

# THE POLITICAL ECONOMY OF SOCIAL SPENDING BY LOCAL GOVERNMENT

## A Study of the 3×1 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 3×1 Program in Mexico in 2002–2007, we show that social spending by local government is, in contrast, highly politicized. The 3×1 Program funds municipal public works, with each level of government—municipal, state, and central—matching collective remittances. Our analysis shows that 3×1 municipal spending is shaped by political criteria. First, municipalities time disbursements according to the electoral cycle. Second, when matching collective remittances, municipalities protect salaries of personnel, instead adjusting budget items that are less visible to the public, such as debt. Third, municipalities spend more on 3×1 projects when their partisanship matches that of the state government. Beyond the 3×1 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.*

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 among others).<sup>1</sup> 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).<sup>2</sup>

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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, PROGRESA/Opor-

At the same time, the twin processes of political decentralization (Falletti 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 3×1 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 3×1 Program bear the fingerprints of local-level electoral imperatives.

We focus on the 3×1 Program for the following reasons. First, municipal government plays a key role in its implementation.<sup>3</sup> Relatedly, it is the largest social spending program in Mexico that directly involves the local level of government. Furthermore, participation in the program varies over time and across municipalities, and we have information about municipal budgets both before and after 3×1 Program projects are undertaken, thus we are able to observe how municipalities adjust their spending decisions. The 3×1 Program, therefore, provides a unique window into the logic of local government spending.<sup>4</sup>

The official goals of the 3×1 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.<sup>5</sup> Broadly speaking, the 3×1 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 raise funds 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, municipalities, and citizen beneficiaries in recipient communities. These are typically small-scale public goods projects including

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tunidades, 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.

3. In contrast, the targeting and outlays of 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 local (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.

paving roads, extending the electricity grid, or expanding a water main.<sup>6</sup> In terms of the absolute magnitudes involved, the 3×1 Program is much smaller than national-level social spending programs Oportunidades and Seguro Popular. From the viewpoint of many municipal governments, however, 3×1 projects are of great consequence, and the monies associated with these often constitute a substantial proportion of municipal spending. For example, we estimate that between 2002 and 2007, municipal expenditures on 3×1 were equivalent to at least 20 percent of total public works spending in about 30 percent 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 relationship of 3×1 project monies to municipal spending patterns in different budget categories. We also investigate whether this relationship varies with the electoral cycle, and with copartisanship in the municipal and the state governments. Our data contain yearly information at the municipality level for the 3×1 Program from its inception in 2002, municipal spending accounts from 1995, and electoral data covering all Mexican municipalities from 1995 until 2007. Our analyses rely on over-time variation within municipalities, based on panel regressions with municipality fixed effects. We also conducted original fieldwork and interviews with local government officials, 3×1 Program officers, and other individuals involved with the program.<sup>7</sup>

Our results suggest that municipal spending choices are significantly shaped by political/electoral criteria. We find that, when allocating infrastructure spending to match 3×1 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.<sup>8</sup> Government employees, in contrast, are often political allies or clients.<sup>9</sup>

Consistent with this, our results also show that municipalities carefully time their infrastructure spending associated with 3×1 projects to match the electoral cycle. We find that such spending is substantially concentrated toward the end of the electoral cycle. Importantly, we are able to rule out the possibility that the cyclicity might be mostly due to learning by the party in municipal office over the course of its term: the cycles are present even when the party in office does not change.

6. We use the terms *public works* and *infrastructure* interchangeably throughout the article.

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

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 US\$2 billion (23,000 million pesos) (Xicoténcatl 2013). Prior to becoming governor, Mr. Granier had served as mayor in the municipality of Centro, Tabasco.

9. See Merino (2006) on this point. On local-level patronage in Mexico see Villareal (2002) and Kyle and Yaworsky (2008), among others.

