

Is Local Spending Responsive to the Poor? An Appraisal of Resource Allocation and Electoral Rewards in Mexico

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This article analyzes the performance of local resource allocation in Mexico drawing on the concepts of impartiality and responsiveness suggested by quality of government theories. Focusing on an important poverty-alleviation transfer fund aimed at improving the provision of basic infrastructure, it evaluates to what extent the fund's territorial distribution has followed a compensatory logic, and whether the current management of resources at the local level has improved people's access to basic services. Finally, the article investigates the consequences of local spending choices on electoral behavior. The evidence suggests that, even if the distribution of resources is not entirely sensitive to regional poverty conditions, their use by local authorities has in fact improved basic service coverage, particularly for people who live in the most disadvantaged areas. Local spending choices are, in any case, electorally motivated, as voters reward public works investments at the ballot box.

Keywords: Local Governance, Public Spending, Decentralization, Mexico, Public Administration, Bureaucracy, Elections, Parties, Voting.

Este artículo analiza el desempeño de la distribución de recursos locales en México basándose en los conceptos de imparcialidad y responsabilidad sugeridos por las teorías de la calidad de gobierno. Enfocado en un fondo para la reducción de la pobreza dirigido a mejorar el suministro de infraestructura básica, este estudio analiza hasta qué punto la distribución territorial de éste ha seguido una lógica compensatoria, y si el manejo actual de estos fondos ha mejorado el acceso a los servicios básicos para la población a nivel local. Por último, este artículo investiga las consecuencias de las decisiones de gasto local en el comportamiento electoral. La evidencia sugiere que, aún cuando la distribución de los recursos no es completamente receptiva a las condiciones regionales de pobreza, su uso por parte de autoridades locales ha mejorado la cobertura de los servicios básicos, en especial para

las personas que viven en las regiones más desfavorecidas. Las decisiones de gasto local son, en todo caso, electoralmente motivadas, ya que los votantes recompensan las inversiones en obra pública en las urnas.

Understanding the meaning, causes, and consequences of good governance has become a top priority for scholars and international agencies seeking to promote democracy and development around the world. This concern is particularly relevant in countries that have recently undergone democratic transition processes, where periodic and free elections have become the regular mechanism for power transmission. However, the actual performance of these new electoral democracies is still far from reaching minimum quality standards: corruption and abuse of power are widespread, bureaucratic inefficiencies impede the correct implementation of public policies, powerful minorities often capture the decision making of public authorities, and ordinary citizens face incredible obstacles to influence the government agenda. Unfortunately, all these shortages tend to perpetuate problems of poverty, insecurity, and social inequality that for many years have been prevalent in the developing world, thereby threatening the survival of democracy.

Mexico is an interesting case in this regard, mainly because its protracted process of electoral democratization gradually eroded the hegemony of a party that had monopolized the electoral arena for several decades and successfully allowed the emergence of political competition at virtually all levels of government. As Mexico is a federal republic, the democratization process also reinvigorated the role of subnational governments, which at present play a significant role in the allocation of public resources. A crucial question that currently occupies a prominent place in the research agendas of policy scholars is whether the new conditions of electoral democracy and public expenditure decentralization in the country have somehow improved the way governments work, especially at the local level.

This article analyzes the performance of local public spending in Mexico, drawing from theoretical debates attempting to establish normative standards of the concept of good government. It investigates to what extent the principles of impartiality and responsiveness characterize the operation of public expenditures at the local level during the first half of the 2000 decade, in a context where intense interparty competition had already become the norm for gaining access to public office, and where local governments had also acquired important policy responsibilities and resources to provide basic services to their constituents.

Focusing on an important poverty-alleviation transfer fund aimed at improving basic infrastructure in the most deprived regions in the country, the article examines whether the process of its territorial distribution has been sensitive to regional poverty conditions. In other words, it evaluates to what

extent the distribution of resources across municipalities has followed the compensatory logic explicitly established in the legal framework of the fund. Then, it analyzes the responsiveness of public spending to local needs, asking if the actual operation of resources by municipal-level authorities have contributed to improve the provision of public services, particularly in the regions that are in greater need. For that purpose, I offer an empirical test to estimate the effects of municipal investments on water and drainage coverage rates. Finally, the present work evaluates if local spending has produced electoral payoffs for public decision makers, looking at the effect that public works expenditures have on voter turnout rates and party vote shares in municipal elections.

The empirical evidence reveals that the process of territorial distribution of federal resources earmarked for basic infrastructure has, in general, reduced the scope for discretionary allocations, in agreement with the principle of impartiality in intergovernmental policy making. However, there are still significant differences across states in their resource-distribution choices, which allows for discretionary allocations. Results suggest that local spending has improved citizen access to basic services, especially those living in the most disadvantaged areas. Unfortunately, municipal governments are not doing their best to expand the provision of basic services, as they dedicate a very low share of their available resources to that end. As a final point, the evidence shows that spending has had positive consequences on the electoral behavior of local residents, who have increased their turnout in local elections considerably when governments have fostered their investment levels in local public goods. Yet this outcome has not equally benefited all parties: electoral payoffs have been mostly reaped by the party that for almost 70 years monopolized Mexico's political system through a complex, clientelistic network at the local level: the *Partido Revolucionario Institucional* (PRI [Institutional Revolutionary Party]).

Quality of Government: Theoretical Considerations

The last two decades have witnessed the proliferation of studies addressing how government institutions, processes, and performance affect the living standards of citizens. The literature on this topic has been mostly of an empirical nature, attempting to measure the influence that governance mechanisms have on different developmental outcomes, ranging from economic growth (Chong and Calderon 2000) to economic productivity (Olson, Naveen, and Swamy 2000), private investment (Ades and di Tella 1996), poverty reduction (Burnside and Dollar 1998), and income distribution (Knack and Anderson 1999). The current academic consensus on the topic is that governments play a crucial role on social and economic development, although there is no generalized agreement on what specific institutional conditions are required for governments to have a favorable influence.

Despite the proliferation of academic studies addressing the causes and consequences of good government around the world, it is surprising how little emphasis has been put on clarifying its conceptual meaning. Authors do not even coincide in how they label the concept: some use the term “good governance” (Huther and Shah 1998), while others apply other expressions such as “government performance” (Tavits 2004), “institutional performance” (Putnam 1993), and, more recently, “quality of government” (Rothstein and Teorell 2008). However, aside from differences in terminology, definitions of the concept also vary considerably across theoretical and empirical studies. Huther and Shah (1998, 2), for example, define the concept of governance as a “multi-faceted concept encompassing all aspects of the exercise of authority through formal and informal institutions in the management of the resource endowment of a state.” For Kaufmann, Kraay, and Mastruzzi (2004, 3), governance includes

- (1) the process by which governments are selected, monitored, and replaced
- (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them.

As Cejudo, Sanchez, and Zabaleta (2009) argue, the ambiguity in the definition of the concept of government quality has critical consequences for empirical research. They claim, for instance, that some definitions mistakenly combine two attributes that should be treated separately: the forms of access to power and the methods through which such power is exercised. While the first has more to do with the mechanisms of electoral democracy, the second concerns how power is put into effect by elected authorities during their mandates. Combining those two attributes in a single definition complicates empirical work: for example, it precludes analyzing the interesting, although complex, interrelations between the electoral democracy and the performance of governments. Another drawback in some definitions and measurement of government quality emerges when these include desired policy outcomes rather than observable processes or attributes of the operation of governments, thereby creating a reverse causality problem where it is impossible to know which factors are causes and which others are the results of government performance.

Impartiality: Processes rather than Contents

A noteworthy contribution to the theoretical debate was made by Rothstein and Teorell (2008), who argue that impartiality is the most important normative element to be considered in the definition and evaluation of quality of government. They assert that, “when implementing laws and policies, government officials shall not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy or the law” (170). This proposition implies that the quality of government should not be understood

from the point of view of policy content or substance but rather in terms of the processes that dictate public policy making. Impartiality implies, for example, that the recruitment of the public bureaucracy is driven mainly by meritocratic criteria, as opposed to personal or partisan loyalty, or that the implementation of a social program does not discriminate beneficiaries based on any principle (ethnic, religious, and political) other than those explicitly established by the program's rules of operation.

The appeal of Rothstein and Teorell's proposition is that their definition somehow resolves some of the conceptual and empirical drawbacks that other theoretical efforts encounter, such as reverse causality problems and the confusion of notions of access to power with exercise of power. However, their claim that impartiality should be the central principle of quality of government has been challenged. First, as asserted by Longo (2008), impartiality might not be the only criteria to appraise the quality of government interventions. Although the proliferation of organized interests in contemporary societies strengthens the need for impartiality in the operation of public bureaucracies, policy implementation needs to be both effective and efficient; these two attributes are absent in Rothstein and Teorell's proposition (Longo 2008, 194). Second, as argued by Wilson (2008), the application of impartiality as a universal norm of governmental conduct might not only be unfeasible (since not every consideration can be specified in advance) but even undesirable when circumstances justify a certain degree of flexibility among public officials. What matters most, Wilson asserts, is that bureaucratic discretion should be consistent with a public service ethos, and that the notion of good governance should rest on the principle of public accountability, where governments have to justify the difficult choices they make when rules cannot be stipulated in advance with total precision.

