

Copyright  
by  
Carlos Luis Moreno  
2005

**The Dissertation Committee for Carlos Luis Moreno Certifies that this is the  
approved version of the following dissertation:**

**DECENTRALIZATION, ELECTORAL COMPETITION AND  
LOCAL GOVERNMENT PERFORMANCE IN MEXICO**

**Committee:**

---

Peter M. Ward, Supervisor

---

Victoria E. Rodríguez

---

Chandler Stolp

---

Robert H. Wilson

---

Kenneth Greene

**DECENTRALIZATION, ELECTORAL COMPETITION AND  
LOCAL GOVERNMENT PERFORMANCE IN MEXICO**

**by**

**Carlos Luis Moreno, B.A.; M.P.P.**

**Dissertation**

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

**Doctor of Philosophy**

**The University of Texas at Austin**

**May, 2005**

## **Dedication**

To Heréndira, Alan and Emiliano.

To my mother, my sister, and to the memory of my father.

## **Acknowledgements**

The completion of this research project has been possible thanks to many persons and institutions. First of all, I would like to thank Professor Peter M. Ward, the chair of my dissertation committee, for his invaluable guidance and support throughout the course of this dissertation. An authority on Mexican politics and urban governance, Peter's insightful suggestions were crucial for the development of the arguments and methods of this work. His knowledge of the nuances of the policymaking process in Mexico were always extremely helpful. He gave me freedom to flesh out the basic ideas and also provided priceless advice on how to convey them in a professional manner.

Professor Victoria E. Rodríguez also played a key role in my doctoral studies at the University of Texas, Austin. As an expert in Mexican policy and federalism, Victoria was always encouraging and supportive of my work ever since I took her theory course in the first semester of the program. I appreciate that she agreed to be part of my dissertation committee notwithstanding the multiple responsibilities she had to handle as Dean of Graduate Studies.

My special gratitude to Professor Chandler Stolp for all his support, intellectual motivation, and friendship during my stay at the doctoral program. Chandler's contribution to my academic career has been fundamental, not only for having taught me

the uses and misuses of statistical modeling, but also for having shown me the importance of an effective social science research design.

I am highly indebted to Professor Robert H. Wilson for all his comments and suggestions to this research project. I learnt many aspects of social policy analysis from him during my stay at the University of Texas at Austin. My gratefulness also to Professor Kenneth Greene, who generously accepted to serve as my external reader. Ken's insightful comments and critiques were decisive inputs for my work, primarily because he pushed me to frame the arguments and hypotheses within the scholarly literature in political science.

I would like to express my thankfulness to Professor Raul Madrid, who was the first person to read and comment the earliest draft of a research proposal that later on turned out to be this doctoral dissertation. Raul introduced me to the methods and theoretical frameworks of modern social science inquiry, and his comments have always been of great influence on my work. My special thanks to the following professors at the University of Texas at Austin, who in many ways contributed to shape this research project: James K. Galbraith, Robert C. Luskin, Shama Gamkhar, David Warner, Henry Dietz, Pat Wong, and Ken Matwiczak.

My fellow graduate students at the LBJ School, and many others with whom I developed a deep personal and professional relationship, were extremely important for my academic development during the program. All of them contributed to make my stay in Austin a memorable experience. My special thanks to Anjum Khurshid, Héctor Robles, Hamid Ali, Leonardo Gatica, Alberto Peredo, Mona Koerner, Gloria Eldrige, Jorge Morales, Carolina Flores, Enrique Garcilazo, Salvador Apud, Luis Fujiwara, Marcel Dulay, and Hyunsub Kum. I am also highly indebted to Matthew Cleary, a graduate from the University of Chicago, whose work on municipal governance in

Mexico provided me with valuable ideas. Matt shared his time to discuss my arguments, data, and methodology.

My graduate studies were made possible through the financial support of the *Consejo Nacional de Ciencia y Tecnología*, a two-year fellowship from the University of Texas at Austin, the E.D. Farmer International Fellowship administered by the Mexican Center at UT-Austin, and the Visiting Fellowship at the Center for U.S.-Mexican Studies at the University of California, San Diego. My most sincere thanks to all these institutions.

Before I started my doctoral studies at UT-Austin, I became affiliated for three years with CIDE in Mexico, where I became actively involved in social science research and teaching. My stay at CIDE was crucial to the development of my academic career. I am grateful to all my colleagues at CIDE for their support and encouragement. I am particularly indebted to Enrique Cabrero, Juan Pablo Guerrero, David Arellano, Judith Mariscal, and Fausto Hernández.

The Center for U.S.-Mexican Studies at the University of California, San Diego, became my academic home for almost one year during which I had the privilege to receive a visiting fellowship to complete this research project. The Center provided me with an excellent intellectual environment to present and discuss some of the chapters in this dissertation and interact with scholars from diverse academic disciplines. I am particularly grateful to the Center's director, Christopher Woodruff, for his hospitality and his feedback on my project. Thanks are also due to Gordon Hanson, Wayne Cornelius, and Carlos Bazdresch for their insightful comments. My gratitude to all my fellows at the Center and to the staff, especially to Juan Carlos Martínez, Erika González, Luis Estrada, Pablo Cotler, Gabriela Recio, Nicole Peterson, Pablo Parás, Moramay López Alonso, Deborah Boehm, Erik Lee, Carlet Altamirano, and Graciela Platero.

This study would not have come to completion without the generosity of many people in Mexico who participated in the fieldwork. Local politicians, government officials, and community association leaders made this project possible by providing interviews, data, and documents. At their request, they will remain anonymous.

My time as a graduate student in Austin and San Diego was an unforgettable experience thanks to the support and encouragement of all my friends, including: Leonardo, Patricia, *doña* Luz, Ariel, Ramon, Estrella, Alberto, Gabriela, Jim, Apen, Jacqueline, Héctor, Rocío, Anjum, Hamid, Chris, Stephanie, Juan Carlos, Erika, and many others who gave me their friendship. My deepest thanks to my parents in law, Angela and Raul, and to Citlalli for their friendship.

I want to thank my parents, Carlos and Saloie, for the first-class education they provided me, for their love and understanding, and for showing me the importance of professionalism and honesty. Unfortunately, my father did not live long enough to see this work completed. I thank my sister, Saloie, for having always been a source of encouragement. Finally, I wish to thank my wife, Heréndira, and my two sons, Alan and Emiliano, for their love, patience, and encouragement during the years we have spent together. I dedicate this work to them.



# **DECENTRALIZATION, ELECTORAL COMPETITION AND LOCAL GOVERNMENT PERFORMANCE IN MEXICO**

Publication No. \_\_\_\_\_

Carlos Luis Moreno, Ph.D.

The University of Texas at Austin, 2005

Supervisor: Peter M. Ward

This dissertation investigates the factors that cause local governments in Mexico to improve their performance. Drawing on a variety of theoretical frameworks, the study concentrates on the ability of competitive elections to motivate policymakers to enhance the quality of local governance, under the assumption that the threat of being removed from office compels local governments to be more accountable to their electorate. In the Mexican case, where the consecutive reelection of local mayors is constitutionally forbidden, it is hypothesized that the connection between electoral competition and government performance stems from the motivation of municipal presidents to assure the victory of their party in the subsequent election. In addition, the dissertation analyzes to what extent the variations in local government performance are explained by demand-driven factors, such as better educated and highly mobilized citizens.

The four performance dimensions analyzed in the study are the rates of coverage of basic services under the responsibility of municipal governments, the willingness and ability of municipal officials to build up the institutional capacity of local bureaucratic

apparatuses, the formulation of local spending choices, and the enforcement of taxing authority. The hypotheses in this dissertation are tested with the aid of multivariate statistical techniques on the basis of data covering the majority of Mexican municipalities throughout the period 1990-2001. The research also involved the use of qualitative methods, such as semi-structured interviews with state and local officials, and a focus group.

The empirical evidence reveals that competitive elections have expanded the policymaking autonomy of local governments, and also have started to encourage them to increase their levels of investment on public works. In addition, the findings demonstrate that higher rates of basic literacy and voter turnout encourage local authorities to increase the provision of basic services, highlighting the fact that governments are substantially responsive to the pressures of mobilized citizens. However, a highly mobilized political environment may obstruct the institutionalization of municipal governments, particularly when they face strong incentives to use patronage for the allocation of public resources.

## Table of Contents

<b>List of Tables .....</b>	<b>xiv</b>
<b>List of Figures.....</b>	<b>xvi</b>
<b>Chapter 1 Introduction: Analyzing the Performance of Local Governments in Mexico .....</b>	<b>1</b>
1.1. Introduction.....	1
1.2. The process of democratization in Mexico .....	4
1.3. Federalism and decentralization in Mexico .....	9
1.4. Scope and definitions.....	15
1.5. Arguments and hypotheses .....	19
1.5.1 The roles of electoral competition and party alternation .....	19
1.5.2. The influence of social participation.....	22
1.5.3. Vertically divided governments (juxtaposition) .....	24
1.5.4. Socioeconomic influences .....	26
1.6. Data and methodology .....	27
1.7. Overview of the dissertation .....	30
<b>Chapter 2 Local Governance, Decentralization and Performance: A Theoretical Overview.....</b>	<b>33</b>
2.1. Good governance: a new topic of academic relevance.....	34
2.2. The literature on decentralization .....	37
2.2.1. Classical decentralization theories.....	37
2.2.2. Critical views on decentralization.....	39
2.2.3. Political perspectives on decentralization.....	44
2.3. The literature on local governance and institutional performance.....	46
2.4. The literature on local governments and decentralization in Mexico .....	49
2.5. Implications of the literature for this research .....	59

<b>Chapter 3 Electoral Competition, Public Service Provision, and the Institutional Capacity of Mexican Municipalities.....</b>	<b>64</b>
3.1. Electoral competition in Mexican local governments .....	65
3.2. Measuring government performance .....	75
3.3. The coverage of municipal services: a descriptive overview .....	79
3.4. An empirical public service provision model .....	84
3.5. Empirical findings.....	94
3.6. Developing institutional capacity .....	98
3.7. Competition versus participation: final remarks.....	107
 <b>Chapter 4 Local Democracy and Fiscal Decentralization in Mexico: Municipal Budgetary Choices and Tax Performance .....</b>	 <b>109</b>
4.1. Decentralization of local infrastructure in Mexico .....	111
4.2. The analysis of local budgetary choices .....	115
4.2.1 Conceptual framework and hypotheses .....	116
4.2.2. An empirical budgetary allocation model.....	119
4.2.3. Discussion of results: the virtuous interaction of decentralization with competition.....	128
4.3. The analysis of local tax performance .....	135
4.3.1. Consequences of decentralization on tax performance: an empirical framework .....	137
4.3.2. Discussion of results: does decentralization hurt taxation? .....	143
4.4. Decentralization, competition, and fiscal performance: Final remarks .....	147
 <b>Chapter 5 Decentralization and Municipal Performance in a Mexican State: the Case of Estado de México.....</b>	 <b>152</b>
5.1. Background of the state .....	155
5.2. Regulatory framework .....	157
5.3. The perspective of state government officials .....	162
5.4. The view of municipal authorities .....	170
5.4.1. Jilotepec de Molina Enriquez.....	173
5.4.2. Soyaniquilpan de Juárez .....	179
5.4.3. Villa del Carbon.....	183

5.4.4. Toluca .....	186
5.4.5. The municipality of Zapopan, State of Jalisco.....	188
5.5. Summary of implications from the case studies .....	191
5.6. The logic of municipal spending in five municipalities of the Estado de México: an empirical assessment.....	197
<b>Chapter 6 Democratization and Local Government Strengthening: The Ongoing Challenges and Imperatives for Public Policy .....</b>	<b>205</b>
6.1. Summary of findings.....	207
6.1.1. Electoral democratization and local development: an unfinished business?.....	207
6.1.2. Building up governmental capacity: merit-based administrative modernization or political patronage?.....	209
6.1.3. Increased policymaking autonomy: when competitive elections make a difference.....	211
6.1.4. Decentralization without accountability? .....	214
6.2. Theoretical and policy implications.....	217
6.2.1. Implications for theory .....	217
6.2.2 Policy implications.....	222
6.3. The current policy debate in Mexico .....	226
<b>Appendix A. Municipal presidencies won by each party in Mexico, 1989-2001 .....</b>	<b>231</b>
<b>Appendix B. State governorships won by each party in Mexico, 1980-2001.....</b>	<b>236</b>
<b>Appendix C. Construction of the variables .....</b>	<b>240</b>
<b>Appendix D. Descriptive statistics of the variables.....</b>	<b>244</b>
<b>Appendix E. Frequency distribution of the survey items utilized to construct the institutional capacity indices.....</b>	<b>249</b>
<b>Bibliography .....</b>	<b>257</b>
<b>Vita... ..</b>	<b>267</b>