Third, we find that municipalities ruled by the same party that governs the state appear to be advantaged in their ability to match 3×1 collective remittances. When the partisan identity coincides, municipalities match 3×1 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 3×1 projects. This finding documents the ability of municipalities to benefit from co-partisanship at the state level.<sup>10</sup>

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; 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 assuming that local governments passively comply with the choices of their higher-ups. Our analysis suggests that this approach ignores 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.<sup>11</sup>

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 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).<sup>12</sup> 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, subnational 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 subnational levels of government has had a decisive influence on the role of local government in the implementation of nationwide social policies: local governments are now key players in the administration and implementation of many redistributive spending programs.<sup>13</sup>

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; Tucker 2010; De la O 2013). As a result, many governments have rationalized the allocation of social spending, replacing

10. See also Aparicio and Meseguer (2012) and Duquette (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, Fishback, and Cantor 2006).

12. This is true for both federal and nonfederal systems.

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

political criteria with transparent, needs-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 as they participate in various health and education-related activities, have been adopted in a large number of countries.<sup>14</sup>

The net result of these two trends of decentralization—electoral and budgetary—and of 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 do state or national governments. The literature has yet to directly engage these issues and their implications for distributive spending, on both theoretical and empirical levels.<sup>15</sup>

Less directly, our findings also contribute to the literature on political budget cycles. We document the presence of such cycles at the local level of government, something that only a handful of other studies have done (Mourieu 1989; Veiga and Veiga 2007). 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 3×1 Program. Our findings are complementary to Aparicio and Meseguer (2012) and Meseguer and Aparicio (2012), who study the determinants of participation in the 3×1 Program in 2002–2007. They find that municipal strongholds of the PAN (Partido Acción Nacional)—the party that controlled the national government at the time of their study—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 3×1 projects jives well with their claim that partisan motives drive municipal participation in the program.<sup>16</sup>

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 antipoverty programs see Ravallion (2003) and 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 holding office. Our results suggest that, at least in the case we study, the incentives created by the latter effect overwhelm those created by the former.

16. Further afield, Adida and Girod (2011), Duquette-Rury (2014), 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 Duquette (2011) investigates the political consequences of these transnational partnerships for local democratic governance.

Programs with some similarities to Mexico's 3×1 Program exist in many countries. Colombia, Burkina Faso, Morocco, Senegal, and Mali, for example, cofinance projects with migrant groups, provide staff and other administrative support for public buildings and projects financed by HTAs, or support community projects with construction materials in collaboration with migrant clubs at the local, state, and national levels. Moreover, host countries including France and the Netherlands are engaged in codevelopment with migrant clubs from Mali, Senegal, and Ghana (see Gammage 2006; Portes, Escobar, and Radford 2007; Beauchemin and Schoumaker 2009; Galatowitsch 2009; Iskander 2010; and Panizzon 2011). More generally, given the sheer volume and importance of remittances to Latin American and Caribbean countries (US\$56.9 billion), developing countries (\$307 billion), and countries worldwide (\$414 billion), there is surprisingly little research on social spending programs like the 3×1 Program (World Bank 2011).

#### BACKGROUND

The 3×1 Program for Migrants, generally known as the 3×1 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 United States 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 3×1 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). Project selection begins in committees (Comités de Validación y Atención a Migrantes, or COVAM) composed of representatives from each of the parties contributing to the project, including the various levels of government and the migrant associations.<sup>17</sup> Infrastructure projects are generally financed in equal parts by the national, state, and municipal governments and the migrant association.<sup>18</sup> Officially, the program has a variety of objectives, including poverty alleviation and the promotion of relationships between migrants and their communities of origin.

The 3×1 Program has its antecedent in the state of Zacatecas, where the Pro-

17. Additional aspects of project validation involve the federal government (specifically SEDESOL) and state governments (Rules of Operation for the 3x1 Program from March 5, 2003, as well as the modifications to such rules dated June 17, 2004, February 18, 2005, and January 6, 2006, all published in the *Diario Oficial de la Federación*).

18. The 3x1 Program rules (SEDESOL 2008a) specify that the state and municipal levels of governments share 50 percent 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-Castéras 2007). Also, the rules specify an upper limit to the national government's contribution of eight hundred thousand pesos and specify that, if required, the national government can finance up to 50 percent of a project's total cost (SEDESOL 2008a).