Responsiveness: Governments in a Democratic Setting

Quality-of-government debates fail to recognize that, under an electoral democratic setting, government leaders act as self-interested individuals attempting to assure their political survival through vote-maximizing strategies. The adoption and implementation of public policy is one of the most important mechanisms employed by government representatives to fulfill this goal, as public resources provide a useful means to assure a good degree of loyalty from voters. Therefore, government responsiveness is another dimension that should be considered seriously in the theoretical debate of quality of government, but it is never detached from the electoral motivations facing public authorities.

According to Manin, Przeworski, and Stokes (1999, 9), "a government is 'responsive' if it adopts policies that are signaled as preferred by citizens." Those signals may include not only a variety of nonelectoral mechanisms (e.g., public opinion polls and other forms of direct political action) but also how people vote for alternative policy platforms. As Jane Mansbridge (2003) has pointed

out, there are at least two important theoretical perspectives that address how government responsiveness works in a democracy: “promissory representation” and “anticipatory representation.” The first approach assumes that elected politicians will try to please voters by complying, during their mandate terms, with the campaign promises made in the previous election. The model further assumes that, in the subsequent electoral race, citizens will vote in a retrospective fashion, evaluating whether politicians complied or not with their previous policy promises and sanctioning such performance at the ballot box. Therefore, under promissory representation, government responsiveness derives from the behavior of self-interested politicians that, knowing their performance will be evaluated by retrospective voters, will do their best to respond to their past policy promises.¹

The second approach, anticipatory representation, assumes that politicians do not simply care about accomplishing past promises to be reelected in the next electoral race but rather they anticipate what might be the policy interests of voters in the upcoming election (Mansbridge 2003). If, in fact, government representatives act in such a forward-looking manner, we can expect that they will try to influence voters’ future preferences during their mandates using a variety of interaction instruments, which can range from blatant manipulation strategies to more deliberative mechanisms of policy persuasion. This theory, however, does not predict which of those two instruments are more likely to be used by elected politicians, as the choice might depend on the nature of the whole political system, including political parties, the media, interest groups, and other key players.

In summary, the promissory representation approach implies that the vote is the most important mechanism through which citizens exert control on the behavior of elected politicians, whereas the anticipatory model indicates that such control is not unilateral, but reciprocal, and open to the possibility that the relationship between citizens and government representatives could be based either on manipulation strategies, such as vote buying and clientelism (Stokes 2007), or on deliberation and persuasion.

Implications for the Analysis of Local Spending in Mexico

The theoretical framework discussed above suggests that the notions of impartiality and responsiveness are two reasonable standards to assess the making of public-spending policy at the local level in Mexico. Although an exhaustive analysis of the impartiality principle in local policy making would

¹ However, the capacity of the vote to serve as an effective accountability mechanism is not straightforward. As Manin, Przeworski, and Stokes (1999) have demonstrated, retrospective voting might turn out to be ineffective to improve government performance when constituents are not fully informed concerning exogenous conditions or concerning the effects of policies on outcomes or even when they are not the best judges of their own interests.

require very detailed information on the complex norms, procedures, and organizations that play a role in the allocation of public resources (something that the available municipal-level data simply cannot fulfill), this article concentrates exclusively on the process by which intergovernmental funds for basic infrastructure development are allocated across Mexican states and municipalities. To be precise, in the context of Mexican decentralization of basic infrastructure funds, impartiality implies that the territorial distribution of public resources should be based exclusively on objective indicators of socioeconomic need, compensating with more resources in the regions where poverty levels are more concentrated. As I explain shortly, when the current policy was initially established, explicit formulas were created to overcome potential political biases in the territorial distribution of resources. However, the two-stage method in the distribution of funds might open the possibility for discretionary allocations.

The responsiveness of local spending is evaluated by considering to what extent local governments improve the provision of public services that are essential for social development, such as water and drainage. Furthermore, these services represent two of the most important policy responsibilities that the national constitution explicitly assigned to local governments since 1983. Nevertheless, following Mansbridge's anticipatory representation model, I assume that elected representatives (in this case, Mexico's local mayors) attempt to influence voters through the use of public works expenditures. I therefore analyze whether local investments end up rewarding incumbent politicians at the ballot box, looking at the change in electoral turnout and party vote shares produced by spending on public works. Again, the available data do not allow determining whether such resource allocation choices are, in fact, clientelistic strategies, or if they reflect the true preferences of local constituencies.

A final remark is warranted. While most theories of electoral representation rely on the assumption that politicians act with the aim of being reelected, this institutional feature has been absent in Mexico since 1932, when the national constitution prohibited the consecutive reelection of any elected position in the country (including local mayors, state governors, legislators, and the presidency). This implies that, as Mexican voters cannot punish through their suffrage the incumbent political leaders but only the parties that postulated them, the promissory representation model might be less appropriate to explain the performance of local governments in the country.² Hence, for the purposes of this article, the analysis of government responsiveness will be made under the

² Much of the literature on local governance in Mexico seems to share many assumptions of the promissory representation model. For example, Rodríguez and Ward (1995) assert that the first democratically elected state and municipal governments in the country underwent important shifts in their governance styles. Trying to demonstrate to voters that they represented a genuine departure from the "machine politics" approach of the old PRI administrations, they started to adopt innovating policy and resource management strategies.

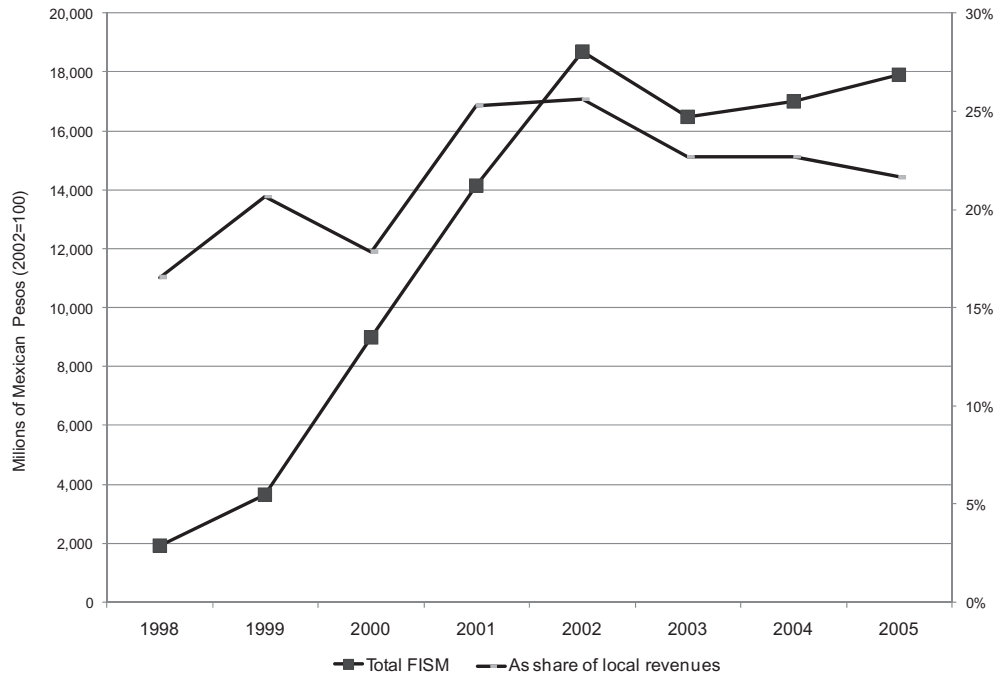
assumptions of the anticipatory representation model, namely that incumbent municipal governments will try to influence voters' preferences through the use of public spending.

The Decentralization of Basic Infrastructure for the Poor

One of the events that marked the end of the single-party hegemony in Mexico took place in 1997, when, for the first time, the PRI lost its absolute majority at the national chamber of deputies. Decentralizing the operation of public funds to subnational governments became a top priority in the agenda of the new legislature, which created an institutional mechanism to transfer several funds to state and municipal governments: the *Ramo 33* (section 33). Those funds were earmarked for the provision of basic public services, such as education, health care, public safety, social infrastructure, and many others that had been directly operated by federal agencies. When *Ramo 33* began its operation in 1998, municipal governments started to receive a social infrastructure fund called *Fondo de Infraestructura Social Municipal* (FISM [Municipal Social Infrastructure Fund]), the goal of which was to stimulate the development of basic infrastructure projects in areas where poverty levels were higher. Since its foundation in 1998 to the present, the FISM has been earmarked to be spent in the following areas, all of which constitute essential elements for the alleviation of poverty at the local level in Mexico: potable water, drainage and sewerage systems, municipal urbanization, rural electrification, basic infrastructure for health and education, improvements for housing services, roads, and infrastructure for productive projects in rural areas. Municipal governments are responsible for deciding the allocation of FISM resources, but a federal law requires them to incorporate citizens in the decision-making process. As shown in Figure 1, the total amount of FISM resources increased rapidly after its creation, reaching its maximum in 2002, and stabilizing afterward at around \$17,000 million pesos (around \$1,400 million U.S. dollars in real terms). Moreover, it has become one of the most important sources of revenue for municipal governments: the FISM represents, on average, 25 percent of their annual revenue, but there are considerable variations among municipalities, which are explained by their relative poverty concentration levels, as is discussed presently.