## List of Tables

TABLE 3.1. PEARSON CORRELATIONS BETWEEN ALTERNATIVE MEASURES OF ELECTORAL COMPETITION IN MEXICAN MUNICIPAL ELECTIONS, 1990-2001.....	70
TABLE 3.2 WATER, DRAINAGE, AND ELECTRIFICATION COVERAGE IN MEXICAN MUNICIPALITIES, 1990 AND 2000.....	80
TABLE 3.3. COVERAGE OF OTHER MUNICIPAL SERVICES IN 1995 AND 2000....	83
TABLE 3.4. OLS REGRESSIONS ON THE LOG-ODDS RATIO OF THE DRAINAGE COVERAGE RATE .....	91
TABLE 3.5. OLS REGRESSIONS ON THE LOG-ODDS RATIO OF THE WATER COVERAGE RATE.....	92
TABLE 3.6. OLS REGRESSIONS ON THE LOG-ODDS RATIO OF THE ELECTRIFICATION COVERAGE RATE.....	93
TABLE 3.7. REGRESSION RESULTS ON FOUR INDICATORS OF LOCAL INSTITUTIONAL CAPACITY.....	103
TABLE 4.1. GLS FIXED-EFFECTS AND RANDOM-EFFECTS REGRESSIONS ON PUBLIC WORKS AND ADMINISTRATIVE EXPENDITURE PER CAPITA, 1990-2001.....	127
TABLE 4.2. GLS RANDOM-EFFECTS REGRESSIONS ON LOCALLY- GENERATED REVENUES PER CAPITA, 1990-2001.....	141
TABLE 4.3. GLS RANDOM-EFFECTS REGRESSIONS ON LOCALLY- GENERATED REVENUES PER CAPITA BY LEVELS OF ELECTORAL COMPETITION, 1990-2001.....	142
TABLE 5.1. DISTRIBUTION OF MUNICIPAL PRESIDENCIES ACROSS PARTIES IN THE ESTADO DE MÉXICO, 1990-2003.....	157
TABLE 5.2. CHARACTERISTICS SUMMARY FOR THE CASES OF STUDY.....	172
TABLE 5.3. WEIGHTED LEAST SQUARES REGRESSION ON THE PROPORTION OF FISM FUNDS ALLOCATED BY FIVE MUNICIPAL GOVERNMENTS ACROSS THEIR LOCALITIES IN 2004.....	201
TABLE A.1. DISTRIBUTION OF MUNICIPAL PRESIDENCIES ACROSS PARTIES IN MEXICO, BY STATE AND TERMS OF OFFICE.....	231

TABLE B.1. DISTRIBUTION OF STATE GOVERNORSHIPS ACROSS PARTIES IN MEXICO, BY TERMS OF OFFICE.....	236
TABLE C.1. DEFINITION AND CALCULATION OF EACH VARIABLE AND DATA SOURCES.....	240
TABLE D.1. DESCRIPTIVE STATISTICS OF THE VARIABLES.....	244
TABLE E.1. FREQUENCY DISTRIBUTION OF THE SURVEY ITEM: “WHICH OF THE FOLLOWING REGULATION CODES EXISTS IN THE MUNICIPALITY?” .....	249
TABLE E.2. FREQUENCY DISTRIBUTION OF THE SURVEY ITEM: “WHAT WAS THE HIGHEST LEVEL OF SCHOOLING THAT THE FOLLOWING OFFICIALS ATTAINED?” .....	251
TABLE E.3. FREQUENCY DISTRIBUTION OF THE SURVEY ITEMS: “DOES THE MUNICIPALITY HAVE A PERSONNEL MANAGEMENT DEPARTMENT?” AND “WHAT ARE THE TASKS THAT THE PERSONNEL MANAGEMENT DEPARTMENT CARRIES OUT?” .....	256

## List of Figures

FIGURE 3.1. ELECTORAL STRENGTH OF PARTIES IN MUNICIPAL ELECTIONS IN MEXICO, 1990-2001 .....	67
FIGURE 3.2. PERCENTAGE OF THE MEXICAN POPULATION LIVING IN A MUNICIPALITY GOVERNED BY A PARTY OTHER THAN THE PRI.....	67
FIGURE 3.3. EVOLUTION OF ELECTORAL COMPETITION AND VOTER TURNOUT IN MUNICIPAL ELECTIONS, 1990-2001.....	71
FIGURE 3.4. MARGIN OF VICTORY IN MUNICIPAL ELECTIONS, BY LEVEL OF SOCIOECONOMIC DEPRIVATION, 1990-2001.....	72
FIGURE 3.5. VOTER TURNOUT RATES IN MUNICIPAL ELECTIONS, BY LEVEL OF SOCIOECONOMIC DEPRIVATION 1990-2001.....	74
FIGURE 3.6. STYLIZED REPRESENTATION OF A NON-LINEAR SERVICE COVERAGE FUNCTION.....	89
FIGURE 5.1. EVOLUTION OF ELECTORAL COMPETITION IN MUNICIPALITIES OF ESTADO DE MÉXICO, 1990-2003.....	156



## **Chapter 1**

### **Introduction: Analyzing the Performance of Local Governments in Mexico**

#### **1.1. INTRODUCTION**

In 1983 the Mexican constitution was amended to strengthen the political and administrative autonomy of municipal governments.<sup>1</sup> Local governments were assigned important expenditure, taxing, and regulatory responsibilities. Twenty years after assuming these new functions formally, the performance of local governments varies considerably across the country. Consider the case of sanitary sewerage systems, one of their principal areas of responsibility since the 1983 reform. Although the average rate of drainage coverage in Mexico increased from 33 percent to 52 percent between 1990 and 2000, almost fifty percent of all municipal governments in the country failed to give access to the service to at least half of their residents in 2000.<sup>2</sup> But differences across local governments are not restricted to the provision of basic services, but also to other public policy areas: a significant number of municipal governments do not enforce their authority to collect local taxes, depend almost entirely from the financial and organizational resources provided by the federal and state governments, and the operation of their public administrations fails to meet minimum legal and technical standards. In contrast, other municipalities have adopted innovative methods of government: they promote the participation of society in designing and implementing policies, employ a

---

<sup>1</sup> I will use the terms “municipal government” and “local government” interchangeably.

<sup>2</sup> These figures come from the Mexican population censuses carried out in 1990 and 2000 by INEGI. These data are discussed with greater detail in chapter 3.

variety of instruments for the delivery of public services, and have modernized the operations of their public administrations. What explains the large differences in government performance at the local level in Mexico? Do structural socioeconomic factors account entirely for those differences or are there other political and institutional variables affecting the incentives of decision-makers to improve local governance? This dissertation develops a set of empirical models to provide an answer to these questions using data from most municipalities in Mexico (over 2,400) for the 1990-2001 period.<sup>3</sup>

In this dissertation I investigate how much of the variations in local government performance can be explained by the changing political environment at the state and municipal levels in Mexico. Since the 1980s, local governments started to emerge as an important arena of electoral competition in the country, allowing opposition parties, for the first time in the post-revolutionary period, to defeat the hegemonic *Partido Revolucionario Institucional* (the PRI) in state and municipal elections.<sup>4</sup> The increase in party competition and alternation at the local level has been identified as an important source of local governance innovation, given that the new administrations were eager to convince the electorate that they represented a genuine departure from the traditional PRI governments, which encouraged them to change the prevailing styles in policy formulation and implementation.<sup>5</sup> An unanswered question is, nevertheless, to what extent the higher level of competitiveness in local elections has permeated the decision-making styles of local governments throughout the country, no matter what are their party origins. The rationale behind this proposition has to do with the new role that electoral constituencies have acquired in terms of their power to punish ineffective leaders through

---

<sup>3</sup> The Federal District (*Distrito Federal*) will not be included in the analysis, given that its legal framework is different to the rest of the states in the country.

<sup>4</sup> The other two most important national parties in Mexico are the *Partido Acción Nacional* (PAN) and the *Partido de la Revolución Democrática* (PRD).

<sup>5</sup> See, for example, Rodríguez and Ward (1992, 1994, 1995) and Ward (1998).

the use of suffrage. In other words, electoral competition might have changed the rules of the political game in the local arena, in such a way that local policymakers –regardless of their party affiliations- find it in their best interest to improve the provision of public goods.

The ability of the local democratic process to induce improvements in the performance of local governments might not only derive from the existence of competitive elections, but also from the fact that a democratic setting provides citizens with the opportunity to exert a more direct influence on their local authorities using participatory methods. Therefore, this dissertation will also investigate to what extent variations in local government performance can be explained by differences in citizen participation.

The research approach adopted in this dissertation draws insights from different explanatory frameworks trying to understand the causes of good governance. From electoral accountability theories, such as those proposed by Key (1966), Fiorina (1981), and Mayhew (1974), it brings into play the assumption that voters have the ability to influence the behavior of politicians by rewarding or punishing them in the electoral arena. In other words, that competitive elections serve as an effective mechanism to induce government officials to be more responsive to the preferences of their constituencies. From collective action and social capital theories, such as Putnam (1993) and Ostrom (1990), the dissertation incorporates the proposition that social cooperation is an essential ingredient for a successful institutional performance, given their assumption that social norms help people solve collective action dilemmas. Besides investigating the role of electoral competition in improving government performance, this research will also address social participation as a potential explanatory variable. Finally, my study draws insights from recent developments in fiscal decentralization research (for example

Prud'homme, 1995; Tanzi, 1995; Bird and Vaillancourt, 1998), which emphasizes that the only devolution of decision-making authority to lower levels of government does not assure that the performance of these levels will inevitably improve, given the substantial information asymmetries characterizing the relationship between central and local authorities, and the possibility that local institutions might not be effective enough to hold sub-national politicians accountable for their decisions. In the context of this dissertation, those claims imply that we should not expect that the 1983 constitutional reform automatically improved the performance of municipal governments in Mexico, since many other factors (mainly political and institutional) could have also explained the ability of decentralization to generate socially desirable outcomes. My research analyzes how the interplay between policy decentralization and the more contested electoral environment in the country have transformed the incentives of local policymakers to improve the performance of municipal governments.

In sum, this dissertation adopts a pluralistic theoretical approach based on electoral theories of governmental accountability as well as on fiscal decentralization arguments, with the aim of investigating how the interaction between those two academic perspectives help us understanding the causes of good local government performance in Mexico.

## **1.2. THE PROCESS OF DEMOCRATIZATION IN MEXICO**

Constitutionally, Mexico is a federal republic comprised by 31 states and a Federal District, with powers separated into independent executive, legislative, and judicial branches. In reality, the Mexican presidency has historically been the dominant institution, enjoying a number of “metaconstitutional” powers (Garrido, 1989). Before

the PRI was defeated in the presidential elections of 2000, for the first time in history, the Mexican president used to be the principal arbitrator of the political system. Acting as the *de facto* leader of his own party, the PRI, the president had the power to select the candidate that would compete for the presidency in the next election, which in the absence of real electoral competition, meant that he was able to appoint his successor. In addition, the Mexican president had the power to appoint the governors in all the states of the republic, the deputies and senators at the national congress, and the judges of the Supreme Court.<sup>6</sup> The concentration of all these informal powers in the Mexican presidency and the non-competitive nature of elections at all levels of government implied that the federal arrangement was extremely centralized. Since the remaining political posts in the country (local legislatures and municipal presidencies) were also monopolized by the PRI, the career of every politician holding an elected position depended on their loyalty to the dominant party and to the president of Mexico, which evidently eroded the political autonomy of local and sub-national governments.

The Mexican political system started to undergo important institutional changes since the seventies, allowing opposition parties to obtain, progressively, more political positions at the national congress, state legislatures, municipal presidencies, and state governments.<sup>7</sup> One of the most significant reforms was launched in 1977, when the national constitution was amended to increase the total number of seats in the Chamber of

---

<sup>6</sup> This characterization better describes the functioning of the Mexican political system between the years 1929 to 1994, that is, from the year when president Plutarco Elías Calles organized the *Partido Nacional Revolucionario* (the PNR, which constitutes the first antecedent of the PRI), until the presidency of Ernesto Zedillo (1994-2000). It is debatable whether president Zedillo was fully able -and wished- to exert the traditional mechanisms of political control during the years of his administration, since electoral competition was already under way, forcing the PRI and the government to negotiate any proposed legislation with opposition parties.

<sup>7</sup> Some authors, for example Bruhn (1999), Lujambio (2000), and Rodríguez (1998), argue that these political reforms had the objective to strengthen the PRI by promoting a more credible opposition, but within strict limits, in order to recover some of the legitimacy the PRI and the government lost as a result of the decline in voter participation during the presidential election of 1997.

Deputies from 237 to 400. In addition, the number of deputies assigned by proportional representation was increased from 41 to 100, thereby allowing a greater presence of opposition parties (Lujambio, 2000, 33-41). The next reform to the system of representation in the Chamber of Deputies was made in 1986, where the total number of deputies was increased to 500, of which 200 were assigned by proportional representation. The main consequence of these changes over legislative policymaking is that, after 1988, the PRI has had to negotiate with other parties the approval of any presidential initiative.