Table 1 *Evolution of the 3×1 Program over time*

|   | 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<br>hometown asso-<br>ciations       | 20    | 200   | 527   | 815   | 723   | 857   |
| National funds<br>(million pesos)                         | 113.7 | 99.9  | 175.9 | 232.1 | 192   | 257.7 |
| State, municipal, and<br>migrant funds<br>(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 3×1 Program. "State, municipal, and migrant funds" refers to the sum of cash contributions to the 3×1 Program from the state and municipal levels of government and migrant cash transfers.

gram for Absent Zacatecans was launched in 1986, under the auspices of the state governor Genaro Borrego. 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 produced only twenty-eight 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 3 × 1 Program as it expanded nationally.

### *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 sewerage, drinking water, roads, recreational parks, zoning, and garbage collection.<sup>19</sup> 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 percent of municipalities' available resources.<sup>20</sup>

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 from the national government

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).

to states and municipalities after 1996.<sup>21</sup> 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 percent annually, and they are now responsible for around 7.5 percent of total public expenditures in the country.<sup>22</sup> 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 percent in 1988 to 10.9 percent in 2004.<sup>23</sup> These figures highlight the increasing importance of local government and local electoral politics in the Mexican context.

#### THE POLITICAL ECONOMY OF 3×1 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 3×1 Program.

Social spending tends to be popular, and projects in the 3×1 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 mayors and their parties to claim credit for these projects (Rocha Menocal 2007).<sup>24</sup> Nevertheless, as with any social program, opportunities exist to manipulate spending to further enhance political gain. We look for evidence of such manipulation.

We look for politicization along three dimensions. First, we ask how municipalities adjust different items in their budgets when they contribute their matching portion to 3×1 projects: are politically sensitive budget categories, and in particular personnel salaries, protected? Next, we explore the timing of 3×1 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, Steenbergen, and Brau 1995). Finally, we investigate whether municipal governments can boost their 3×1 spending through their relationship with state government in ways that reflect a partisan bias.

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

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

23. Authors' calculations.

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 according to clientelistic considerations.



*Data and Model*

Our data set contains information about municipal expenditures, 3×1 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 thirty-two states and 2,458 municipalities as of 2007.<sup>25</sup> Sociodemographic data as well as municipal budget information come from INEGI (the Mexican analogue of the US Census Bureau), 3×1 data are from the Ministry of Social Development, and 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.<sup>26</sup>

We estimate the following model:

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

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 3×1 Program remittances,  $B_{i,t}$  is the total budget of the municipality,  $s_{i,t}$  is a set of covariates,  $\mu_t$  are time effects,  $\theta_i$  are municipality fixed effects, and  $\varepsilon_{i,t}$  is a disturbance term.<sup>27</sup> All economic variables are expressed in real 2002 Mexican pesos. Errors are clustered at the state level in all models.<sup>28</sup>

The parameter of interest is  $\beta$ , capturing the correlation between 3×1 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 3×1 remittances and municipal spending patterns in two ways.<sup>29</sup> 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 3×1 remittances and the dependent variable.

Next, we control for a set of covariates  $s$ . These include a composite index of underdevelopment (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.<sup>30</sup> The time effects capture system-level factors—such as national elections, macroeconomic condi-

25. More precisely, there are thirty-one states and a Federal District.

26. Descriptive statistics are provided in the appendix.

27. Municipal budget data do not include collective remittances from HTAs or matching funds from state and national governments.

28. This is a conservative approach, as any potential intracluster 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.

29. In some cases, 3×1 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 (<http://www.conapo.gob.mx>). Population figures and the index of development are available in five-year intervals; we use linear interpolations.

tions, 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 with the size of remittances. We also include a dummy variable for each of the four states that implemented precursors to the 3×1 Program before 2002 (Guanajuato, Guerrero, Jalisco, and Zacatecas).