Given the compensatory purpose of the FISM, the distribution of its resources across the territory is based on the regional level of socioeconomic need. It operates in two stages. First, the distribution of funds from the federal government to the states is made on the basis of a complex formula defined in the fiscal coordination law, which includes monetary and nonmonetary poverty indicators (states with higher poverty levels receive a larger share of resources). The second stage regards the distribution of funds from state governments to municipalities. The law mandates that states should either replicate the same

Figure 1.
Evolution of Fondo de Infraestructura Social Municipal (FISM) Resources in Mexico, 1998-2005



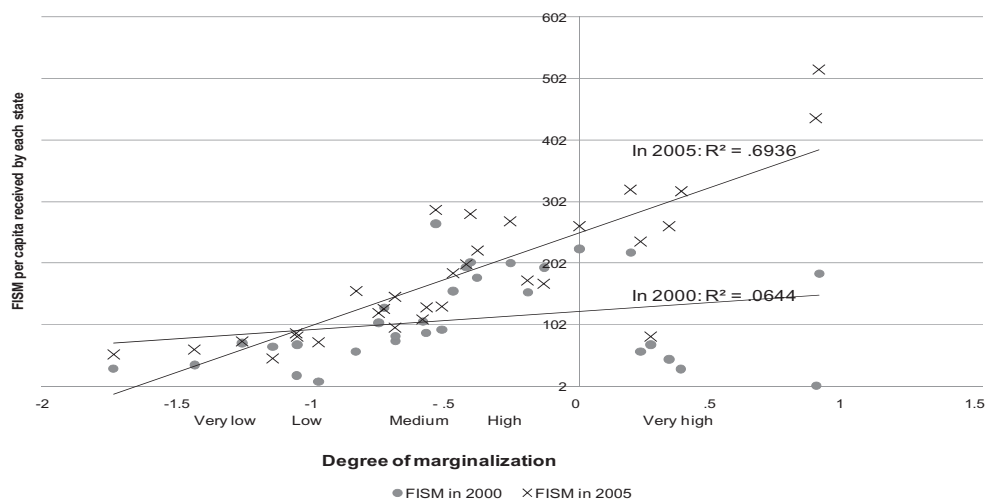
Source: Author’s elaboration based on data from INEGI (2009e).

formula that was used in stage one or, if they lack sufficient data, use an alternative algorithm based on simpler municipal-level poverty indicators.³

The evidence reveals that FISM distribution across the 31 states in the country has improved significantly over time, as Figure 2 demonstrates with data from years 2000 to 2005. Even though a negative relationship is observable between the degree of social marginalization and the per capita amount of FISM resources received by Mexican states in those two years (which is consistent with the compensatory nature of the fund), in the former marginalization explained less than 1 percent of the variation in the distribution of the FISM at the state level, whereas in 2005, the same variable explains almost 70 percent. In other words, the federal government has effectively targeted FISM resources to poorer states, in accordance with the formula.

³ Most state governments have opted for the alternative formula, which gives more weight to the population size of municipalities. It has been argued that such a choice has a political motivation, as state governors aim to target FISM resources to municipalities with more voters (Hernandez Trillo and Jarillo 2007).

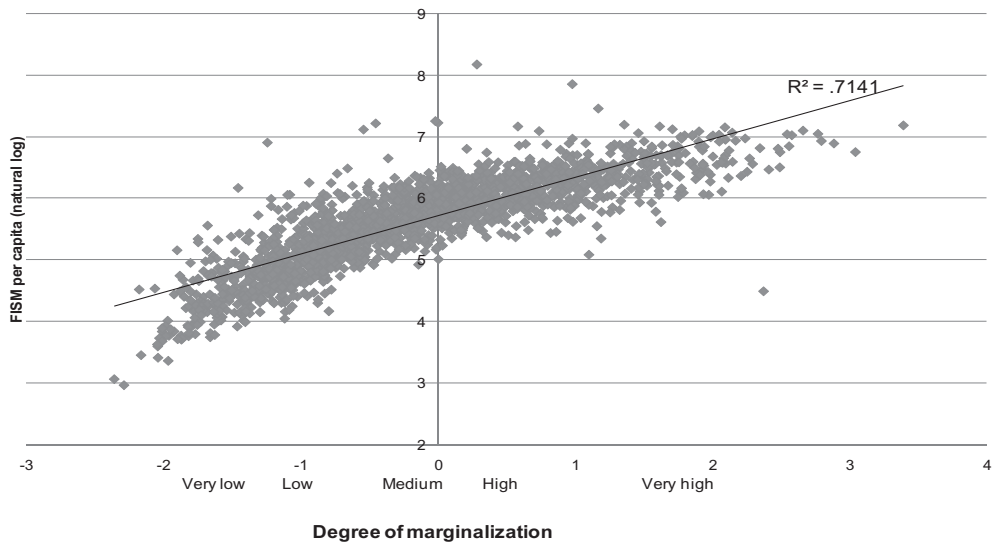
Figure 2.
Relationship between Fondo de Infraestructura Social Municipal (FISM) Resources and Social Marginalization across States in 2000 and 2005



Sources: Author's elaboration based on INEGI (2009e) and CONAPO (2000).

Yet it is unclear whether the second stage of the distribution process (from states to municipalities) is working in a similar vein. Figure 3 shows the same relationship depicted before, but this time based on municipal-level data. Once again, we observe an inverse relation between the FISM and the degree of social marginalization, with the latter variable explaining almost 70 percent of the variation in the distribution. However, the figure masks important disparities in the intermunicipal distribution of FISM resources made by the 31 states. To unravel this issue, Figure 4 displays the adjusted R-squared that results from performing 31 separate estimations (one for each state), regressing the per capita amount of FISM transferred to municipalities on the index of social marginalization. Results reveal marked differences across states. In some of them, marginalization explains almost 100 percent of the intermunicipal variation of FISM per capita (e.g., in Quintana Roo, Campeche, and Nayarit), whereas in others, marginalization accounts for 40 percent or less of the variation (as in Guanajuato, Tlaxcala, and Baja California). In short, state-level distribution choices do not equally comply with the compensatory goal of the FISM. Although it is not the purpose of this article to analyze what accounts for those differences, it could be the case that electoral considerations might explain, at least to some extent, the intrastate distribution of FISM resources. Fieldwork has revealed that municipal-level authorities—even those working in important cities of the country—do not fully understand the algorithm through

Figure 3.
Relationship between Fondo de Infraestructura Social Municipal (FISM) Resources and Social Marginalization across Municipalities (Average per Capita Resources for Period 2000-05)



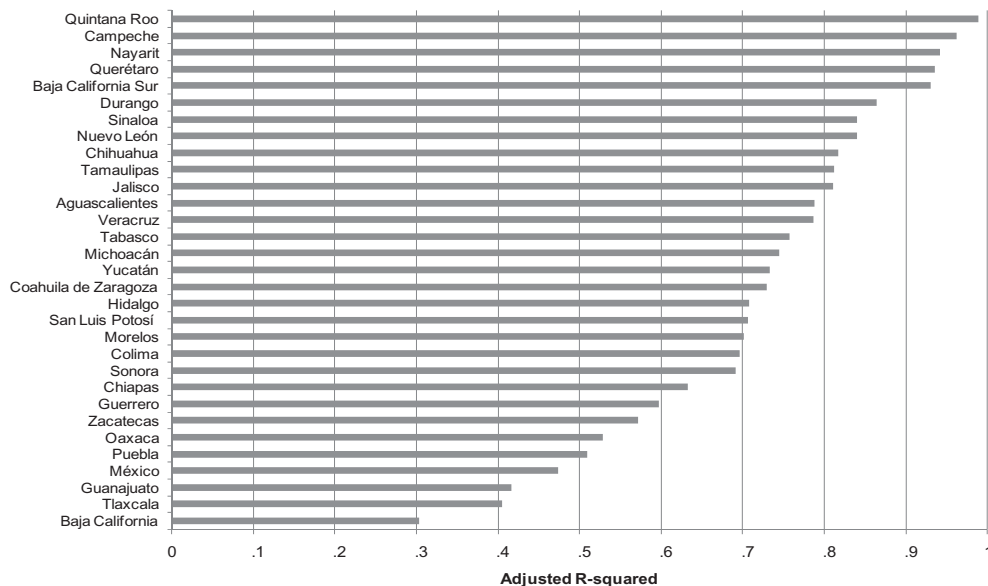
Sources: Author's elaboration based on INEGI (2009e) and CONAPO (2000).

which state-level officials distribute resources across municipalities. In fact, they can very rarely replicate the formula to anticipate the amount of money they will receive during the year (CONEVAL 2011, 45). Therefore, it would not be surprising that state governments could take advantage of this information asymmetry to modify, at least marginally, the relative share of FISM resources based on political motivations.⁴

What is the specific utilization of FISM resources once they reach the municipal level? Although this simple question should be easy to answer, in fact, not enough data exist to allow us to observe the spending patterns of the FISM across municipalities in Mexico. This important limitation is due to one of the main problems facing decentralization at the local level in the country: the lack of transparency that characterizes the implementation of public policy by state and municipal governments. Despite the fact that, after the passage of the first federal law of transparency and access to governmental

⁴In her analysis of three different social development policies, Perez-Yarahuan (2007) finds that the distribution of FISM resources benefits municipalities whose political authorities belong to the party of the state governor, and that more resources are transferred when elections for state-level representatives are held.