The presidential election of 1988 has been considered a one of the decisive moments in the democratization of the country, when Cuauhtémoc Cárdenas (a former PRIísta), in conjunction with other prominent members of the PRI, left the party in 1986, after he was denied the opportunity to obtain the nomination for the presidential election.<sup>8</sup> Cárdenas formed an extensive coalition with left-wing parties to compete for the presidency against Carlos Salinas. It was believed that Cárdenas obtained the majority of votes in that election, but that Salinas was declared the winning candidate as a result of a massive electoral fraud. Nonetheless, the PRI lost its supermajority in the congress, which forced it to negotiate with other parties (mainly with the PAN) the several constitutional reforms launched during the Salinas administration. Also, the coalition that backed the candidacy of Cárdenas in 1988 gave birth to a new party in 1989, the *Partido de la Revolución Democrática* (PRD), which has become one of the three principal political forces in the country. Another important outcome resulting from the constitutional changes to the system of representation in the Chamber of Deputies took place in 1997, when the PRI lost, for the first time in history, the absolute majority in the Chamber of Deputies, inaugurating a new period of divided government in the country.

---

<sup>8</sup> This influential election has been widely analyzed by different scholars, such as Molinar (1991a) and Cornelius, Gentleman, and Smith (1989).

The political opening in Mexico also reached local and sub-national governments. In 1989, for the first time, the PAN defeated the PRI in the gubernatorial election of Baja California. Since then, several states have undergone the arrival of opposition parties to power. From 1989 to 2001, 15 states have been governed by a political party different than the PRI. Something similar has happened in the case of municipal governments. Between 1979 and 1987, the PRI controlled virtually every municipality in the country, while opposition parties had only won 135 (Lujambio, 2000: 77-100). However, since 1988 the number of opposition victories at the level of municipalities has increased dramatically: in 2001, 594 municipalities (out of the 2,429 that Mexico had in that year) are governed by a party different than the PRI. Together, these 549 municipalities comprise more than 50 percent of the total population of the country, excluding the capital city, since the DF does not have municipalities (see chapter 3 for a more detailed description of local electoral competition). In consequence, the process of democratization in Mexico can be regarded as a bottom-up phenomenon, where opposition parties started winning municipal and state elections, until the PAN finally won the national government in 2000.

A remarkable feature of the Mexican democratization process is its unevenness across regions. Despite the fact that the country, as a whole, has improved the competitiveness and transparency of its electoral institutions and processes during the last twenty years, there are still considerable differences across states and municipalities: some of them exhibit substantial levels of electoral contestation, have undergone alternation of parties on at least one occasion, and the final electoral result is broadly acknowledged by the political players. In contrast, other states and municipalities in Mexico have never experienced alternation in office, the PRI still wins elections with ample margins of victory, there are frequent accusations of electoral fraud, the confidence

of citizens and political actors over electoral processes and institutions is relatively low, and local bosses still enjoy the power to control the electoral choices of the population by means of clientelism or other informal practices, including coercion.<sup>9</sup> Nevertheless, even these regions seem to be moving towards a more transparent and competitive electoral environment.

At the present time, it is undeniable that electoral competition has become a normal feature of Mexican politics at most levels, which many people regard as a very positive phenomenon because, under a democratic system, political power has to be shared out between different parties (i.e., power is restrained by effective checks and balances), and ordinary citizens have the ability to control, through their periodic use of suffrage, those who hold governmental authority. These important assumptions imply that under competitive elections, public officials should be more accountable to the citizens, since the latter have the ability to remove them from office. In other words, it appears that electoral democracy is not only a good thing by itself, but also a means by which the people can induce their governments to achieve better public policy outcomes. Is this a reasonable prediction? Are governments more likely to perform better under a more democratic setting? This dissertation will provide a test of this widespread proposition, focusing on the municipal level, which has acquired important policy responsibilities over the past twenty years, and constitutes the most direct link between Mexican citizens and their public authorities.

---

<sup>9</sup> The unevenness of the democratization process across regions in Mexico has been identified as one of the major threats to the consolidation of democracy in the country, since sub-national authoritarian enclaves continue to operate with relative impunity. In other words, it has been hypothesized that “the subnational political arena will be the principal source of inertia and resistance to democratization” (Cornelius, 1999, 11).



### 1.3. FEDERALISM AND DECENTRALIZATION IN MEXICO

Despite nominally being a federal republic, Mexico is a very centralized country. Based on the International Monetary Fund's *Government Finance Statistics*, the World Bank reports that in 1997 the total amount of sub-national expenditures in Mexico (which include both the state and the municipal levels) represented 29 percent of the total expenditures made by the Mexican public sector.<sup>10</sup> In contrast, other federal countries ranked higher in this indicator in the same year, for example Brazil (42.8 percent), Argentina (41.33 percent), and the USA (48.6 percent). The high degree of fiscal centralization in Mexico can also be observed from the perspective of subnational revenues, which represented only 22.9 percent of the total public revenues in the country in 1997, while in Brazil this indicator was 33.8 percent, 39.8 percent in Argentina, and 41.7 in the USA.

The marked fiscal centralization of the country resulted from a gradual process started in the 1940s, when the federal government made its first attempts to unify the different state tax systems into a coherent national fiscal arrangement. But the constituting elements that gave birth to the current fiscal arrangement in Mexico were established in the 1980s, with the creation of the Value Added Tax. With the aim of improving the effectiveness and efficiency of the tax system, the new fiscal pact asked the states to voluntarily cede the application of some indirect taxes, thereby avoiding the problem of double taxation. In return, the states started receiving revenue-sharing transfers from the federal government, whose distribution was determined through a

---

<sup>10</sup> These data come from the World Bank's Fiscal Decentralization Indicators, which can be accessed at [www1.worldbank.org/publicsector/decentralization/fiscalindicators.htm](http://www1.worldbank.org/publicsector/decentralization/fiscalindicators.htm). The dataset, however, is unable to identify expenditure autonomy. Expenditures that are mandated by the central government appear as sub-national expenditures, even though subnational governments may have no autonomy in these spending decisions.

formula based on the states' population size and their relative fiscal effort. As a result of the new system adopted in the 1980s, the federal government was entitled to levy the most important taxes in the country, such as the income tax, the value-added tax, and special taxes on production and selected services. Since its creation, the revenue-share system has evolved in different aspects, but it has become the principal source of funding for states and municipalities. Also, the distribution formulas have tended to be less responsive to taxing effort, while more related to demographic factors.<sup>11</sup>

In sum, the centralization of the fiscal system in Mexico resulted from the pact between national elites and sub-national political actors (the governors), in which the latter were willing to cede their taxing authority to the federal executive, obtaining in return the proceeds from national taxation in the form of revenue-sharing transfers. The fact that no state governor abandoned the original pact was largely explained by the lack of political competition characterizing the 1929-1988 period in Mexico, and the extraordinary influence of the Mexican president over the political careers of any elected post in the country.<sup>12</sup> In other words, although the centralization of the tax system implied an increased dependency of states on the transfers from the center, the governors did not have incentives to leave the pact, since that would have meant the end of their political careers.<sup>13</sup> As Ward and Rodríguez (1999a and 1999b) have noted, in order to make their political careers advance, governors from the PRI tended to carry out the wills of the Mexican president, acting as his political appointees. In exchange for their loyalty to the president, governors were rewarded with political careers at the national level. "As

---

<sup>11</sup> For a review of the historical process by which Mexico centralized its fiscal system see Courchene, Díaz-Cayeros, and Webb (2000).

<sup>12</sup> Another reason that explains why every state was motivated to join the new fiscal pact was that they would benefit from the proceeds from the oil boom of the 1980s, since oil revenues were a fundamental part of the revenue-sharing agreement.

<sup>13</sup> This interpretation is supported by Alberto Díaz-Cayeros, who claims that tax centralization in Mexico was a coordination dilemma that was overcome through the control of gubernatorial nominations by the president within the PRI, thereby annulling Mexican federalism. See Díaz-Cayeros (1997).

long as a governor could keep his or her state calm avoiding any social unrest, and increasingly, keep it in line electorally (i.e., PRI supporting), then he or she would expect not to be overly bothered by interference from Mexico City. But if a governor was not providing adept at retaining support for the PRI or fell foul of the president for some reason, then they were likely to be replaced” (Ward and Rodríguez, 1999a: 676).

The arrival of electoral competition at the subnational levels of government at the end of the 1980s, as the previous section discussed, started to modify the incentives of state and local leaders to accept the terms of the fiscal pact. The first victories of opposition parties in Mexican states implied that the political future of the new leaders were not tied up anymore to the president nor to the PRI, which gave them significant autonomy as well as incentives to be more responsive to local constituencies, rather than to the central government. For example, the governor of Baja California, Ernesto Ruffo, who won under the banner of the PAN in 1989, was the first to openly question the system of revenue-sharing transfers, something that would had been unimaginable from a governor of the PRI. Now that electoral competition and party alternation have become normal features of Mexican politics at all levels, the current system of fiscal intergovernmental relations does not seem operational to fit the increasing needs of policymaking autonomy of states and municipalities. In fact, there is a broad consensus among central and subnational authorities that Mexican fiscal federalism requires big changes, allowing states and municipalities to recover their taxing authority in order to fulfill the demands of local constituencies. In the concluding part of this dissertation, I will revisit this discussion.

While Mexican fiscal revenues continue to be extremely centralized, there have been several attempts to decentralize the operation of public expenditures to the states and municipalities over the past two decades. Probably, the first serious decentralization

effort took place during the de la Madrid administration (1982-1988), which seek to rationalize the federal administrative apparatus by transferring new policy responsibilities to lower levels of government.<sup>14</sup> Article 115 of the national constitution was amended to make municipalities autonomous legal entities. The reform also specified the procedures that should be followed to remove municipal governments from office, reducing the discretionary power of state governors. It required all state legislations to adopt a system of proportional representation for the integration of town councils (*cabildos*) in the municipalities, in order to increase the political plurality at the local levels. Finally, the reform assigned municipal governments the responsibility to provide a set of basic local services, as well as the authority to administer and enjoy the proceeds from property taxes, user fees, and other sources of income.<sup>15</sup> Despite these important reforms, the marked heterogeneity of Mexican municipalities (especially in terms of their revenue-raising capacity) prevented them from complying with the goals established by the constitutional reform for the delivery of basic public services. Indeed, the failure of the de la Madrid reform to explicitly recognize the diversity of Mexico's municipalities has been pointed out as one of its principal drawbacks.<sup>16</sup> The decentralization policies launched during the de la Madrid administration did not only focus on municipalities, but also on the states. For example, the provision of health services for the *población abierta* (i.e., for people who are not entitled to receive medical services from the social security system) was partially decentralized to a number of states. The results of the health decentralization policy were, however, very limited, since the federal government

---

<sup>14</sup> It is probably inaccurate to label these policies with the term “decentralization”, given that the federal government retained considerable decision-making power over the allocation of resources and the setting of policy goals. Instead, they should be regarded as “deconcentration” policies.

<sup>15</sup> For details of the 1983 reform see Rodríguez (1997) and Cabrero-Mendoza (1998).

<sup>16</sup> See, for example, Cabrero-Mendoza and Martínez-Vazquez (2000).

retained much decision-making authority.<sup>17</sup> During the Salinas administration (1988-1994), decentralization seemed not to be a central concern, except for basic education, which started to be transferred to the state governments in 1992, when the federal government, the states, and the national union of workers in education signed up a National Agreement to Modernize Basic Education.<sup>18</sup> This reform was, nevertheless, extremely limited, since the federal government remained in charge of all normative and policymaking functions (i.e., setting of standards, curriculum development, teachers training, and other important functions), and the resources transferred to the states had a very strict earmarking. Regarding municipal governments, they did not gain any significant decision-making authority over the allocation of funds for basic infrastructure, especially under the *Programa Nacional de Solidaridad* (PRONASOL) launched by the Salinas administration, since social infrastructure projects were mainly determined by federal agencies in conjunction with community organizations, but without the participation of municipal authorities. The latest important decentralization policy was launched during the Zedillo government (1994-2000), when the PRI lost the absolute majority at the Chamber of Deputies in 1997. The congress created a new federal budget item called *Ramo 33* (Item 33), which comprised resources, earmarked for the financing of primary education, health services, public safety, and social infrastructure, transferred to state and municipal governments. Of these, municipalities started to receive funds for social infrastructure development that were formerly under the control of federal agencies. Under the new system, only state legislatures are in charge of supervising its use.<sup>19</sup>

---

<sup>17</sup> For more information on the decentralization of health services in Mexico see Cardozo (1993), Flamand (1997), and Moreno-Jaimes (2002).

<sup>18</sup> For details of the decentralization of basic education see Ward and Rodríguez (1999b) and Ornelas (1998).