We additionally ensure that our results are based on municipalities with and without 3×1 projects that are otherwise comparable. This refinement turns out to be of little consequence, since all our results are the same in the full data set. This is not surprising because most of the data meet the assumption of common support, and because our use of municipality fixed effects implies that our estimates are based on within-municipality longitudinal variation.<sup>31</sup>

## RESULTS

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

Where in the municipal budget does this money come from? In model 2, the dependent variable is debt service. The coefficient on 3×1 remittances suggests that, for every peso of 3×1 collective remittances, more than one-half of the increase in public works spending is financed by reducing debt service.<sup>32</sup> As mentioned previously, governments are often able to keep the public in the dark concerning governmental debt and finances, and to pass on 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 3×1 remittances shows that spending on salaries remains virtually unchanged even when public works spending increases to match 3×1 collective remittances.<sup>33</sup> Government employment and salaries are frequently utilized to shore up political support, as discussed earlier. The fact that spending on government salaries remains

31. We use a propensity score to implement common support, using municipality-level data for 1995 (our main analysis begins in 1996) for total municipal government spending, housing, running water, sewerage, population size and its square, and population size in the *cabecera municipal*. This procedure retains over 91 percent of municipalities and attains balance on the aforementioned variables.

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.

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.

Table 2 *Municipal spending and 3×1 collective remittances*

| Spending category:         | (1)<br>Public works       | (2)<br>Debt               | (3)<br>Personal services   |
|----------------------------|---------------------------|---------------------------|----------------------------|
| 3×1 remittances            | 0.917**<br>(0.358)        | -0.496**<br>(0.187)       | -0.118<br>(0.252)          |
| Municipal income           | 0.179**<br>(0.035)        | 0.128**<br>(0.035)        | 0.340**<br>(0.026)         |
| Population                 | 315.1<br>(223.7)          | -541.5*<br>(293.3)        | 207.6<br>(252.6)           |
| Index of underdevelopment  | -3896666.5<br>(3398700.1) | 1337659.6<br>(1004155.3)  | 3532135.9<br>(2355073.6)   |
| Constant                   | -7735968.9<br>(7435298.1) | 15727013.7<br>(9677804.4) | -10260000.0<br>(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 < .1; \*\*p < .05.

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.

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 3×1 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.<sup>34</sup>

We next investigate whether electoral motivations influence the timing of 3×1 Program disbursements by local governments. We estimate the association of 3×1 remittances with spending on the different budget categories, for different parts of the electoral cycle. Elections generally take place in July, but budgetary and 3×1 data are reported according to the calendar year. Therefore, 3×1 matching efforts by municipal governments in the twelve months before the election are likely to be reflected in the data for both the preelectoral and the electoral calendar years. Hence if there is an electoral cycle in public works spending for municipalities participating in the 3×1, we expect to observe an increase in the preelection 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

34. All models in table 2 include municipality fixed effects, year fixed effects, and dummy variables for the four states that had implemented precursors to the 3×1 program before 2002. Coefficients for these variables are omitted from the table for reasons of space.

3×1 collective remittances and the dependent variable to differ for the preelectoral 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 preelectoral and the electoral calendar years, every peso of collective remittances is associated, respectively, with an additional 1.3 and 1.2 pesos of public works spending.<sup>35</sup> In contrast, in the intermediate years, municipalities with 3×1 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 3×1 projects in preelection and election years (with a stronger association in preelection years), but less so in intermediate years. Fieldwork by one of the authors in the municipality of Comonfort, Guanajuato, in 2009 suggests that local officials exerted special effort in the preelection and election years in order to implement 3×1 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 cycles exist. Whether such cycles exist or not, the finding we report here is that the association of municipal public works spending and 3×1 collective remittances is conditional on the electoral cycle.<sup>36</sup> Our analysis, however, also provides evidence of municipal spending cycles, independent of the 3×1 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 preelectoral and electoral years is greater than in 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 3×1 Program cycles with the election calendar.