Figure 4.
Adjusted R-squared Resulting from Ordinary Least Squares Regressions per State
(Dependent Variable: FISM per Capita; Independent Variable: Index of Social
Marginalization at the Municipal Level)



Sources: Author's elaboration based on INEGI (2009e) and CONAPO (2000).

information in 2003 (*Ley Federal de Transparencia y Acceso a la Información* [Federal Transparency and Access to Information Act]), many state governments started to enact their own legislations on that issue, the quality of state-level laws and the way these are enforced vary significantly across the country. The result of those differences is that many local governments fail to comply with their obligation to report periodically how they spend their budgets, and when they do, discrepancies in accounting categories make it very hard to compare the spending choices across different municipal governments (CONEVAL 2011).

Nevertheless, a national survey of municipal governments carried out in 2004 leads to a broad picture on how municipalities have chosen to spend the FISM, as Table 1 shows. The item labeled "urbanization" is the most important spending category financed through the FISM (a typical municipality dedicates, on average, 30 percent of FISM resources to this end), but it entails projects of very different kinds, such as urban roads, bridges, road pavements, public lighting, and the embellishment of public plazas and gardens. It is unclear, however, whether urbanization projects do, in fact, contribute to alleviate poverty at the local level, but their electoral return, I

Table 1. Use of Fondo de Infraestructura Social Municipal (FISM) Resources by Municipal Governments

	Share of FISM spent on average (%)
Urbanization	31
Water	17
Basic infrastructure for education services	17
Rural roads improvements	17
Rural electrification	15
Sewerage	10
Drainage and sumps	9
Basic infrastructure for health services	8
Infrastructure for productive projects in rural areas	8
Housing improvements	7
Others	7

Source: Secretaría de Desarrollo Social, *Encuesta Nacional de Gobiernos Municipales 2004*.

suspect, might not be inconsequential, mainly because these are projects of great visibility to voters. The next four most important spending categories are water-related projects, education infrastructure, rural road improvements, and electrification of rural areas, all of which are, presumably, of greater relevance for poverty alleviation at the local level. Whether these expenditures have actually improved the well-being of Mexican citizens is a question that remains to be answered. The next section focuses on two of the most crucial areas for social development in the country: the coverage of water and drainage, both of which are under the responsibility of municipal governments.

Is Local Spending Responsive to Citizens' Needs?

Over the last two decades, Mexico has considerably improved the access of citizens to basic services that are essential conditions for social development and poverty alleviation. Two of the most critical services are water and drainage, both of which have been under municipal responsibility since 1983 when the national constitution explicitly established that municipal governments would be in charge of the provision of several public services. From 1990 to 2005, the rate of coverage for water and drainage has notably increased. As shown in Table 2, at the beginning of the 1990s, 59 percent of households living in a typical municipality had access to drinking water either inside their dwellings or at least within the terrain where the house was settled. Fifteen years later, that figure increased to 78 percent. The rate of drainage coverage also increased throughout the same period, starting from an average level of 29 percent of households per municipality in 1990 and reaching 64 percent in 2005. The

Table 2. Water and Drainage Coverage Rates at the Municipal Level in Mexico, 1990-2005 (Percentage of Households Covered per Municipality, Standard Deviations in Parentheses)

	1990 (%)	1995 (%)	2000 (%)	2005 (%)
Water	59 (26)	72 (24)	73 (22)	78 (21)
Drainage	29 (24)	41 (29)	45 (29)	64 (27)

Sources: INEGI (2009a, 2009b, 2009c, 2009d).

increase in water and drainage coverage has not been uniform across the country, as there are considerable variations between municipalities, where the poorest have always had lower access to those services.

To what extent have municipal governments complied with the constitutional obligation to provide their citizens with access to water and drainage? This question is crucial, especially considering that the lack of access to water and drainage systems is one of the most important determinants of poverty in the country, with almost 1,400 municipalities (out of 2,460 cases) displaying “high” and “very high” degrees of social marginalization, according to the data from Mexico’s Population Council (CONAPO 2000). Therefore, a local government that has benefited from federal funds destined for basic infrastructure since 1998 could hardly be regarded as responsive to their citizens if it fails to improve the access of people to basic services, such as water and drainage.⁵

To analyze this issue, municipal-level data on the budgets that local governments allocate to their water provision systems were collected. Unfortunately, this information is available only from 2000 onward and not for every municipality in the country. In addition, there are no disaggregated data on municipal spending in the provision of drainage. I consequently used the per capita amount of funds spent in the category of “public works” as a surrogate indicator for drainage spending, with the limitation discussed before: public works spending is a wide category encompassing projects unrelated to social infrastructure, such as urbanization. Table 3 presents the descriptive statistics of municipal spending on water provision and public works from 2000 to 2004. Each year, municipal governments spent, on average, between 36 and 59 pesos per capita to provide water to their citizens, and between 300 and 600 pesos in public works as a whole. In both cases, differences between governments are enormous: some contribute less than one cent per person, while others dedicate several

⁵ Previous research has analyzed the increase in the rates of coverage for water and drainage throughout the period 1990-2000, but focusing on the role of electoral competition at the municipal level (Cleary 2004; Moreno-Jaimes 2007).

Table 3. Water and Public Works Expenditure 2000-04

Year	Average Spending in Water (Standard Deviation)		Average Spending in Public Works (Standard Deviation)	
	Mexican Pesos per Capita	As Share of Public Works Expenditures (%)	Mexican Pesos per Capita	As Share of Total Revenues (%)
2000	36.33 (57.83)	14 (17)	307 (367)	22 (17)
2001	36.33 (66.89)	7 (11)	532 (472)	32 (19)
2002	53.19 (87.48)	9 (12)	554 (405)	33 (17)
2003	46.96 (90.98)	8 (12)	564 (434)	32 (16)
2004	58.74 (104.36)	9 (12)	609 (469)	36 (20)

Source: INEGI (2009e).

Table 4. Water and Public Works Expenditure Distribution by Degree of Marginalization (Real Average Spending for the Period 2000-04)

Degree of Marginalization (CONAPO Index)	Water Spending per Capita	Public Works Spending per Capita
Very low	17.2	307.0
Low	25.7	390.5
Medium	40.3	465.7
High	55.5	585.2
Very high	63.9	780.7

Sources: INEGI (2009e) and CONAPO (2000).

thousand pesos in water-related projects and in public works in general. In fact, the great majority of municipalities (70 percent) never allocated more than 10 percent of their public works budget to their water provision systems, which demonstrate their very low financial effort in this area. Nevertheless, both water and public works expenditures seem to follow a progressive allocation, as shown in Table 4, where the average spending per capita for the period 2000-04 increases as the level of social marginalization gets higher.

To evaluate the impact of local expenditure on water and drainage coverage rates, two regression models were performed for each service, on the basis of municipal-level data. The dependent variable is the rate of service coverage in 2005, controlling for the level of coverage municipalities had in 2000. The dependent variable is expressed in terms of the natural logarithm of the coverage

odds ratio, implying that the marginal effect of public expenditure is curvilinear: it diminishes as the rate of coverage approaches a level of 100 percent. The key explanatory variable is the average of real per capita municipal spending on water during the period 2000-04; in the case of drainage, it is the average of real per capita spending in public works for the same period. This latter variable is also included in the analysis of water coverage because we can assume that water provision is affected not only by the spending made on water specifically but also by other public works investments. The two models also control for the administrative expenses of local governments (also expressed in real per capita terms), assuming that the provision of services, to function properly, requires a number of organizational resources (administrative staff, information technology, and the like) in addition to the investments explicitly allocated to create water and drainage infrastructure projects. Besides public spending, service coverage strongly depends on the sociodemographic context of municipalities. One obvious factor affecting the expansion of service coverage is the rate of population growth over the five-year period analyzed, which is included to control for the pressures on service demand created by an increase in the number of residents. Another important element that influences the coverage of water and drainage is the rate of population concentration, measured as the proportion of people living in localities with more than 1,000 inhabitants. We can reasonably assume that the marginal cost to provide water and drainage diminishes as residents concentrate in fewer neighborhoods because of economies of scale. Therefore, this variable should increase the rate of coverage of the two services. As a number of unobserved regional factors might also influence service coverage rates (e.g., the availability of state government funds for water and drainage projects, or the existence of regional water supply systems), state-specific effects are included in the two regressions (30 dummy variables were introduced for each state, taking Aguascalientes as the comparative case). The estimations were performed using ordinary least squares but giving a higher weight to municipalities with more households.⁶ To simplify the interpretation of the results reported in Tables 5 and 6, I discuss them as the effect of each variable on the proportion of households covered by each service, holding the remaining variables constant in their median value (unless otherwise indicated).