<sup>19</sup> See Chapter 4 for a more detailed discussion and analysis of the decentralization of *Ramo 33*.

In sum, the process of policy decentralization in Mexico has been mostly circumscribed to the expenditure side, but not to the public revenue system, which continues under the centralized control of the federal government. As a consequence of this discrepancy between expenditure and tax assignments, decentralization has entailed the creation of transfer fund programs to prevent the emergence of serious vertical imbalances. Also, decentralization policies have been based, predominantly, on a top-down approach, with the federal government initiating the process, assigning responsibilities to state and municipal governments, and providing them with the funds to fulfill their new policy assignments.<sup>20</sup> This style of policy formulation was unproblematic under conditions of non-competitive elections and party monopolization, as it occurred in Mexico until the mid-eighties. However, under the present conditions of intense electoral competition, alternation of parties, and vertically divided governments (i.e., differences in party membership between national, state, and municipal authorities), the top-down policy approach seems to have reached its limits, since locally elected officials arriving into power by means of competitive elections are more concerned with satisfying the needs of local constituencies, rather than the policy priorities of central authorities. Evidently, as long as the collection of most tax revenues continues under the control of the federal government, the scope for a more autonomous subnational policymaking will remain limited. However, it is important to know whether the increased competitiveness of local elections are inducing municipal governments (still within the restrictions created by the centralization of public revenues) to improve their performance and fulfill the obligations that the process of policy decentralization has established.

---

<sup>20</sup> Rodríguez (1997) has claimed that the variety of fiscal, administrative, and political decentralization policies adopted by the federal government over the last two decades has, in fact, led to more centralization, as state and municipal governments have remained subordinate to the central level.

#### 1.4. SCOPE AND DEFINITIONS

Providing an operational definition of the concept of government performance is a complex issue. The notion of “good government” constitutes a normative question, which is not free from ideological considerations or value judgments. Also, the concept is multidimensional, given that governments carry out very diverse activities, which range from the classical *laissez-faire* function of protecting the property rights of citizens, to other forms of interventions, such as providing welfare benefits to low-income groups or managing public services. Furthermore, given its multidimensional character, it might be possible to find some governments that are successful in the provision of a specific service but ineffective in other areas. Thus, a single indicator by itself cannot account for the overall performance of a government.<sup>21</sup>

In this dissertation I will use a number of performance indicators that the empirical literature on decentralization and governance commonly use, and for which data are available at the level of municipalities in Mexico. Although they are not all-inclusive, the indicators encompass activities over which local governments have either a formal responsibility, or at least a reasonable degree of control. They are grouped into four broad dimensions: 1) the coverage of municipal public services; 2) the allocation of local budgets, namely the relative importance of public works investments in comparison with the administrative expenses of the municipal government; 3) the enforcement of local taxation (i.e., the collection of local taxes and fees); 4) the development of

---

<sup>21</sup> In her review of the literature addressing the concept of government performance, Tavits (2002) claims that each view is to some extent reductionist, since they fail to recognize the multidimensionality of the concept. She proposes that government performance has two equally important though distinct attributes: administrative effectiveness and policy activism.

managerial capacities, such as the modernization of the local bureaucracy. Each of these dimensions will be analyzed separately throughout the chapters of this dissertation.

The first performance dimension, the coverage of public services, constitutes a clear-cut measure of local government outcomes: what the average citizen can expect, as a minimum, from its authorities. In the case of Mexico, the municipal provision of certain services is in fact a constitutional mandate, since article 115 of the Mexican constitution assigns municipal governments the responsibility of providing by themselves, or in collaboration with other governments, potable water, drainage and sewage systems, public lighting, trash collection, public markets, cemeteries, public safety, slaughterhouses, local roads, public parks, and road safety. However, reliable information exists only for two of the services listed: water and drainage. The data source of these two services are the Mexican population censuses carried out in 1990 and 2000, which contain data on water and drainage coverage, disaggregated at the municipality level, covering the totality of *municipios* in the country (2427, as reported by the 2000 census). My analysis of public service provision will focus on the levels of coverage of water, drainage, and electrification in 2000, controlling for their coverage levels at the beginning of the period (1990). Although electrification is not a constitutional responsibility of municipalities, it is included in the analysis given that local governments frequently bargain with higher governmental levels to bring that service to their citizens.

The second performance dimension addressed in this research is the allocation of local budgets, namely the importance of public works expenditures (i.e. the budget spent in developing basic local infrastructure) *vis-à-vis* current administrative expenditures. Developing basic infrastructure is one of the most urgent expenditure priorities for Mexican municipalities, since it is an essential condition for local economic progress.



Disparities in the availability of basic infrastructure are still huge across the country, despite the fact that the federal government has transferred considerable amounts of funds to local governments with the purpose of expanding the provision of water, rural electrification, street pavement, and other types of infrastructure. In contrast, current administrative expenditures represent a high proportion of local budgets. It should be noted that municipal governments do not have the formal responsibility to provide some of the most labor-intensive public services, such as health care and education (they are provided by the federal and state governments), which would justify large current expenses. Administrative expenditures mainly comprise the municipal payroll, which for many years has been a useful source of traditional patronage rewarding local political supporters. Therefore, we can think of a locally elected official as a political player allocating budgetary resources among a variety of policy goals. At one of the extremes of the policy spectrum, the local politician would dedicate most of the budget to create developmental public goods with high social returns for the community. At the other, he or she would merely use administrative expenditures to increase the local bureaucracy as a means to reward political supporters with public jobs and other “private” benefits.<sup>22</sup>

The third performance dimension is the taxing effort of municipalities. Since 1983, the national constitution allows municipal governments to collect and enjoy the proceeds from the property tax (*impuesto predial*) and user fees, despite the fact that they do not have authority to change tax rates and bases (these are powers of state legislatures). Consequently, variations in local tax revenues across municipalities reflect not only differentials in economic prosperity, but also the relative willingness and administrative capacity of local officials to enforce the collection of local taxes. These

---

<sup>22</sup> Given that the available data on local spending do not allow identifying exactly what are the specific uses of municipal budgets, this dissertation will only look at the two extremes of the budgetary spectrum: public works and administrative expenses.

tax revenues represent a very small proportion of municipal funds, again because they owe most of their revenue base to federal earmarked and unconditional transfers. In other words, municipal governments are heavily dependent on intergovernmental funds. Thus, increases in tax revenues (after controlling for local wealth indicators) should be regarded as improvements in local performance, since they constitute the only real alternative of municipalities to further their financial autonomy.

The fourth dimension of performance used in this research is what I call “local institutional capacity”, which reflects the extent to which municipal governments develop their internal bureaucratic systems to better respond to their policy responsibilities. Municipal governments in Mexico have been characterized as lacking adequate technical and managerial skills, a fact that can be explained by a number of factors, including the strong tradition of centralist decision-making in the country, restrictions on consecutive reelection, and the shortness in the term of office. The weak levels of administrative professionalization are reflected in the failure of many municipal governments to modernize their internal control systems, the low levels of formal instruction of local officials, and persistent personalism in bureaucratic recruitment. However, there are interesting variations in this dimension across municipal governments that provide an opportunity for empirical causal analysis. Based on data from two surveys, my dissertation develops a set of institutional capacity indicators measuring the propensity of municipal governments to create impersonal rules to control their internal operations, the levels of formal education of top officials, and the degree of professionalization of their civil service systems.

## **1.5. ARGUMENTS AND HYPOTHESES**

### **1.5.1 The roles of electoral competition and party alternation**

One of the main premises of classical theories of fiscal federalism is that local governments can be more responsive to the policy preferences of their constituents than are central authorities, since the former have better information on local priorities, as well as a better understanding of the production functions of local public goods.<sup>23</sup> Given their informational advantages, local governments can be expected to be more efficient in the provision of public goods and services, an argument that has been widely used to justify the decentralization of taxing and spending responsibilities toward local and sub-national governments (Tiebout, 1956; Oates, 1972). However, the theory asserts that an efficient allocation of public resources requires something more than just the geographical proximity of decision-makers: local authorities should also face a credible threat from local residents to move to alternative jurisdictions. Therefore, for classical fiscal decentralization models, inter-jurisdictional competition was envisaged as the key element promoting economic efficiency, but they did not pay attention to the potential role that electoral competition could play in improving better governmental outcomes. In other words, local taxpayers do not only have the capacity to move to other jurisdictions that better fit their policy preferences, but also to use their vote to remove incumbent officials.<sup>24</sup> This dissertation will take a closer look at the role of electoral competition in explaining improvements in performance across municipal governments, given that this

---

<sup>23</sup> Chapter 2 provides a more comprehensive review of this argument.

<sup>24</sup> The ability of electoral competition to produce governmental accountability has been a persistent issue in democratic theory. For example, in rational choice interpretations of democracy, such as the works by Downs (1957) or Mayhew (1974), the political system is assumed to work as a private market in which electoral competition generates policy outputs preferred by the majority of voters.

variable has significantly increased in municipal elections, and also because there are considerable differences across municipalities in their levels of electoral competitiveness.

The argument I will investigate in this research can be summarized as follows. As it was pointed out in a previous section, at the end of the 1980s, state and municipal governments became an important arena of electoral competition in Mexico. Before then, the careers of local politicians were absolutely dependent on their links to top leaders of the ruling party, the PRI. As a result, local constituencies played a minor role in the nomination of state and municipal candidates. However, the emergence and growth of electoral competition at the state and local levels seems to have produced important changes in the motivations of local political leaders, whose careers started to depend more on electoral constituencies than in the past.<sup>25</sup> While personal links to parties continue to be important factors for the political success of local leaders, the perception of citizens about the performance of municipal presidents can be expected to be important for their political future. Even though the national constitution forbids local mayors to be reelected for consecutive terms, their immediate political future might depend on whether their political party remains in office in the next administration, since they can be nominated for higher political posts at the state and even the federal levels. In summary, there are reasons to believe that assuring the victory of their own parties in subsequent electoral contests may provide positive rewards to incumbent leaders. One of the factors affecting the vote of citizens, according to the theory of retrospective voting, is their perception of the performance of the current government: when that perception is

---

<sup>25</sup> Several studies on Mexican politics contend that the emergence of electoral competition has changed the incentives of parties to select their candidates. For example, Langston (2001) concludes that the competitiveness of the electoral environment forced parties (particularly the PRI) to decentralize their mechanism for candidate selection. A recent book by Caroline Beer (2003) supports the argument that the rise in electoral competition has produced more active, professional, and autonomous local legislatures, more participatory methods of candidate selection, and more decentralized decision-making processes.

favorable, voters will be willing to reelect that party for the next period.<sup>26</sup> An implication of that argument is that incumbent leaders, being aware that their current performance will be taken into account by citizens in their future vote, will tend to improve the quality of their policies in order to increase the probability of their parties staying in power. In other words, improving government performance can be understood as a rational strategy of self-interested politicians who attempt to maximize their own political careers.

It is important to note that the validity of the argument outlined above strongly depends on the political environment under which local leaders operate. Specifically, the hypothesized situation is likely to occur only when political parties face a credible threat of being thrown out of office in subsequent elections. In an uncontested political environment where incumbent leaders enjoy large margins of victory, or where the possibility of party alternation is too small (as it has occurred in Mexican municipalities during the years of PRI hegemony), local policymakers might be unmotivated to improve their performance. Consequently, from the previous arguments we can derive two key hypotheses that can be tested empirically, given the diversity that characterizes the political landscape of local governments in Mexico today:

*Hypothesis 1.* Electoral competition causes improvements in the performance of local governments.

*Hypothesis 2.* The alternation of parties in municipal elections causes improvements in the performance of local governments.

---

<sup>26</sup> Certainly, citizens' retrospective evaluation is only one element in understanding their voting behavior. Examples of studies supporting the hypothesis that voters reward positive prior performance are Kramer (1971), Norpoth (1996), and Fiorina (1981). Regarding the Mexican case, Mizrahi (1999) argues that the defeat of the PAN in the gubernatorial election in Chihuahua in 1998 was explained, to some extent, by the negative perception voters had on the performance of the incumbent PANista government, particularly concerning the issue of public safety.