Could the finding that 3×1 Program spending follows the electoral cycle be due to a “partisan learning” or “initial setup” effect? Suppose, for instance, that it takes time for incoming municipal administrations to learn how to participate in the 3×1 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 3×1 public works spending is concentrated in the preelection 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

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

36. It is in principle possible for infrastructure spending to be invariant through the electoral cycle with respect to 3x1 remittances, and at the same time for total spending on public works to be cyclical, or, conversely, for 3x1-related spending to be cyclical yet for total spending not to vary with the electoral cycle.

Table 3 *Municipal spending, electoral cycles, and shared partisanship*

| Analysis:   | (1)<br>Electoral cycle |             | (2)<br>Electoral cycle |             | (3)<br>Shared partisanship |             |
|---|------------------------|-------------|------------------------|-------------|----------------------------|-------------|
| 3×1 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)  |                        |             |                            |             |
| 3×1 remittances × year of election                | 0.743                  | (0.552)     |                        |             |                            |             |
| Year before election                              | 1122450.2**            | (426271.7)  |                        |             |                            |             |
| 3×1 remittances × year before election            | 0.887**                | (0.4)       |                        |             |                            |             |
| Electoral year (no turnover)                      |                        |             | 2456262.9**            | (704740.4)  |                            |             |
| 3×1 remittances × Electoral year (no turnover)    |                        |             | 0.605                  | (0.654)     |                            |             |
| Electoral year (turnover)                         |                        |             | 2357874.1**            | (972287.4)  |                            |             |
| 3×1 remittances × electoral year (turnover)       |                        |             | 0.816                  | (0.545)     |                            |             |
| Preelectoral year (no turnover)                   |                        |             | 1592257.9**            | (407832.9)  |                            |             |
| 3×1 remittances × preelectoral year (no turnover) |                        |             | 0.857                  | (0.515)     |                            |             |
| Preelectoral year (turnover)                      |                        |             | 1227833.2**            | (514792.9)  |                            |             |
| 3×1 remittances × preelectoral year (turnover)    |                        |             | 0.899**                | (0.401)     |                            |             |

|  |             |             |             |             |            |             |
|--|-------------|-------------|-------------|-------------|------------|-------------|
| Same party in municipality and state         |             |             |             |             | -196271.6  | (632186.8)  |
| 3×1 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      |             |
| <hr/>  |             |             |             |             |            |             |
| N  | 22817       |             | 22817       |             | 22817      |             |
| <hr/>  |             |             |             |             |            |             |
| Conditional marginal effects:                |             |             |             |             |            |             |
| 3×1 + (3×1 × electoral year)                 | 1.176**     | (0.524)     |             |             |            |             |
| 3×1 + (3×1 × preelectoral year)              | 1.321**     | (0.34)      |             |             |            |             |
| 3×1 + (3×1 × electoral year; no turnover)    |             |             | 1.056*      | (0.601)     |            |             |
| 3×1 + (3×1 × electoral year + turnover)      |             |             | 1.267**     | (0.541)     |            |             |
| 3×1 + (3×1 × preelectoral year; no turnover) |             |             | 1.308**     | (0.476)     |            |             |
| 3×1 + (3×1 × preelectoral year + turnover)   |             |             | 1.349**     | (0.337)     |            |             |
| 3×1 + (3×1 × 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 < .1; \*\*p < .05.

office.<sup>37</sup> If the learning or initial setup 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.<sup>38</sup>

To test for this possibility, we allow the coefficient on 3×1 collective remittances to vary for preelection and election years separately when there is partisan turnover versus when there is no partisan turnover.<sup>39</sup> We find that partisan turnover (or lack thereof) makes little substantive difference. In preelectoral years, with or without turnover, 3×1 collective remittances are associated with greater 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).<sup>40</sup> The fact that turnover makes little difference is consistent with the political manipulation hypothesis. Nevertheless, the estimate is slightly larger when there is turnover, raising the possibility that there could also be a small partisan 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).<sup>41</sup> Overall, the fact that partisan turnover makes only a small difference in the relationship between participation in 3×1 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 mechanism and a learning mechanism, it is useful to consider the evidence on spending cycles independent of 3×1 remittances. As

37. We thank an anonymous reviewer for this suggestion.

38. Partisan continuity can stem from a variety of sources, including informal bonds between copartisans in and outside formal office, continuity in access to party-based resources and experience, and a greater likelihood of employment by copartisans in subsequent administrations. In the municipality of Tepechitlán, Zacatecas, for example, the director of social services became mayor in a subsequent administration under the same party; and in Colotlán, Jalisco, the same individual served as mayor for two nonconsecutive terms, with the same party. More generally, municipal data for 2004 show that municipal administrations tended to be substantially more experienced in municipal government when there was partisan continuity (authors' calculations based on SEDESOL 2006).