As expected, the initial level of coverage for both services is strongly correlated with the coverage attained five years later, which only demonstrates that service coverage is path dependent. However, the fundamental question has to do with the effectiveness of municipal spending. In the case of water, results reveal that this variable is statistically significant, but the magnitude of its effect

⁶ Since coverage rates were calculated on the basis of the number of households per municipality, cases with more households provide more reliable information on such coverage rates (i.e., they have less variance). Nevertheless, the same model was estimated using ordinary least squares without using any weighting factor, producing similar results.

**Table 5. WLS Regressions on the Log-Odds Ratio of Water Coverage Rate
(Dependent Variable: Natural Logarithm of Water Coverage Odds Ratio in 2005)**

Constant	-2.7*** (.156)
Water coverage rate in 2000	5.6*** (.156)
Local spending in water (per capita)	.002*** (.001)
Local spending in administrative payroll (per capita)	-0.0003 (.0001)
Local spending in public works (per capita)	.0001* (.00007)
Population growth rate (2000-05)	-.173 (.275)
Population concentration index	.783*** (.099)
Adjusted R ²	.83
N	1,986

Notes: Huber–White standard errors in parentheses. N-1 (30) state fixed effects were included in all estimations (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition. The estimation method is weighted ordinary least squares (population size is the weighting factor). WLS, weighted least squares.

*** p < .001; * p < .05.

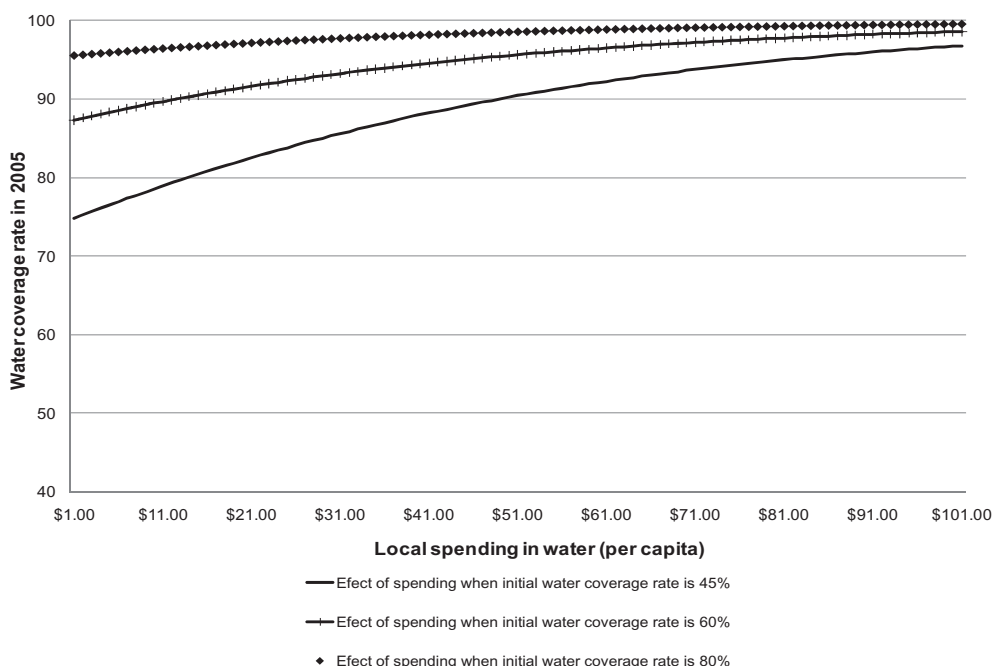
**Table 6. WLS Regressions on the Log-Odds Ratio of Drainage Coverage Rate
(Dependent Variable: Natural Logarithm of Drainage Coverage Odds Ratio in 2005)**

Constant	-1.7*** (.118)
Drainage coverage rate in 2000	5.29*** (.143)
Local spending in administrative payroll (per capita)	-0.001* (.001)
Local spending in public works (per capita)	.001*** (.000)
Population growth rate (2000-05)	-.162 (.281)
Population concentration index	.347*** (.118)
Adjusted R ²	.9
N	2,413

Notes: Huber–White standard errors in parentheses. N-1 (30) state fixed effects were included in all estimations (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition. The estimation method is weighted ordinary least squares (population size is the weighting factor). WLS, weighted least squares.

*** p < .001; * p < .05.

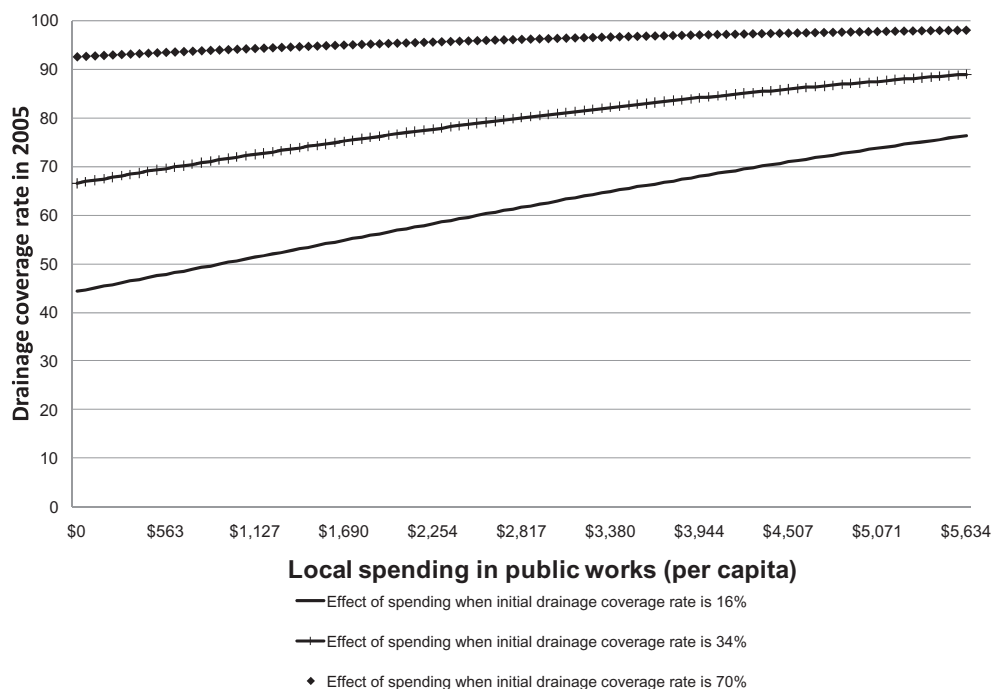
Figure 5.
Effect of Local Spending on the Rate of Water Coverage (Based on Table 5 Results)



depends on the initial level of water coverage. As shown in Figure 5, the effect of water spending on coverage is inconsequential when the initial level of coverage was already high (e.g., 80 percent), but its effect significantly increases when the initial coverage is set at lower levels.⁷ Take, for instance, a municipality where only 45 percent of households had access to water in 2000. If no public spending on water had been made at all, it would reach a coverage rate of 75 percent in 2005. If, on the contrary, the government of the same municipality had spent the maximum amount possible within the sample (\$1,220 per capita), the rate of water coverage would reach a level of 97 percent five years later. In other words, the net effect of public expenditure on water coverage would come to 22 percent, although this scenario is rather unrealistic, taking into account the low effort that municipalities put in financing their water systems. The same occurs in the case of drainage. A simulation of regression results depicted in Figure 6 reveals that the net effect of public works expenditure on the growth of drainage coverage is around 32 percent, but only when the function is evaluated at an initial coverage rate of 16 percent (the effect of public works spending on

⁷ The graphical simulations presented in Figures 5 and 6 were made under the assumption that the remaining control variables are fixed in their median values.

Figure 6.
Effect of Local Spending on the Rate of Drainage Coverage (Based on Table 6 Results)



drainage coverage decreases when the function is evaluated at higher initial coverage rates). The factor that exerts the biggest influence on the growth of coverage for the two services is the level of population concentration, which confirms the importance of economies of scale in the provision of basic services in the country. In fact, it contributes to increase the effectiveness of public works expenditures on the rate of drainage coverage in 10 percent.

The implications of population concentration for public policy are very important, mainly because poverty-alleviation strategies face considerable obstacles when dealing with localities where residents are extremely dispersed, as is the case in most rural municipalities in Mexico. Further research is needed to elucidate the complex factors explaining the isolation of rural communities, the consequences of this phenomenon for development, and the policy options that could be implemented to sort out this problem.

In summary, although municipal spending has proven to be a useful instrument for improving the access of citizens to water and drainage, it is clear that local governments could do much more to achieve this goal, as they could dedicate a larger share of their resources to finance the provision of water. In addition, because the public works spending data include many

items that are irrelevant for poverty alleviation and social development (such as urbanization), conclusions on its effect on drainage coverage should be taken with reservation. The next section analyzes if local spending produces electoral payoffs that local politicians need to survive in the political arena.

Electoral Consequences of Local Spending

The analysis of the consequences of local spending on service coverage in Mexico revealed that municipal governments could clearly play an important role in increasing citizen access to services, such as water and drainage, particularly in places where coverage rates are low. However, it could hardly be argued that social development is, by itself, the most important goal of public decision makers acting in a democratic setting, as their political survival strongly depends on the electoral rewards they obtain through their policy choices. This section investigates the effects of public spending on the electoral behavior of local residents.