### **1.5.2. The influence of social participation**

In the last decade, the role of social participation in the design and implementation of public policy became a principal concern among scholars, practitioners and non-governmental organizations. Advocates of the “participatory approach” claim that involving community in decision-making produces better policy outcomes and it also provides a basis for the sustainability of programs. For example, in a recent study of local government innovations in Latin America, Campbell and Fuhr assert that “the more participatory and inclusive the design of participatory processes, the more likely the new rules will be accepted by participating actors, and better the chances for repeated interactions” (Campbell and Fuhr, 2004: 447). In addition, social participation is expected to reduce monitoring and enforcement costs for governments, and to improve the accountability of public officials.<sup>27</sup> This implies that electoral competition is not the only force driving improvements in local government performance. Better governmental outcomes can also result from informed and well-organized citizens capable to press their authorities to improve the provision of public goods. The vote does not constitute the only mechanism through which citizens hold their authorities accountable for their actions, since they can also form pressure groups to lobby for more and better services, and they can even meet informally with public officials to express their demands. Political parties can also play a role, either by acting as the channels through which people articulate their requests, or by directly mobilizing people to press

---

<sup>27</sup> The academic literature on social participation is so extensive that it would be almost impossible to cite it exhaustively. Some interesting empirical works on the topic are Putnam (1993), Tandler (1997), Fizbein (1997), and Peterson (1997). A widely cited theoretical work on democracy and participation is Pateman (1970).

incumbent authorities. In short, better governmental outcomes might not be only attributable to “supply” influences (i.e. the deliberate attempt of politicians to guard themselves against the possibility of being thrown out of power, by improving their provision of public goods), but also to the “demand” for good government (i.e. the capacity of the electorate to get involved in the local policymaking process by mobilizing, lobbying local officials, and promoting the cooperation of other residents to obtain more and better services from their governments).

This dissertation attempts to evaluate the claim that social participation improves the performance of local governments in Mexico. Unfortunately, information on the several methods people can employ to participate in local policymaking (for example through NGOs, social protests, lobbying, newspaper reading, etc.) is not available at the level of municipalities. For the purpose of this research, I will use voter turnout rates in local elections as a proxy for the degree of political involvement of citizens in public affairs. However, this variable should be interpreted with caution, since voter turnout might well indicate the strength of parties to mobilize people during an election, rather than the level of political awareness among citizens.<sup>28</sup> Nevertheless, it will allow us to analyze whether a highly mobilized electorate is a condition that improves or deteriorates the performance of local governments. Another variable that I will employ as a surrogate for citizen participation are literacy rates, since a better educated society might possess better organizational abilities to influence the responses of local officials.

*Hypothesis 3.* The involvement of citizens in local affairs improves the performance of local governments.

---

<sup>28</sup> In addition, the causal relationship between performance and voter participation might also work in the opposite direction: better performing governments might induce people to participate more. I thank Kenneth Greene for this observation.

### **1.5.3. Vertically divided governments (juxtaposition)**

The increasing levels of electoral competition that characterize both the municipal and the state levels of government in Mexico have produced the phenomenon of vertically divided governments or “juxtaposition”: some municipalities are governed by a party that is different than the party of the state governor.<sup>29</sup> The appearance of juxtaposition at all levels of government in Mexico might have important consequences on the performance of governments, although the relationship between juxtaposition and performance entails considerable complexities. For example, the distribution of intergovernmental resources across municipalities by state authorities might be influenced by political considerations, an outcome that is consistent with the predictions made by theories of distributive politics, such as the model proposed by Cox and McCubbins (1986). These authors argue that the optimal strategy of a risk-adverse politician will be to redistribute public resources primarily to their support groups in order to maintain existing political coalitions. Their proposition implies that a state politician (for example, a state governor in Mexico) will tend to spend more resources in municipalities where he or she enjoys a larger political support. In contrast, in municipalities controlled by opposition parties (i.e., in juxtaposed municipal government), the state governor might decide to spend less resources, or even withdraw funds. Given the strong dependency of municipalities on the financial resources of

---

<sup>29</sup> The phenomenon of ‘juxtaposed governments’ occurs “when a well defined territorial sub-national unit (such as a state or a municipality) is controlled by a party that is different from the party that controls the larger unit (such as the federation or the state)” (De Remes, 1998, 5).



higher levels of government, a reduction in intergovernmental funding can significantly erode the performance of local governments.<sup>30</sup>

On the other hand, there are studies that predict that the phenomenon of juxtaposition will encourage opposition governments to improve their performance. For example, drawing on William Riker's theory of federalism (Riker, 1964), Flamand argues in a recent study that an important condition for the federal bargain to be maintained is the existence of vertically divided governments and party competition. "Given partisan difference, national and subnational executives have fewer tools at their disposal to influence their counterparts at the other level and, second, the tenure in office of the leaders at either level is not secure in the presence of party competition" (Flamand, 2004, 5).<sup>31</sup> In other words, governmental juxtaposition can be regarded as an element promoting the levels of public policy autonomy among subnational and local governments. The previous proposition implies that opposition municipal governments will not passively accept the consequences of reduced state funding, since they have a strong incentive to satisfy the policy demands of local constituencies. Having emerged from competitive elections (vertically divided governments imply the existence of a competitive electoral system), and lacking political ties with state governors, the political careers of juxtaposed municipal presidents are closely linked to how voters evaluate their performance. In other words, local politicians are expected to demand greater policy autonomy when voters can hold them accountable for policy decisions. Therefore, they

---

<sup>30</sup> A good amount of research has addressed the problem of intergovernmental fund distribution in the Mexican case, which has been found to depend on political considerations. For example, Molinar and Weldon (1994) show that the distribution of *PRONASOL* funds during the Salinas administration, from the federal government to the states, was markedly influenced by the regional electoral strength of the PRI. The analysis of intergovernmental transfers for municipalities is, however, beyond the scope of this dissertation.

<sup>31</sup> In her doctoral dissertation, Flamand shows that vertically divided governments and electoral competition in Mexico have influenced the crafting of federalist policies in the national congress, the allocation of federal grants to the states, and the filing of constitutional controversies at the Supreme Court involving intergovernmental disputes.

will make every attempt to increase their levels of policy autonomy, which normally implies improving the collection of revenues coming from local sources, modernizing the administrative apparatus of the local government, and spending on areas that allow them to claim credit for their actions. Thus, *at the margin* (i.e., after controlling for the amount of transfers received from state or federal sources), we can expect that juxtaposed municipal governments will perform better than non-juxtaposed governments.

*Hypothesis 4:* Political juxtaposition at the municipal level causes improvements in the performance of local governments.

#### **1.5.4. Socioeconomic influences**

Besides the political motivations that might lead local decision-makers to improve their performance, there are structural factors influencing the quality of governance in Mexican municipalities. The most obvious and widely confirmed by studies of institutional performance (see for example Putnam, 1993) is the level of regional socioeconomic modernization. Wealthier and more modern regions provide a large amount of economic, technological and human resources that are essential for governments to accomplish their tasks. When the level of income and the value of property increase, local governments can extract greater revenues from citizens, hire better trained people for the public administration, or contract with more local private providers to deliver public services. Another reason to expect a positive relationship between socioeconomic development and government quality is that private investors might encourage local governments to improve (for example the quality of a local government might be a relevant factor in the location decisions of private firms).

However, testing a causal relationship between socioeconomic development and local government performance entails several complexities. One of them is that socioeconomic levels and local performance may have a simultaneous relationship: high socioeconomic levels might cause good government, but at the same time socioeconomic development might be the result, at least to some extent, of an effective and efficient local governance. Unraveling the endogenous relationship between socioeconomic welfare and government performance would introduce more complexities than the available data can support.<sup>32</sup> In light of this, my research will treat socioeconomic factors simply as exogenous control variables. Controlling for socioeconomic factors is also an essential condition to isolate the effects of our central theoretical variables, such as competition, alternation, and participation. Since socioeconomic development is closely related to political modernity (for example, electoral competition is normally higher in urban areas), and both are important determinants of government performance, failing to control for socioeconomic differences might create serious biases in our results. Therefore, throughout this dissertation different socioeconomic indicators will be used, depending on the specific issue under consideration.

## **1.6. DATA AND METHODOLOGY**

In order to empirically test each of the central hypotheses in this dissertation, I use a combination of statistical multivariate analyses and qualitative research methods. In the first case, I assembled a very large panel dataset that combines a variety of information, disaggregated at the level of municipalities, obtained from several official and non-

---

<sup>32</sup> For instance, in order to cope with the problem of endogeneity, the modeling would require the use of a good instrumental variable explaining variations in socioeconomic conditions, but exogenous to government performance. However, the available municipal-level data are not enough to adopt such an approach.

governmental sources. The dataset merges four different kinds of information: electoral, financial, sociodemographic, and administrative.<sup>33</sup> It covers practically every municipality in the country, excluding the 16 regional departments of the Federal District, and municipalities from Oaxaca state that are ruled under *usos y costumbres* (i.e. customary laws by which 412 indigenous municipalities of Oaxaca elect their authorities based on a civic-religious hierarchy and popular traditions, rather than through modern party systems).<sup>34</sup> Thus, the number of municipalities included in the analyses is around 2015. In addition to the statistical methods, I conducted three months of fieldwork in a set of municipalities in the Estado de México (the most populous and economically important state in the country), in order to flesh out some of the findings obtained through the quantitative analyses, and to generate additional insights on the mechanisms explaining local policymaking processes. The evidence was collected using semi-structured interviews with state and municipal officials, and from a focus group exercise with community leaders. The fieldwork focused on the formal and informal mechanisms through which the local policy agenda is defined, and on the relationship between municipal officials and state authorities, making a special emphasis on the allocation of funds for social infrastructure. From the findings obtained in the fieldwork, additional propositions on the spending choices of municipal governments were derived and tested using a new dataset based on locality-level data coming from a small sample of municipalities.

Given the nature of the research questions and the limitations imposed by the data availability, this dissertation uses different estimation methodologies. In some analyses (particularly those regarding local public finances), it was possible to adopt an

---

<sup>33</sup> A detailed description of the data can be found in appendices C and D.

<sup>34</sup> The system of *usos y costumbres* was legally established in the state electoral law of Oaxaca in 1995. The reason for excluding all these cases is that competition for public office does not go through a modern party system. A description of the system can be found in Velásquez (2000).

unbalanced panel-data approach, taking advantage of variations occurring both throughout time (12 years) and across municipalities (more than 2000). That is, the dataset consists of a combination of cross-sectional and time-series observations, yielding a sample size of around 24,000 observations.<sup>35</sup> This design considerably reduces potential biases arising from unobservable factors. However, in other analyses it was impossible to adopt such an approach (for example in the case of public service provision and institutional capacity), since data on municipal performance was only reported at two points in time. In this case, cross-sectional estimation techniques were used, but we should be aware that they only allow taking into account the variations taking place *between* municipalities, but not *within* municipalities. In other words, the causal relationships hypothesized in this dissertation are harder to test using cross-sectional data because we can never rule out the possibility that other unobservable factors could have been the real cause of the improvements in government performance. Each chapter describes in depth the specific modeling and data employed.

All electoral variables were constructed from a dataset compiled by the Mexican think-tank CIDAC (*Centro de Investigación para el Desarrollo*), which comprises publicly available information on the distribution of votes across parties in every municipal election taking place in Mexico since 1980.<sup>36</sup> Performance indicators regarding the provision of public services, as well as all sociodemographic control variables, were obtained from the two population censuses conducted by INEGI (Mexico's central statistical agency) in 1990 and 2000. Fiscal performance indicators (tax effort, and local budgetary allocations), were created based on INEGI's database on municipal finances, which includes yearly information on municipal revenues and

---

<sup>35</sup> The sample size is not the same across every analysis, given that there are missing observations for some municipalities in some of the years included. In other words, the panel is unbalanced because some municipalities do not report data at every year of the 1990-2001 period.

<sup>36</sup> The data can be accessed on-line at [www.cidac.org.mx](http://www.cidac.org.mx)

expenditures from 1989 to 2001.<sup>37</sup> Finally, variables measuring the levels of administrative institutionalization were constructed using survey data from the Municipal Development Censuses conducted by INEGI and INDESOL in 1995 and 2000.

## **1.7. OVERVIEW OF THE DISSERTATION**

Chapter 2 presents the theoretical framework that motivates this dissertation. It starts by introducing the recent theoretical and empirical research on governance, a topic that has gained academic relevance in explaining why the quality of governmental institutions is important for development. It also reviews the principal premises and propositions of the classical literature on decentralization, as well as the recent critiques it has received in recent years, particularly when evaluated from the perspective of developing countries. I claim that the classical economic foundations of fiscal decentralization theory are overly prescriptive and fail to explain the causes of better government performance. On the other hand, I argue that recent perspectives on decentralization have provided compelling reasons that alert us on the risks that fiscal decentralization entails in the absence of effective accountability mechanisms. Drawing on a promising line of inquiry that stresses how political and institutional factors can shape the consequences of decentralization at the local levels, as well as on research on local governments in Mexico, I argue that it is important to consider the interaction of electoral competition with decentralization in explaining variations in performance.

Chapter 3 develops two different measures of government performance, one related to the provision of public services, and another to the processes through which local governments develop their institutional capacity. Based on these performance

---

<sup>37</sup> These data can also be accessed on-line through INEGI's *Sistema Municipal de Bases de Datos* (SIMBAD) at [www.inegi.gob.mx](http://www.inegi.gob.mx).

indicators, the chapter presents two empirical models to test whether increases in electoral competition, party alternation, and voter turnout lead local governments to improve their rates of service coverage and to develop their administrative capabilities. The results imply that performance is more responsive to demand-side factors, than to increases in the levels of electoral competitiveness. They also indicate that high levels of party mobilization might preclude the development of local institutional capacities, given the unwillingness of incumbent policymakers to give up their ability to use public resources for political patronage.

