3x1 + (3x1 * Same Party)					1.121**	(0.412)

Notes: Robust standard errors clustered by state shown in parentheses to the right of the corresponding coefficient estimates. In models 1 and 2, the reference category is intermediate years in the cycle. **p<0.1; *p<0.05.

Appendix

Descriptive Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Public Works	13630221.7	43279510.3	45.09	1109130368	25141
Debt	2127390.2	22400907.1	0	2354392064	28776
Personal Services	16759693.4	69773412.3	25.4	2516671744	25811
3x1 Remittances	153840.7	860248.8	0	32622738	29268
Municipal Income	51700992.8	187861701.5	23784.8	6409168384	25997
Population	37101.6	109945.1	0	1714482.4	29268
Index of Underdevelopment	0.009	0.986	-2.35	4.49	29079