There is a vast theoretical literature addressing the political determinants of public expenditure in a democracy, and there are also several empirical studies on the Mexican case that find that important poverty-alleviation programs launched by the federal governments over the last two decades had an electoral motivation, either because the distribution of public funds were targeted according to partisan loyalty or because the operation of those expenditures ultimately rendered significant electoral rewards to incumbent authorities.⁸ This section investigates the electoral consequences of local spending in Mexico, considering that the rise of interparty competition at the municipal level has greatly increased the incentives of local decision makers to use public spending as a means to obtain votes. I pay particular attention to the spending on public works projects, as these represent highly visible policy outputs that allow incumbent authorities to claim credit for their implementation.

It is important to note, however, that public works expenditures are, to some extent, a politically risky investment for a vote-maximizing politician, as their benefits are of a collective nature: once put into practice, projects such as road improvements, public lighting, or the renewal of public parks provide benefits to every resident of a neighborhood, regardless of their partisan membership or tendency. That is, the provision of public goods yields benefits to both political supporters and opponents, as exclusion is unfeasible. In

⁸ Some of the most important works on redistributive politics are Cox and McCubbins (1986) and Dixit and Londregan (1996). For the Mexican case, a widely cited study on the electoral determinants of *Programa Nacional de Solidaridad* (PRONASOL) is Molinar and Weldon (1994). Two recent pieces on contemporary social development programs are Perez-Yarahuan (2007) and De la O Torres (2007), both of which find evidence that the allocation of public spending is related to electoral outcomes.

contrast, the provision of individual goods that are excludable and indivisible (e.g., housing materials, food, and other in-kind subsidies) represents a more reliable way for politicians to assure the political support of specific persons (Stokes 2007). Therefore, it is not surprising that empirical research has consistently found that poverty-alleviation programs providing individual benefits to the poor in Mexico (e.g., *Programa de Educación, Salud y Alimentación* (PROGRESA)) rendered positive electoral rewards to the PRI (De la O Torres 2007). However, relying only on individual-level spending as a vote-maximizing strategy would be financially unattainable, thus we can expect that politicians would end up applying a mixed-spending approach, allocating a share of available funds to programs that provide benefits to individuals, while assigning another portion of the budget to the provision of collective goods.

To evaluate the influence that local spending has on the participation of voters at the ballot box, a regression model was estimated. The first model uses the change of the general turnout rate between the two consecutive municipal elections as the dependent variable.⁹ As local elections in Mexico are not concurrent (they vary according to state-level electoral calendars), only municipalities that held elections either in 2000 or in 2001 were included.¹⁰ Given that the local government term lasts for three years only, the same municipalities had new elections in 2003 and 2004, respectively. The average rate of voter turnout in the first period was 35 percent, with a standard deviation of 7.8 percent. In the second period (2003 or 2004), the average turnout rate increased to 38 percent, with a standard deviation of 8.4 percent. Later on, I use the change in the share of votes obtained by the governing party as dependent variables in an attempt to observe whether the spending choices of incumbent politicians render electoral payoffs.

The independent variables are the following. First, the public-spending variable is measured as the average share of resources spent on public works during the three years of the government term (i.e., in-between the two electoral races), mainly because this spending category is used to finance projects that are easily observable for people. On average, local governments dedicate 34 percent of their budget to finance public works projects, while the remaining share is used to pay the bureaucratic payroll and to cover other administrative expenses (the standard deviation of this variable is 14.4 percent). The hypothesis is that

⁹ All electoral data come from the *Centro de Investigación para el Desarrollo* (CIDAC) database on local elections (see CIDAC's website for further information); www.cidac.org

¹⁰ These 1,151 municipalities (47 percent of all municipalities in the country) belong to any of the following nine states, which together comprise nearly 60 percent of the population of Mexico, excluding the Federal District: Chiapas, Guanajuato, Jalisco, Michoacán, Estado de México, Nuevo León, Oaxaca, Puebla, and Veracruz. I did not include cases that held elections in 2002 (and subsequently in 2005) because I found that the INEGI public finance data from 2005 onward had too many missing observations, which also prevented an estimation of the model with more recent data.

the high visibility of public works expenditures renders electoral rewards to local decision makers, which implies that it should increase not only the general level of voter turnout in the next election but also the share of votes obtained by the incumbent party. The second independent variable is the closeness of the electoral race in the second voting period. As an election becomes more competitive, people might be more motivated to vote, both because citizens perceive that the outcome can be more easily influenced by their suffrage (Cox 1988) and also because parties have more incentives to mobilize their supporters. To measure electoral closeness, I use the margin of victory, measured as the difference in the share of votes obtained by the two strongest parties (i.e., the winner and the runner up) in the second electoral period. The average level of the margin of victory among municipalities that had elections in 2003 or in 2004 was around 11 percent, with a standard deviation of 11 percent as well. Another factor that might affect the change in voter turnout is the effective number of parties participating in an election. I do not have a strong theoretical expectation regarding the influence of this variable on electoral turnout, but my impression is that, as electoral competition in Mexican local races is typically bipartisan (or at most tripartisan), high levels of party fragmentation are likely to discourage people to participate, mainly because they might feel that the effectiveness of their vote would be diluted. The number of parties is measured through the Laakso–Taagepera index, the average value of which, in the second electoral period, was equal to 2.7 parties, with a minimum of one and a maximum of six. Finally, the model controls for the rate of population growth between 2000 and 2005, as electoral turnout is likely to increase simply as a result of demographic change. Given lack of municipal-level data, the model leaves aside many other factors that might have an influence on the change in voter turnout in Mexican local elections, such as the level of campaign expenditures, the degree of exposition of candidates to the media (when that is feasible in some municipalities), or certain national conditions that affect the participation of voters (e.g., if the election is concurrent with a presidential race).

A usual methodological concern in models estimating the relation between public policy and electoral behavior is endogeneity: policies might affect how people vote, but also the actual (or even the expected) behavior of voters might influence the policy choices of public decision makers, as I pointed out in the earlier discussion of “anticipatory representation” theory (Mansbridge 2003). I argue that endogeneity is not problematic in this model as long as the dependent variable is measured as the change in the rate of turnout between two time periods (which is not observable *ex ante* to public authorities) rather than as the rate of turnout prevailing at a specific point in time (which would certainly be either observable or at least easy to anticipate by governments). In other words, it is reasonable to expect that local spending could cause the turnout rate to change between 2000 and 2005, but the opposite is hardly believable. The estimation technique applied is ordinary least squares,

whose results are reported in the first column of Table 7, together with robust standard errors.¹¹

The most important variable predicting the change in the general rate of voter turnout is the relative share of public works expenditures.¹² The magnitude of its effect can be rather large, as for every 1 percent of increase in the relative share of public works expenditure, the turnout rate is predicted to increase, between the two electoral periods, by more than .12 percent. In other words, a municipal government that dedicates almost its entire budget to finance public works projects would generate an increase in turnout 12 percent more in comparison to another government that does not allocate any resources to finance public works. Given that the average margin of victory (i.e., the difference in the share of votes between the winning party and the runner up) was equal to 11 percent, the effect of public works spending could potentially determine the outcome of a local electoral race. The remaining explanatory variables widely confirm expectations: the margin of victory is inversely related to the change in electoral turnout, implying that as the race becomes tighter, more voters are encouraged to participate (in fact, this variable appears as the second most important factor affecting the change in turnout). In addition, the number of parties that take part in a local race is also statistically significant and negatively related to the change in turnout, confirming that party fragmentation discourages people to vote. The rate of population growth, although it is slightly below the conventional 5 percent threshold of statistical significance, is positively related to change in turnout.

The next question is whether the vote increase caused by public works spending benefits the party in power. Constitutionally, municipal governments have full authority on their budgetary allocations, except when they use earmarked federal funds like the FISM, where they have to comply with the specific spending categories discussed in previous sections.¹³ Despite the fact that municipal-level authorities are supposed to have an independent bearing on their spending choices, fieldwork has shown that, in some states, state-level authorities play also a significant role in local budget decisions. Sometimes, this is carried out by setting up additional regulations to those already established by federal laws and, at other times, by conditioning the release of state resources to

¹¹ A potential objection to the use of ordinary least squares when dealing with a dependent variable that can only take values between -1 and 1 (such as the change in turnout and in the share of votes) is that it might introduce some biases in the estimations. To address this issue, I ran the four models using truncated regression procedure in Stata (Stata Corporation, College Station, TX), as suggested by Long (1997), with a lower bound of -1 and an upper bound of $+1$. The coefficients obtained for every variable were essentially the same as those reported in Table 7.

¹² Its standardized beta coefficient (not reported) is the largest of all independent variables included in the model.

¹³ However, even in this latter case, municipalities still have sufficient leverage to decide the concrete projects to be carried out and to determine the location where such projects would be implemented.