Chapter 4 analyzes the budgetary choices and the revenue-raising capacity of municipal governments in Mexico in light of the political pressures created by a more contested and participatory electoral environment. Using panel data estimation methodologies, I analyze the consequences of the interaction between policy decentralization and electoral competition on the budgetary and taxing choices of municipal governments of Mexico. I also investigate whether the budget allocations and taxing enforcement of local governments change during electoral years, and whether the phenomenon of governmental juxtaposition (i.e. vertically divided governments) encourages incumbent politicians to invest more resources in public works and increase their levels of financial autonomy. The results tend to confirm the hypothesis that juxtaposition improves the autonomy of local governments, and that electoral years provide local politicians with the opportunity to make their actions more visible to the population. The evidence also indicates that only under conditions of decentralization, the competitiveness of elections is capable to induce authorities to invest on projects with higher social returns.

Chapter 5 analyzes how the decentralization of social infrastructure funds operates at the very micro level, using the Estado de México as a case study. Based on

semi-structured interviews with state and municipal officials, from a focus group exercise, and from electoral, financial, and sociodemographic information disaggregated at the level of localities, I generated additional insights on how the resource allocation decisions of municipal governments are made, the constraints (formal and informal) they face to improve their performance, and how the goals of the decentralization policy are transformed when they reach the implementation stage at the local level. The findings imply that municipal governments have a propensity to use party considerations in the formulation of their spending choices.

In the concluding chapter, I assert that the more contested and participatory electoral environment that characterizes Mexican municipalities has started to transform the decision-making strategies of local politicians, and that it has also increased the autonomy of local governments with respect to higher governmental levels. However, I claim that these changes have not yet been translated into better social outcomes, given persistent problems of governmental accountability, shortcomings in the design of decentralization instruments, and the recurrent opportunistic behavior of local political actors. Overall, the findings cast serious doubts on the ability of electoral democracy to produce better developmental consequences by itself, which implies that further institutional changes are required to make decentralization succeed.



## **Chapter 2**

### **Local Governance, Decentralization and Performance: A Theoretical Overview**

Why is local governance an important issue for scholars and practitioners these days? What are its principal consequences on the social and economic development of countries? What are the underlying forces driving improvements in the performance of governments, particularly at the local level? Are there some lessons to learn from the experience of other countries, including Mexico? This chapter presents a review of some relevant literature on local governance and decentralization with the purpose of exploring how other authors, from different academic disciplines, have attempted to provide some answers to those basic questions. The review attempts to draw insights from the literature on policy decentralization as well as from other explanatory frameworks heavily rooted in electoral theories of governmental accountability, in order to explore how the interaction between these two academic streams helps us to explain the factors that cause local governments in Mexico to improve their performance. The chapter starts by introducing the recent theoretical and empirical research on governance, a relatively new topic in social science inquiry that analyzes how and why the quality of a country system of governance is a determinant factor for development. Section 2.2 presents an overview of decentralization theories, since these have provided the principal arguments in favor of devolving policy authority to the local and sub-national levels in order to improve the efficiency in the allocation of resources. The classical decentralization arguments, I contend, have basically a prescriptive orientation, rather than an explanatory focus. Furthermore, they do not provide an explanation of why some governments perform better than others, since it is taken for granted that policy devolution will provide

by itself the incentives to assure an efficient provision of public goods (i.e. that government performance will be the logical result of the ability of voters to bring their preferences to the policy agendas). More recent developments in decentralization theory, which are also discussed in this chapter, have started to take into consideration the role of electoral and institutional factors in explaining the outcomes of different decentralization programs, and they have also pointed out that the ability of fiscal devolution to improve the performance of local governments depends on the existence of effective accountability mechanisms, particularly in the case of developing countries. In section 2.3 the chapter discusses in more detail an emerging body of literature that attempts to explain the consequences of decentralization on local governance, looking more at how local conditions shape the outcomes of a decentralized provision of public goods. The section underlines an incipient but very promising line of inquiry that emphasizes how local electoral conditions and institutions affect the effectiveness of decentralization to achieve its goals. Section 2.4 reviews the literature on local governments in Mexico, in order to highlight their most relevant insights and discuss some of their limitations. Finally, the chapter presents the implications of the literature for this research.

## **2.1. GOOD GOVERNANCE: A NEW TOPIC OF ACADEMIC RELEVANCE**

In the last decade a large number of studies have addressed, directly or implicitly, the issue of government performance. Recent studies –particularly those sponsored by international organizations, such as the World Bank, the OECD, and the IADB- have started to consider the quality of a country’s governance as an important independent variable explaining developmental outcomes, such as economic growth, foreign investment, poverty reduction, and income inequality. Huther and Shah, 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” (Huther and Shah, 1998, 2). The quality of a country’s governance is assessed in terms of the impact that the use of power by state institutions has on the quality of life of its citizens. Studies of this type normally rely on cross-national comparisons, and they develop performance indices aggregated at the national level. The cited authors, for example, create governance indicators based on a government's ability to ensure political transparency and voice for citizens, to provide efficient and effective public services, to promote the health and well-being of constituents, and to create a favorable climate for stable economic growth.

Another illustrative example of this type of research are the World Bank working papers by Kaufmann et. al. (1999a, 1999b, and 2002), where the authors develop governance indicators based on the following dimensions: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption. From data covering 175 countries, they find evidence on the importance of good governance for economic development, and absence of "virtuous circles" between per capita income and better governance (i.e., they find that the causation runs from governance to income, but not in the opposite direction).

There are many other studies for which a specific aspect of a country’s governance (for example corruption levels, political instability, rule of law, bureaucratic efficiency, institutional credibility, and civic trust and cooperation) is the key independent variable explaining economic and social development. Ades and di Tella (1996) find that corruption negatively affects investment, and that corruption is positively related with the lack of competition in the economic market and with less independent judicial systems. Brunetti et. al. (1997) conclude that business credibility promotes

economic growth and private investments. Also, Chong and Calderon (1997) observe that the degree of institutional development of countries (measured through the enforceability of contracts, infrastructure quality, bureaucratic promptness, and other institutional indicators) positively affects economic growth in development countries, although they also find evidence of a reverse causality relationship between those variables. Macroeconomic stability is another developmental outcome that seems to be positively affected by governance factors, as found by Cukierman et. al. (1994) in their analysis of the consequences of the legal independence of central banks on inflation. Many other studies emphasizing the role of institutional arrangements (Alesina *et. al*, 1996; Fukasaku and Hausmann, 1998; La Porta *et. al*, 1998; Wei, 2000) conclude that formal institutions, such as the centralization of budget processes, the nature of party systems, or the openness of the economy, play a relevant role in providing the incentives for good performance among politicians and public bureaucracies.

In summary, most of these studies suggest that the quality of governance constitutes an important variable to explain social and economic development across countries, particularly in the case of developing nations. However, one of the principal limitations of these research efforts is, in my view, that although they persuasively demonstrate the importance of effective institutions for development, they do not explain why and how good governance can emerge. That is, for none of the studies cited does the performance of governments constitute the dependent variable. Another limitation of the current literature on governance is that it generally pays little attention to variations in institutional conditions taking place *within* countries, rather than *between* countries. In other words, there are relatively few studies for which local or sub-national governments within the same country constitute the units of analysis. I believe that this shortcoming is important, given that sub-national governments have acquired important policy

responsibilities during the last years all over the world. Furthermore, local conditions and institutions might also play a very relevant role in explaining developmental outcomes. Thus the contribution of my dissertation to the study of governance is twofold: it will provide arguments on why some governments perform better than others, and it will use the local level of government in Mexico (the municipality) as the main unit of analysis.

## **2.2. THE LITERATURE ON DECENTRALIZATION**

### **2.2.1. Classical decentralization theories**

The classical foundations of fiscal decentralization theory come from the works of Charles Tiebout and Wallace Oates (Tiebout, 1956; Oates, 1972), who provided arguments supporting the view that local governments should have the control over a number of expenditure functions to improve the efficiency of resource allocations. Tiebout offered a solution to the classical problem of public goods provision, arguing that local governments are better suited to identify the preferences of their constituents, and to incorporate them into their taxing and spending decisions. Acting like a private market, local governments will charge taxes and supply local services, and citizens will reveal their true preferences by “voting with their feet”: they will move to jurisdictions that best match up with their tastes. At the margin, the benefit from consuming the public good or service will be equal to the cost, approaching a Pareto optimal solution. Despite the fact that Tiebout’s model rests on very strong (and presumably unrealistic) assumptions, his theory has been advanced as an argument to justify why local governments should be

granted with most expenditure responsibilities, such as health, education, infrastructure, and public safety.<sup>38</sup>

A second important model in fiscal decentralization is the work by Wallace Oates. He shares with Tiebout the notion that different areas have different preferences for public goods, but he also makes the point that not all public goods have the same characteristics. Some goods, such as defense or macroeconomic stabilization, provide benefits to the whole country, while others such as regional transportation systems, provide only local benefits. A centralized government might ignore these spatial characteristics and the diversity of preferences, thus it is very likely to provide public goods inefficiently. His conclusion is the following:

for a public good –the consumption of which is defined over geographical subsets of the total population, and for which the costs of providing each level of output of the good in each jurisdiction are the same for the central or the respective local government—it will always be more efficient (or at least as efficient) for local governments to provide the Pareto-efficient levels of output for their respective jurisdictions than for the central government to provide any specified and uniform level of output across all jurisdictions (Oates 1972, 35).

The main implication from Oates' theory is that decentralization policy should assign responsibilities among different government levels, according to the spatial characteristics of public goods. Another implication of both Tiebout and Oates' theories is the belief that local governments are more likely to perform better than central authorities, since local constituents can exert pressure –either by voting or by moving to alternative jurisdictions—to hold local policymakers accountable for their actions. In other words, local government performance is assumed to result from a decentralized system of public goods provision that allows citizens to reveal their policy preferences.

---

<sup>38</sup> Some of the assumptions in Tiebout's model are that the cost people face to move from one locality to another is negligible, that people have perfect information about the amount and quality of services and tax rates of different jurisdictions, and that there are no externalities between jurisdictions.

### **2.2.2. Critical views on decentralization**

During the nineties, several scholars started to show reservations on the alleged virtues of decentralization, particularly when applied to developing countries.<sup>39</sup> These critical perspectives point out that decentralization can produce adverse effects on several aspects of the economy. Their goal is not to reject the whole idea of decentralization but only to make policymakers conscious of the importance of analyzing carefully the potential outcomes of decentralization programs. This body of literature has considered that decentralization can produce adverse effects in three different ways: 1) by threatening macroeconomic stability; 2) by exacerbating income inequality; 3) by weakening economic and production efficiency.

In his classical article on decentralization, Tanzi claims that sub-national governments in developing countries are likely to contribute significantly to the aggravation of macroeconomic problems, or at least they make it more difficult to correct them. Although decentralization should ideally be based on a clear and comprehensive contract between central and sub-national governments (a contract spelling out the obligations of local and sub-national governments, imposing strict limits on the amount of transfers they would be entitled to receive, and requiring them to finance any spending increase through the use of local taxation), in developing countries such a contract is not binding, since spending responsibilities are vaguely defined and subject to changes. Also, Tanzi asserts that local policymakers have incentives to overspend or undertax, have poor information and expenditure management systems to guide their decisions and control their budgets. “When clear and firm constitutional or legal guidelines are

---

<sup>39</sup> The pioneering critical works are those by Prud’homme (1995), and Tanzi (1995).

missing, decentralization may create a situation in which local governments can gain by increasing spending while shifting the financing costs to the whole country” (Tanzi, 1995, 306).

Decentralization may aggravate structural fiscal problems if, for example, large tax bases are assigned exclusively to sub-national governments, while most spending areas remain under the responsibility of central authorities. The reason is that the tax resources available for the national government would be too low.<sup>40</sup> Sharing major tax bases can also be problematic for macroeconomic management for similar reasons: when the percentage of tax revenues that the central government shares with sub-national levels is too high, the capacity to stabilize the economy is reduced severely. Finally, sub-national borrowing is another channel through which decentralization might create macroeconomic problems, particularly when the central government tends to bail out the debt of states and municipalities. A significant amount of research has been done on the impacts of decentralization on national fiscal performance, particularly referred to the fiscal balance of central governments—a major determinant of macroeconomic stability.<sup>41</sup>

Besides the problems that decentralization might entail for macroeconomic management, Tanzi and other authors assert that decentralization might also aggravate

---

<sup>40</sup> The case of Brazil is a good example of this situation, where the decentralization of major tax bases explained its high fiscal deficits (see Bahl and Linn, 1992).