39. We operationalize a term (in municipal office) with partisan turnover as one where a new party comes to power, in comparison with the previous term. A term without partisan turnover is one where the party in office also held office during the previous term.

40. The interaction term of 3x1 remittances with the preelectoral 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.

41. 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 associated with 3x1 remittances both in the presence and in the absence of turnover. This is consistent with the political manipulation hypothesis (as in preelectoral years, the slightly greater magnitude of the association in the case of turnover suggests that some learning might also be at work). In contrast, public works spending in intermediate years is not associated with 3x1 remittances (the coefficient on 3x1 remittances is 0.45 and not statistically significant).

mentioned previously, model 1 in table 3 documented the existence of such cycles: that is, higher spending on public works in electoral and preelectoral years, in comparison with intermediate years. Presumably, the motives or mechanisms underlying such cycles are likely to be similar to those that drive cycles in public works spending related to the 3×1 Program. 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.<sup>42</sup> 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 3×1 Program. To this end, we allow the association between 3×1 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 the party in state office), versus when it is not (table 3, model 3). The result provides evidence of a partisan bias: for every peso of 3×1 collective remittances, municipal spending on public works is higher by 1.12 pesos under shared partisanship, but only by 0.65 pesos when partisanship is not shared.<sup>43</sup> In sum, a municipality's ability to fund its share of 3×1 projects is apparently boosted when there is shared partisanship at the state level of government. Taken together, the empirical findings suggest that municipal spending on 3×1 projects is strongly colored by political-electoral considerations.

## CONCLUSIONS

Motivated by the recognition that local government has become increasingly important, this article set out to investigate the implementation of redistributive spending by that level of government, focusing on the 3×1 Program for Migrants in Mexico. The 3×1 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 3×1 Program projects. Our findings strongly suggest that municipal governments prioritize their own electoral interests.

Multiple pieces of evidence support this proposition. First, when matching 3×1 remittances, local governments protect politically sensitive budget categories (specifically, personnel salaries), instead opting to reduce debt service, a less visi-

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

43. While the magnitude of the point estimates differs substantially, the difference between them is estimated somewhat imprecisely (the interaction term has a P-value of 0.11, close to conventional levels of statistical significance).



ble budget category. Second, local governments time their 3×1 Program disbursements to the electoral cycle, increasing such 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 3×1 projects than local governments run by parties other than the state party. The results are in line with our fieldwork and interviews, which suggest that municipal expenditures relating to the 3×1 Program have substantial political and electoral importance at the local level. Local governments utilize such projects as opportunities to claim credit, and they time projects strategically with attention to the electoral cycle.<sup>44</sup>

We emphasize that our results do not constitute an indictment of the 3×1 Program. The fact that 3×1 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 to 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 or electoral manipulation of the program. For example, prior research on the 3×1 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 (Duquette-Rury 2014; Duquette 2011).

Nevertheless, beyond the Mexican case and the 3×1 Program, we believe that the politicization of social spending by local governments—an instance of which we have documented in this article—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 short run, 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

44. For example, in a public 3×1 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).

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—for example, the decision to target core supporters, whose partisan preferences are already favorable to the party, versus swing voters, whose partisan preferences are susceptible to influence—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. Furthermore, 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 similar to the one studied in this article—local governments with discretion over resource allocation and facing vigorous local-level political competition. If the contemporary trend toward fiscal and political decentralization continues, it is incumbent upon researchers and policy makers 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.

## 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 |
| 3×1 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 |

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