Table 7. Ordinary Least Squares Regressions on the Rate of Change of Turnout and Party Vote Shares between Consecutive Elections (Dependent Variables: Change in the Turnout Rate and in the Share of Votes for PRI, PAN, and PRD between Two Consecutive Municipal Elections)

	Turnout	PRI Coefficient (Standard Error)	PAN Coefficient (Standard Error)	PRD Coefficient (Standard Error)
Margin of victory	-.130*** (.025)	-.088 (.079)	-.135** (.044)	-.016 (.040)
Number of parties (Laakso-Taagepera)	-1.314*** (.329)	-3.717*** (.971)	-2.697*** (.655)	-1.205 (.675)
Public works spending	.125*** (.015)	-.534*** (.108)	.03 (.03)	-.09** (.03)
PRI governor		-56.603*** (5.939)		
PRI mayor		-13.537** (4.456)		
Public works spending * PRI governor		.975*** (.114)		
Public works spending * PRI mayor		.048 (.075)		
PAN governor			-8.717* (3.693)	
PAN mayor			-13.856*** (3.313)	
Public works spending * PAN governor			.161* (.074)	
Public works spending * PAN mayor			-.029 (.057)	
PRD governor				-10.254 (6.564)
PRD mayor				-21.894*** (4.813)
Public works spending * PRD governor				.180 (.112)
Public works spending * PRD mayor				.096 (.082)
Population growth rate	4.196* (2.330)	-2.495 (5.336)	2.411 (3.894)	-8.562 (4.664)
Constant	.984 (1.450)	26.346*** (6.427)	10.778*** (3.146)	7.077** (2.838)
N	1,027	1,026	1,026	1,026
R-squared	.1219	.1798	.1947	.1247

Notes: Huber–White standard errors in parentheses. The estimation method is ordinary least squares.

*** p < .001; ** p < .01; * p < .05.

finance projects supported by the governor (Moreno-Jaimes 2008). In any case, we can reasonably expect that local and state authorities will decide their spending policies trying to promote the vote for their parties in the subsequent election. Considering that the electoral landscape of Mexican municipalities falls predominantly under the control of three national political parties PRI, *Partido Acción Nacional* (PAN [National Action Party]), and *Partido de la Revolución Democrática* (PRD [Democratic Revolutionary Party]), three separate regressions are performed, where the respective dependent variable is the change in the share of votes obtained by each of those parties. The explanatory variables, as in the previous model, are the relative share of public works investments, the margin of victory, the effective number of parties taking part in the contest, and the rate of population growth. However, to capture the effect that government spending has on the electoral payoff for the incumbent party, this time, the model includes two additional elements that interact with the operation of public budgets: the party banner of the state governorship and the party banner of the local mayor (the municipal president). To be precise, when the dependent variable is, for example, the change in the share of votes for the PRI, the model includes a dummy variable taking a value of one if the state executive is controlled by that party (and zero otherwise), another dummy variable taking a value of one if the local mayor belongs to the PRI (and zero otherwise), and the multiplicative interaction of each of those two variables with the share of public works spending. The same logic applies when the dependent variable is the change in the share of votes for other parties. Those interactions are meant to reflect that incumbents use the public budget to favor the electoral success of their own parties. The hypothesis I attempt to demonstrate is that the electoral payoff that a given party obtains by means of public spending will be significant only if such party controls either the state governorship or the municipal presidency (or both).

Results are reported in the remaining three columns of Table 7. In the case of the vote share for the PRI, the evidence clearly supports the hypothesis that local spending has a positive effect only when the state governorship is controlled by that party: public works expenditures can generate an increase in the voting share for the PRI as large as 4.4 percent (i.e., the difference between the coefficient corresponding to public works spending and the coefficient corresponding to the interaction of that variable with the PRI governor). Surprisingly, public spending does not have any electoral effect when evaluated according to the party membership of the local mayor. Taken together, these two results strongly suggest that the electoral use of public works expenditures comes mainly from governors rather than from local mayors, casting serious doubts on the alleged increased autonomy of municipal governments in Mexico after the end of the single-party hegemony era.¹⁴ This finding is also in line with

¹⁴ The minor role played by local mayors in fostering the electoral strength of their parties through public spending was reexamined by running the model with some adjustments. First, I included a

the argument that, during the years of Vicente Fox's presidency (2000-06), state governors greatly increased their political influence *vis-à-vis* the municipalities (Ward, Wilson, and Spink 2010). The same outcome is observed in the case of the vote share for the PAN, as the effect of public spending is positive and statistically significant only in municipalities belonging to states where the PAN controls the governorship, although its magnitude is much smaller than in the case of the PRI (local spending would produce an increase if the share of votes for the PAN of no more than 1.6 percent). Yet again, the party membership of the local mayor does not seem to have any relevance in explaining the electoral effect of public works investments. In the case of the PRD, local spending does not seem to foster its electoral strength at all, probably because that party was governing only a minority of states and municipalities in the period analyzed (10 and 12 percent, respectively).¹⁵ Therefore, by and large, the PRI seems to be the party that benefits the most from the allocation of public works expenditures at the municipal level. This result should not be surprising at all, considering that the strong clientelistic networks that the PRI managed to build throughout its seven decades of dominance in Mexico continues to allow it to make a more effective electoral use of public resources.

Concluding Remarks

A widespread argument regarding Mexico's process of democratization is that subnational governments are not sufficiently prepared to face the complex challenges of social development and combating poverty inherited from many years of economic stagnation and authoritarian rule. This assertion has been used to question the ability of fiscal and administrative decentralization to efficiently deliver collective goods and services that are critically needed to improve the living conditions of people. The findings presented in this article portray a mixed account regarding how the decentralization of basic infrastructure spending performed during the first half of the 2000 decade, once the whole country had already experienced the arrival of electoral competition at all levels of government, including the phenomenon of party alternation in the Mexican presidency.

The empirical evidence suggests that the principle of policy impartiality in the distribution of earmarked resources for poverty alleviation across Mexico's

set of dummy variables to identify municipalities that are predominantly rural (i.e., those with less than 5,000 inhabitants) and those belonging to the metropolitan zones in Mexico. Second, the estimations were performed again but this time dividing the sample according to the population size of municipalities (four population categories were created). Not one of those adjustments produced significant changes on the general results reported in Table 7.

¹⁵ Incidentally, note that the vote share obtained by all the parties analyzed decreased in the next election if municipalities had been governed by that same party. This outcome only indicates that there is usually a negative correlation between the share of votes obtained by a winning party in the previous election (a share that should be large enough for a party to become the winner) and the rate of change in the share of votes between period 1 and period 2.

regions has considerably improved, as the federal funds for basic infrastructure have reached the states in greater need of support. This outcome might derive from the fact that, under a situation of greater political plurality at the national level, where rival players are eager to oversee each other regarding public money matters, it is extremely difficult for the federal government not to comply with the compensatory goals established by the law. Unfortunately, the principle of impartiality vanishes as soon as Mexican federalism starts to play its part in the process of fund distribution: not every state allocates FISM resources in accordance to municipal poverty conditions. Considering the lack of transparency that prevails in many states and municipalities of the country, this might open the door for a discretionary use (and abuse) of public resources.

Once the federal money reaches the local level, the evidence indicates that governments have, in general, employed those resources to expand the provision of water and drainage to their residents, especially for people who live in the most disadvantaged areas. However, their spending effort could be very much improved, as the share they dedicate to develop the local water provision system is extremely low. Nevertheless, the responsiveness of municipal governments seems to be electorally motivated, something that is not necessarily a bad outcome, except for the fact that we cannot be absolutely confident that such spending is actually targeted to address social development problems. In other words, although public works expenditures have increased voter turnout rates and the share of votes for the incumbent parties at the local level, it could be the case that money is spent on urbanization projects of great public visibility but with little or no effect on poverty alleviation. Viewed through the lenses of the anticipatory representation model, this outcome could be a very negative signal concerning the nature of the relationship between governments and voters in Mexico, as using public spending as a means to obtain votes without really improving the conditions of the poor would be a clear symptom of electoral clientelism.

The main policy implication derived from the findings is that the current social infrastructure decentralization strategy should be drastically modified, rendering the delivery of federal funds more responsive to the results obtained by local governments in providing their residents with pertinent services. For example, the intergovernmental distribution algorithm could create a positive incentive to reward local governments that prove successful in lowering poverty levels, follow transparent systems for public resource management, and involve local residents in the definition of spending priorities. Otherwise, the present decentralization strategy will hardly promote democratic accountability, even with the prevalence of electoral competition around the country.

This article has also raised important issues for further research. The first concerns the fact that local governments seem to play a less important role in exploiting the electoral advantages of public spending, compared with state governors. This finding generates some doubts concerning the ability of

municipalities to effectively act as autonomous units of government, in agreement with the constitutional reforms that were put forth in 1983 and subsequently in 1999. Although this result could not be generalized to the whole country (because the data correspond only to nine states), it is evident that state governments play a significant role in conditioning municipal-spending policies, either by imposing supplementary formal restrictions on local resource allocation or through the use of political pressures that restrict the decision-making autonomy of local mayors. In any case, further research is required to disentangle how intergovernmental politics influence local-spending decisions. The second issue raised by this article is why has the PRI been more likely to reap the electoral benefits of public works expenditures, compared with the PAN and the PRD? I suggested as a potential explanation that the strong clientelistic networks that the PRI built up for many years to assure the political control of the territory could still be functional, allowing that party to better take advantage of local spending.¹⁶ But an unresolved question meriting further investigation is why the other two parties have not developed such capacity, despite their long-standing presence in local elections.