<sup>41</sup> See for example the book edited by Fukasaku and Hausmann (1998), in which the authors explore the effects of decentralization, electoral institutions, and the size of central and subnational governments on fiscal deficits. See also the article by Alesina *et. al.* (1996). The leading authors working on these issues commonly frame fiscal deficits as “common-pool” and “agency” problems. In a nutshell, a common-pool problem emerges when each participant can shift the burden of a decision onto others, making everybody worse off. The federal budget is viewed as a common-pool resource because, under decentralization, jurisdictions have the incentives to shift the responsibility of their spending decisions onto all taxpayers in a country. Since all jurisdictions face exactly the same incentives, central fiscal deficits will emerge. In addition, decentralization creates agency problems when the central government has an imperfect ability to monitor the actions of lower levels. De Mello (1999) presents empirical evidence from a sample of 30 countries in the period 1970-95, suggesting that decentralization negatively affects national fiscal outcomes due to such coordination failures.



income inequality. The reason is that local jurisdictions might not have big incentives to redistribute: if a local government adopts vigorous redistribute policies by taxing wealthy people and providing high benefits for the poor, then the rich will tend to move to jurisdictions with low taxes and poor people will tend to leave areas with lower benefits. Thus, redistribution would not be financially sustainable at the local level. For this reason the common argument is that central governments should be responsible for income redistribution. Prud'homme (1995) points out that income can and should be redistributed among jurisdictions as well as among individuals. He claims that correcting interpersonal disparities does not necessarily correct interregional inequalities:

a reduction in income disparities does not necessarily correlate with a reduction in regional income differentials. If income levels in a poor region are more equally distributed than in a higher-income region, transfers to poorer citizens will primarily benefit the richer region and actually increase regional disparities (Prud'homme, 1995, 203).

Prud'homme doubts that a decentralized system is likely to be more effective at reducing interjurisdictional disparities than a centralized system, since the empirical evidence unambiguously shows that in a centralized system richer regions subsidize poorer regions through national budgets, while in a decentralized system local jurisdictions collect all taxes from and undertake all expenditures on behalf on its residents. The principal policy implication from these arguments is that central governments can reduce interregional disparities by maintaining the control over budget resources, but this means that it should impose limits on local and sub-national governments in their capacity to raise local taxes.

Although decentralization has typically been defended on the basis of economic efficiency (given the classical assumption, previously discussed, that local governments can better match the demands of residents), there is evidence challenging such

proposition. According to Prud'homme, in developing countries the problem is not that local jurisdictions have different preferences for public goods, but they have different needs (income). Since basic needs are well known, the welfare gains associated with a better match of supply and demand are not large. Second, the assumption that people will express their policy preferences in their votes is very unlikely to hold in developing countries, where local elections are usually decided on the basis of personal, tribal, or political party loyalties. Third, the assumption that local officials will satisfy local constituents' preferences is also unlikely, since mayors do not generally have the resources nor the incentives to improve their performance, and also because local bureaucracies are often unresponsive and unqualified to pursue the policy agenda of mayors.

But the problem of efficiency does not refer only to the capacity of local governments to reflect local preferences, but also to provide services in an honest and cost-effective manner, as stated by the cited author. In this respect, decentralization also entails risks because local governments in developing countries lack the technical capacity to undertake tasks that require highly qualified personnel. This can be explained by the fact that central bureaucracies offer better careers to their employees, with a greater diversity of tasks, more possibilities of promotion, less political intervention, and a longer view of issues. They also invest more in technology, research, and innovation. A further problem comes from the possibility that decentralization might generate more corruption at the local levels. Local politicians and bureaucrats are more likely to be subject to pressing demands from local groups, making it difficult to enforce the law.<sup>42</sup>

In order to solve all these potential problems, the literature suggests that the design and implementation of decentralization policies should be conducted carefully,

---

<sup>42</sup> Prud'homme estimates that informal taxation in Zaire (payoffs to authorities as well as contributions, gifts, and donations) is at least eight times more important than formal taxes.

placing special attention to the distribution of expenditure responsibilities among governmental levels, the assignment of taxes and bases, the design of intergovernmental transfers, and the system of sub-national borrowing.<sup>43</sup> Although it would be excessive to say that there are key ingredients for a successful decentralization, Bird and Vaillancourt (1998) claim that two conditions seem to be particularly important. The first condition is that local decision process must be democratic, in the sense that decisions should be transparent and the people affected should have the opportunity to influence them. The second condition for success is that the costs of local decisions must be fully borne by those who made the decisions. In other words, local governments should face hard budget constraints with respect to devolved functions in order to ensure accountability. However, the approaches taken by many countries are too diverse as to propose unique solutions. As these authors suggest, “policy recommendations in the area of intergovernmental finance must be firmly rooted in understanding the rationale of the existing intergovernmental system and its capacity for change if they are to be acceptable and, if accepted, successfully implemented” (Bird and Vaillancourt, 1998, 35).

In my view, this stream of research has generated interesting insights for our understanding of the dangers that decentralization entails in the absence of clear and enforceable mechanisms of accountability between government levels. It has also reminded us that the effects of decentralization strongly depend on the existence of specific institutional arrangements that facilitate or hinder the accomplishment of its social and economic goals. Nevertheless, I still think that this literature has a number of shortcomings. The first is that it has implicitly adopted a top-down approach to the study of decentralization, where this policy is mostly assessed in terms of its effects on national priorities, but not that much on the achievement of local outcomes. Typically, empirical

---

<sup>43</sup> I will not discuss in detail these issues. The prevailing decentralization policy advice can be found in Ter-Minassian (1997), Litvack *et. al.* (1998), Bird and Vaillancourt (1998).

analyses of this kind consist of cross-country comparisons, but variations in performance across sub-national or local governments are not sufficiently explained. Furthermore, this line of inquiry generally disregards how decentralization can also be shaped by local and sub-national conditions. In other words, it pays no attention to the ability of local political processes and actors to influence the objectives, instruments, and outcomes of decentralization, from a bottom-up angle. For example, this literature has disregarded the electoral and institutional changes that have taken place at the local levels in many developing countries, which might endogenously improve the condition for better local governance and, consequently, increase the chances of decentralization to succeed.

### **2.2.3. Political perspectives on decentralization**

There is another interesting stream of literature, developed from the perspective of political science, which tries to provide a less normative approach to the study of decentralization, stressing the importance of electoral institutions. For many of these studies, the fundamental question is why national governments decide to decentralize political, administrative, and fiscal authority to their sub-national units (such as states, departments, and municipalities). A recent book on decentralization in Latin America constitutes a good example of this type of research (Montero and Samuels, 2004), where decentralization constitutes the dependent variable. The authors emphasize the role of political factors as determinants of decentralization in Latin America. In their view, decentralization should be understood as a purposeful strategy of national and sub-national political elites to guarantee their political survival, either under a context of democratization or authoritarianism. They strongly favor explanatory approaches rooted in institutional and electoral elements since these help to understand the incentives of politicians (at all levels of government) to support decentralization policies. Specifically,

the incentives of politicians to decentralize are, in the authors' view, a function of the competitiveness of electoral contests, the relative importance politicians ascribe to subnational versus national elections, their relative dependence on national versus subnational government resources, and the importance of national versus subnational power brokers within political parties.

Regarding the Mexican case, Rodríguez (1997) argues that the decentralization policies put into practice by the federal government in the 1980s were the result of a deliberate strategy of the government to recover its legitimacy, which was undermined by the economic crisis of the early years of that decade. However, Rodríguez contends that the policy-making authority ceded to sub-national governments was in fact very limited because the PRI and the central government were unwilling to decentralize political power. In a similar vein, Bruhn (1999) argues that the first electoral victories of opposition parties at the local levels were tolerated by the national PRI, in so far as they did not undermine its political hegemony at the national level.

Using also a political analytical framework, other authors have started to investigate, not the causes of decentralization, but under what specific conditions (political and institutional) decentralization is more likely to accomplish their developmental goals, particularly at the local and sub-national levels. This stream of literature evidently raises the issue of why some local governments perform better than others once decentralization has occurred. Interestingly, many of these studies have started to use local and sub-national governments as their units of analysis, and also have a particular focus on developing countries. The following section discusses the principal contributions of this type of literature. Also, in the section dealing with the Mexican case I will revisit these type of research, presenting some illustrative examples.

### 2.3. THE LITERATURE ON LOCAL GOVERNANCE AND INSTITUTIONAL PERFORMANCE

There is an important academic and policy debate trying to understand how decentralization works at the local levels and what consequences it has on local governance.

One of the most influential works is Putnam's *Making Democracy Work* (Putnam, 1993), which analyses the determinants of institutional performance in twenty regions of Italy, after new legislation was enacted to strengthen the political autonomy of regional governments in 1970. His central argument is that the variations in civic traditions between Italian regions explain the differences in their institutional performance. In other words, good government practices among northern regions have been the result of their strong "civic community", characterized by a high level of associational life to accomplish collective tasks. Putnam's argument persuasively challenges the main conclusions of traditional collective action theorists: that social cooperation can only be achieved through hierarchical or "Hobbesian" institutional arrangements, where the state enforces the rules that require people to contribute to the public good.<sup>44</sup> Based on James Coleman's theory of social action (Coleman, 1990), Putnam argues that social norms of trust and reciprocity are key elements in promoting cooperation. However, one of the principal criticisms to Putnam is that the causal mechanism linking "social capital" to government performance is not sufficiently explained. Also, he did not include in his argument the role that political and local institutional factors can play in explaining variations in performance.

---

<sup>44</sup> The problem of cooperation for collective action is one of the most debated issues in social science research. A dominant assertion among collective action theorists (Olson, 1965) is that rational individuals do not have incentives to cooperate, since they prefer to "free-ride" on others. However, this type of behavior produces an inferior social outcome because everyone would be better-off by cooperating, but no one has incentives to do it (this is the "prisoner's dilemma" in game theory). Some authors have implied that vertically enforceable rules are required to solve this dilemma. However, Putnam is not the only author which has criticized this solution (for example, see the excellent work by Ostrom, 1990).

Another interesting study addressing the issue of local governance is the work by Tendler (1997). She analyzes why one of the poorest states of Brazil, historically characterized by a clientelistic style of government and by the poor quality of its public administration, was able to successfully introduce a set of innovative reforms in several policy sectors, such as health, agriculture, and employment. One of the ingredients explaining the relative success of these reforms was that the state adopted an original approach based on trust, managerial autonomy, indirect monitoring, decentralization to municipalities, and social participation. However, Tendler argues that citizen participation did not operate according to the stylized portrayal of decentralization, where the central level devolves authority to local governments, and the civil society keeps an eye on how social preferences are incorporated into the decision-making process. Contrary to this common view, she shows that the state government created and organized the “civil society” (i.e., social participation is not necessarily endogenous). Two of the limitations of her study are, in my opinion, the lack of variation in her dependent variable (she only analyzed a single successful case), and the fact that political factors are absent from her analysis.

Another widely cited study is Fiszbein’s, which analyzes how local capacity was strengthened in Colombian municipalities after the national constitution gave local governments more resources, responsibilities and decision-making authority (Fiszbein, 1997) in the mid-1980s. Based on a sample of 16 municipalities, Fiszbein shows that local governments were able to meet the challenge of decentralization in a relatively effective way, by making use of existing, but underutilized, capabilities and through conscious efforts to upgrade them. He finds that competition for political office opened the doors to responsible and innovative leadership that became the driving force behind capacity building. A second element fostering local capacity was the leadership of

mayors, since it enables governments to use underutilized capacities within the administration, provides essential skills not previously available, and helps manage conflicts between the mayor and the council. Another capacity-building factor was community participation, which forced government accountability and broadened the resources on which the municipal administration could draw upon to improve its capacity. Finally, Fiszbein identifies three principal constraints to capacity building: 1) the complexity of the legal and regulatory framework under which municipalities operate, 2) the insufficient inter-municipal coordination, particularly the difficulty of learning about the lessons and experiences of others, and 3) the absence of consecutive reelection at the local level, since it precludes the sustainability of local capacity development.

A recent research paper on Uganda and the Philippines provides an interesting methodological framework to analyze under what conditions is decentralized governance more likely to produce good results (Azfar, et. al. 2001). The study develops an empirical research methodology to measure institutional performance across sub-national governments, and to investigate some of its determinants. It establishes two criteria to define performance, namely whether governments provide services that respond to local demands, and whether corruption is prevalent in the system. The paper then analyzes how selected institutional arrangements and social practices influence the performance of decentralized service delivery.<sup>45</sup> Finally, the study examines the causal linkages from these formal and informal arrangements to the outputs and outcomes of public service provision, such as educational attainment, citizen satisfaction, and infant mortality. Its principal finding is that while decentralization in both countries has certainly transferred

---

<sup>45</sup> Those arrangements are classified into three main types of disciplines: 1) *civic disciplines*, for example the degree of political awareness, information and participation of people in public affairs; 2) *intergovernmental disciplines*, mainly the degree of autonomy and discretion of local authorities to respond to local demands; 3) *public sector management disciplines*, for example whether the recruitment process is based on merit rather than on kinship or patronage, the existence of accountability mechanisms, the competence of local officials, etc.



authority and resources to sub-national governments, the results do not match the most optimistic theoretical expectations. These adverse outcomes are explained largely by the relatively unresponsiveness of governments to local preferences, given the prevalent procedural, resource and governance constraints they face.