About the Author

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References

ADES, ALBERTO, and RAFAEL DI TELLA. 1996. "The Causes and Consequences of Corruption: A Review of Recent Empirical Contributions." *IDS Bulletin* 27 (2): 6-11.

¹⁶ This explanation is in line with Díaz-Cayeros' (2006) work on municipal reelection, where he asserts that the strong density of the organizational networks of the PRI explain its electoral entrenchment at the local level.

BURNSIDE, CRAIG, and DAVID DOLLAR. 1998. "Aid, the Incentive Regime, and Poverty Reduction." *The World Bank Policy Research Working Paper Series*. Accessed on September 1, 2011. Available online at http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1998/06/01/000009265_3980901093425/Rendered/PDF/multi0page.pdf

CEJUDO, GUILLERMO, GILBERTO SANCHEZ, and DIONISIO ZABALET. 2009. "El (casi inexistente) debate conceptual sobre la calidad del gobierno." *Política Y Gobier* 16 (1): 115-156.

CHONG, ALBERTO, and CESAR CALDERON. 2000. "Empirical Tests on the Causality and Feedback between Institutional Measures and Economic Growth." *Economics and Politics* 12 (1): 69-81.

CLEARY, MATTHEW. 2004. *Electoral Competition and Democracy in Mexico*. PhD Dissertation, Department of Political Science, University of Chicago.

CONSEJO NACIONAL DE EVALUACIÓN DE LA POLÍTICA DE DESARROLLO SOCIAL (CONEVAL). 2011. "El Ramo 33 en el desarrollo social en México: evaluación de ocho fondos de política pública." *Consejo Nacional de Evaluación de la Política de Desarrollo Social*. Accessed on September 1, 2011. Available online at http://www.coneval.gob.mx/cmsconeval/rw/resource/coneval/info_public/PDF_PUBLICACIONES/Ramo_33_PDF_02032011.pdf

CONSEJO NACIONAL DE POBLACIÓN (CONAPO). 2000. "Índices de marginación 2000." *Consejo Nacional de Población*. Accessed on September 1, 2011. Available online at http://www.conapo.gob.mx/index.php?option=com_content&view=article&id=128&Itemid=194

COX, GARY. 1988. "Closeness and Turnout: A Methodological Note." *Journal of Politics* 50 (3): 768-775.

COX, GARY, and MATHEW MCCUBBINS. 1986. "Electoral Politics as a Redistributive Game." *Journal of Politics* 48 (2): 370-389.

DE LA O TORRES, ANA. 2007. *Effects of Anti-Poverty Programs on Electoral Behavior: Evidence from the Mexican Education, Health, and Nutrition Program*. PhD Dissertation, Department of Political Science, Massachusetts Institute of Technology. Accessed on September 1, 2011. Available online at <http://dspace.mit.edu/handle/1721.1/42390>

DIAZ-CAYEROS, ALBERTO. 2006. "Accountability and Municipal Reelection in Mexico." Paper presented at the Annual Conference of the American Political Science Association, Washington, DC. September 1-4. Accessed on September 1, 2011. Available online at <http://www.international.ucla.edu/lac/fiscalfederalism/municipalaccountability.pdf>

DIXIT, AVINASH, and JOHN LONDREGAN. 1996. "The Determinants of Success of Special Interests in Redistributive Politics." *Journal of Politics* 58 (4): 1132-1155.

HERNANDEZ TRILLO, FAUSTO, and BRENDA JARILLO. 2007. "Transferencias condicionadas federales en países en desarrollo: el caso del FISM en México." *Estudios Económicos* 22 (2): 143-184.

HUTHER, JEFF, and ANWAR SHAH. 1998. "Applying a Simple Measure of Good Governance to the Debate on Fiscal Decentralization." *World Bank Operations Evaluation Department Policy Research Working Paper*. Accessed on September 1, 2011. Available online at <http://info.worldbank.org/etools/docs/library/128808/Hutter%20and%20Shah%201998.pdf>

INSTITUTO NACIONAL DE ESTADÍSTICA, GEOGRAFÍA E INFORMÁTICA (INEGI). 2009a. "Censo General De Población y Vivienda 1990." *Instituto Nacional de Estadística, Geografía e Informática*. Accessed on September 1, 2011. Available online at <http://www.inegi.org.mx/sistemas/olap/proyectos/bd/consulta.asp?p=16653&c=11893&s=est>

_____. 2009b. "Censo General de Población y Vivienda 2000." *Instituto Nacional de Estadística, Geografía e Informática*. Accessed on September 1, 2011. Available online at <http://www.inegi.org.mx/sistemas/olap/proyectos/bd/consulta.asp?p=14048&c=10252&s=est>

_____. 2009c. "Censo de Población y Vivienda 1995." *Instituto Nacional de Estadística, Geografía e Informática*. Accessed on September 1, 2011. Available online at <http://www.inegi.org.mx/sistemas/olap/proyectos/bd/consulta.asp?p=16647&c=11881&s=est>.

_____. 2009d. "Censo de Población y Vivienda 2005." *Instituto Nacional de Estadística, Geografía e Informática*. Accessed on September 1, 2011. Available online at <http://www.inegi.org.mx/est/contenidos/proyectos/ccpv/cpv2005/default.aspx>

_____. 2009e. "Finanzas públicas estatales y municipales 2002-2005." *Instituto Nacional de Estadística, Geografía e Informática*. Accessed on September 1, 2011. Available online at http://www.inegi.gob.mx/prod_serv/contenidos/espanol/bvinegi/productos/continuas/economicas/finanzas/2002-2005/EFIPEM2002-2005.pdf

KAUFMANN, DANIEL, AART KRAAY, and MASSIMO MASTRUZZI. 2004. "Governance Matters III: Governance Indicators for 1996-2002." *The World Bank Policy Research Working Paper Series*. Accessed on September 1, 2011. Available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=405841

KNACK, STEPHEN, and GARY ANDERSON. 1999. "Is Good Governance Progressive? Property Rights, Contract Enforceability and Changes in Income Equality." Paper presented at the Annual Meeting of the American Political Science Association, Atlanta, GA. September 2.

- LONG, J. SCOTT. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage.
- LONGO, FRANCISCO. 2008. "Quality of Governance: Impartiality Is Not Enough." *Governance* 21 (2): 191-196.
- MANIN, BERNARD, ADAM PRZEWORSKI, and SUSAN STOKES. 1999. "Introduction." In *Democracy, Accountability, and Representation*, edited by Adam Przeworski, Bernard Manin, and Susan Stokes. Cambridge: Cambridge University Press. 1-26.
- MANSBRIDGE, JANE. 2003. "Rethinking Representation." *American Political Science Review* 97 (4): 515-528.
- MOLINAR, JUAN, and JEFFREY WELDON. 1994. "Electoral Determinants and Consequences of National Solidarity." In *Transforming State Society Relations in Mexico: The National Solidarity Strategy*, edited by Wayne Cornelius, Ann L. Craig, and Jonathan Fox. San Diego, CA: University of California. 123-141.
- MORENO-JAIMES, CARLOS. 2007. "Do Competitive Elections Produce Better-Quality Governments? Evidence from Mexican Municipalities, 1990-2000." *Latin American Research Review* 42 (2): 136-153.
- _____. 2008. *Democracia electoral y calidad gubernativa: el desempeño de los gobiernos municipales en México*. Tlaquepaque: ITESO-UIA.
- OLSON, MANCUR, SARNA NAVEEN, and ANAND V. SWAMY. 2000. "Governance and Growth: A Simple Hypothesis Explaining Cross-Country Differences in Productivity Growth." *Public Choice* 102 (3-4): 341-364.
- PEREZ-YARAHUAN, GABRIELA. 2007. "Social Development Policy, Expenditures, and Electoral Incentives in Mexico." *Ibero Forum*. Accessed on September 1, 2011. Available online at <http://www.uia.mx/actividades/publicaciones/iberoforum/3/pdf/gabrielap.pdf>
- PUTNAM, ROBERT. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- RODRÍGUEZ, VICTORIA E., and PETER M. WARD. 1995. *Opposition Government in Mexico*. Albuquerque, NM: University of New Mexico Press.
- ROTHSTEIN, BO, and JAN TEORELL. 2008. "What is Quality of Government: A Theory of Impartial Political Institutions." *Governance* 21 (2): 165-190.
- STOKES, SUSAN. 2007. "Is Vote Buying Undemocratic? In *Elections for Sale: The Causes and Consequences of Vote Buying*, edited by Frederic C. Schaffer. Boulder, CO: Lynne Rienner. 117-143.

TAVITS, MARGIT. 2004. *Institutions or Culture: A Comparative Study of Government Performance*. PhD Dissertation, Department of Political Science, University of Pittsburgh. Accessed on September 1, 2011. Available online at http://challenger.library.pitt.edu/ETD/available/etd-03302004-125054/unrestricted/Tavits_etd_2004.pdf

WARD, PETER M., ROBERT H. WILSON, and PETER K. SPINK. 2010. "Decentralization, Democracy and Sub-National Governance: Comparative Reflections for Policy-Making in Brazil, Mexico and the US." *Regional Science Policy and Practice* 2 (1): 51-62.

WILSON, GRAHAM. 2008. "The Quality of Government." *Governance* 21 (2): 197-200.