#### **2.4. THE LITERATURE ON LOCAL GOVERNMENTS AND DECENTRALIZATION IN MEXICO**

In 1972, Richard Fagen and William Touhy published a book in which they analyzed how the Mexican political system operated at the level of the municipality, using Jalapa, the city capital of Veracruz state, as a case study (Fagen and Touhy, 1972). The authors saw in that city a microcosm reflecting the bureaucratic and authoritarian system that prevailed all around the country at that time. In their characterization of the municipal government institution, the authors highlighted its extremely lack of political and administrative autonomy (i.e. its high dependence with respect to the state government), its low technical capacity to aggregate social demands, and consequently its inability and unwillingness to generate public policies aimed at improving the welfare conditions of citizens. In their view, the institutional weakness of the municipal government of Jalapa was the natural consequence of a political system that encouraged conservatism (the tendency of incumbent and aspirant politicians to maintain the status quo) and detachment from the substance of public policy (decisions made and resources allocated more on the basis of political and personal factors, than on developmental or social criteria). The following two quotes illustrate well the authors' view on municipal governments:

“Chosen as a reward for prior service and guaranteed election, left almost without resources and knowing that they will not have to answer for their performance in office, local officials are thus only occasionally at the service of the community.

At the municipio level, political irresponsibility and limited responsiveness are thus inseparable from powerlessness, centralism, and careerism”(Fagen and Touhy, 1972, 65).

“The “good” politician (...) is rewarded not for his innovativeness, initiative, or positive accomplishments in the making or implementing of public policy, but rather for his capacity to facilitate the functioning of the apparatus through the balancing of interests, the distribution of benefits, and the control of potentially disruptive or disequilibrating forces.” (Fagen and Touhy, 1972, 27).

Fagen and Touhy persuasively provided a set of institutional explanations for the municipal “inaction and non-response”, such as the lack of real electoral competition, the short tenure in office of municipal authorities, and their impossibility of reelection. Fagen and Touhy’s findings did not only reflect the situation of local politics in Jalapa, but actually the governance style that prevailed in Mexico during the years of the PRI hegemony.

More than 20 years after the publication of that book (now a classical study of Mexican local politics), the political landscape of state and municipal governments in the country started to undergo a rapid process of democratization. The analysis of Mexican local governments became one of the central interests among scholars and practitioners, as a result of the fact that municipal and state governments became the principal arena of electoral competitiveness in the country, giving rise to the arrival of opposition parties for the first time in the history of post revolutionary Mexico. Another reason for the widespread interest on local governments in Mexico was the decentralization policies launched by the federal government during the eighties and nineties, transferring new responsibilities to states and municipalities. Given the new opportunities for political plurality and the fact that local governments are the most direct link between citizens’ demands and governmental authorities, the local level started to be regarded as the ideal place for reshaping the relationships between state and society in the country.

Among the first attempts to systematically evaluate the experiences of municipal administration in Mexico, particularly those governed by opposition parties, are the several studies produced and coordinated by Rodríguez and Ward during the first half of the nineties.<sup>46</sup> One of the issues that was explicitly investigated under their research agenda was the question about the effectiveness and capacity of opposition parties to govern, after a very long period of PRI rule at the state and municipal levels. Overall, the authors observed that the first years of opposition government in the country were evidently marked by lack experience or background in urban governance, which were aggravated by the shortness of term and the no reelection clause. In addition, they did not find local governments structuring very coherent programmatic agendas, which, once more, was a symptom of their inexperience in government. Another issue explored was the extent to which partisan political rationality was intervening the local decision-making process. Although partisan considerations were still present, Rodríguez and Ward identified that the new local governments (especially those from the PAN) put stronger emphasis on efficiency and transparency principles for public budgeting. Finally, the authors addressed the issue of intergovernmental relations between the three levels (municipal, state, and federal), under a context of “vertically divided” government. In this matter, the authors did not find evidence that opposition governments were penalized with lower statutory state and federal funds. However, they observed that upper governmental levels employ other, more subtle, mechanisms to punish opposition governments, such as delays in the delivery of transfers, or less support coming from discretionary lines of funding, particularly for large-scale public works. Interestingly, the result of this type of intergovernmental game created the conditions for more autonomous

---

<sup>46</sup> See Rodríguez and Ward (1992, 1994, 1995).

local governments, since they responded by expanding the collection of own-source revenues.

One of the principal topics that became central in the Mexican literature on local governance was the new role that social participation was beginning to play in a more democratized environment. Several studies described how local governments were adopting innovative approaches to incorporate the participation of citizens and social groups in local public affairs.<sup>47</sup> In many cases, local governments –particularly those governed for the first time by opposition parties- attempted to break the traditional governance styles based on political patronage, clientelism, and authoritarianism, typical of the PRI administrations, replacing them with more inclusive and horizontal mechanisms. Nevertheless, most authors coincide in stating that Mexican municipalities still lack the necessary autonomy (mostly fiscal and legislative) to better deal with the multiple demands of their citizens (Rodríguez, 1997).

Despite the widespread enthusiasm with the new role of social participation in local public policy, there were more pessimistic views about the prospects of citizen involvement in local affairs. One important contribution is the work by Guillén López (1996), whose central claim is that the political openness created by the increasing electoral competitiveness of Mexican municipalities, has not yet permeated the decision-making processes taking place within local governments. In other words, that despite the fact that local citizens have gained significant influence on the selection of their local authorities, the institutional environment of local governments still prevents society to play a relevant role in the definition and implementation of local public policies. Guillén López argues that several institutional limitations explain the persistence of a vertical and relatively centralized governance style at the local levels, using evidence from

---

<sup>47</sup> The collection of essays and case studies in Merino (1994) and Ziccardi (1995) are good examples of the analyses that concentrate in the role of social participation in municipal governance.

municipalities located on the Mexico-United States border. The first reason is that state electoral legislations forbid local political organizations to contend in municipal elections if they are not represented at the state or even national levels (i.e. only national and state parties can contend in municipal elections). This introduces a strong distortion in the quality of representation at the local levels, since state or national political parties do not necessarily reflect the political interests of local constituents. Another important factor are the rules for the integration of local councils, also regulated by state laws, namely their lack of political plurality. Even though the national constitution mandates that local councils should be formed according to a rule of proportional representation, in reality the mayor's party is the dominant force within the local council. This is also reinforced by the fact that council members (*regidores* and *síndicos*) are not authorities elected in their own right: they are jointly selected from party lists over which the mayor may have considerable leverage.<sup>48</sup> As a result, the link between councilors and local constituents is generally weak, thus explaining the small influence of society on the content of local policies. In addition to the problems of representation within local councils, these bodies generally lack sufficient resources (budgetary, informational) to be able to exert an influence on local policymaking. Nevertheless, Guillén López finds that councilors play an important role in identifying problems in the community and acting on behalf of local groups. In my view, although many case studies on Mexican local governments provide evidence of new approaches to incorporate social participation in policymaking, I consider that the argument of Guillén López implies that those innovative methods might

---

<sup>48</sup> It is important to note, however, that local mayors do not necessarily have an absolute control on the nomination of council members, since local party leaders in many instances have greater influence. Ward asserts, for example, that “an unwary municipal president might find that his or her *planilla* is stacked by the party's municipal committee with people whose loyalty and policy inclinations lean more heavily towards the party *apparatchiks* than to the incoming municipal president” (Ward, 1998, 353).

be ephemeral or unable to become institutionalized, given the legal constraints that municipalities still face.

Another group of studies has focused more on the policy and managerial dimensions of local governments, rather than concentrating only on the issue of social participation. Cabrero-Mendoza (1996), for example, presents several case studies on local government innovations in Mexico. In all the cases analyzed, he finds that local councils were very active in defining and discussing the municipal policy agendas. From interviews with local councilors and a review of the *actas de cabildo* (council meeting proceedings), Cabrero-Mendoza observed a pattern that is uncommon in Mexican local governments: the records of discussions taking place at local councils were very well organized (a sign of the relative importance of local councils within the municipal government), and in most cases council members perceived that their opinions were relevant for the local decision-making process. This result contrasts with the predominant pattern observed across the country, where local councils play a secondary role. Cabrero-Mendoza classifies the innovations studied into three main types of strategies: some local governments based their innovations on the participation of citizens and social groups, creating the necessary structures to facilitate them, or taking advantage of preexisting institutions (for example using autochthonous forms rooted in the community). Some other municipalities used leadership as a basic element for innovation, trying to restore the credibility of people and articulating their cooperation. Finally, a third group of localities introduced innovation strategies by transforming their intergovernmental relationships with the federal and state levels, which provided important inputs to make the innovation succeed.

An interesting article that provides a systematic summary of the several case studies on local governance in Mexico is a paper by Ward (1998). His central argument

is that the traditional partisan style of governance that characterized local governments in Mexico during the years of PRI hegemony, is gradually being replaced by a more technocratic approach, and that this shift in governance styles appears to be independent –at least to some extent- from which party is in power at the local levels. Ward establishes a governance typology based on two variables: a) the level of technical rationality applied for local decision-making (i.e. the inclination of government officials to make policy choices according to technical criteria, rather than on partisan considerations), and b) the nature of party-government relations (i.e. the degree to which government decisions are influenced by party leaders, rather than by elected authorities). Assuming that these two dimensions lie on a continuum, Ward derives four types of governance styles. One of the extremes of this categorization is named “machine politics”, characterized by strong party-government relationships and a low degree of technical rationality. This was the predominating style of local governance in Mexico until the eighties, when electoral competition and party alternation were starting to emerge at the local sphere. The other extreme is labeled “technocratic governance”, in which there is a combination of high technical rationality in decision-making with very weak party-government relationships. This category clearly resembles the governance style of most urban municipalities won by the PAN in the late eighties and early nineties, characterized by a strong use of business management techniques, recruitment patterns based more on local credibility than on partisanship, and a more intensive use of public consultation mechanisms for agenda-setting. The other two resulting categories are called, respectively, “modernizing governance” and “autonomous government”, being the first a combination of high technical rationality and strong party-government relationship (the party still exerts a significant influence on the government’s policy agenda, but day-to-day decisions are largely based on technical considerations), while the second reflects

just the opposite (this would be the case of most small rural municipalities dominated either by strong *caciques*, or by indigenous practices). Ward contends that local governments in Mexico are gradually moving from the traditional “machine politics” and “autonomous government” categories to the more sophisticated technocratic and modernizing styles, as can be testified by most case studies on municipal governance in Mexico. Finally, he argues that this shift in governance styles is explained by several factors, for example the increasing competitiveness of local elections, the rise in electoral victories of opposition parties, the need for parties to exercise effective government in order to remain in power, and policy reforms launched by the national government since the early eighties to strengthen the autonomy and responsibilities of local governments in the country.

Much of the literature on local governments in Mexico, at least the studies that were produced around the first half of the 1990s, were basically grounded on case study methodology. The absence of large-n statistical analyses during those years was probably due to the lack of systematic and extensive data at the level of states and municipalities. The proliferation of statistical information on local elections, public finances, and the results of the 2000 population census has enabled the use of quantitative approaches to the study of local governance issues in the country. Beside the use of statistical methodologies for hypothesis testing, many of the studies that started to emerge in the first years of the current decade have a clear focus on institutions and electoral processes.

One illustrative example is a recent study by Hiskey (2005), who analyzes to what extent political and institutional factors explained the ability of Mexican states to recover from the 1995 economic crisis. Hiskey shows that the relationship between multiparty competition and sub-national economic recovery is not linear due to electoral transition



costs: states undergoing democratic transition at the time of the crisis (i.e. those characterized by political instability and recurrent challenges to incumbent elected officials) were least equipped to respond to it, while states where electoral competition had been already accepted as the normal mechanism to solve political disputes, were better prepared to recover from the crisis.

Another piece of work highlighting the importance of political factors for performance is Hiskey's analysis of the effectiveness of the *Programa Nacional de Solidaridad* (PRONASOL), the principal poverty alleviation program launched in the early 1990s by the Salinas administration in Mexico, in increasing the provision of basic services in Mexican municipalities (Hiskey, 2000). Specifically, he evaluates whether the competitiveness of local elections was an important ingredient to make the policy succeed. "Given the increasing focus on the demand-based approach in developing countries with decidedly uneven democratic landscapes, the need is clear for extensive analysis of the relationship between the local political environment and antipoverty programs based on citizen empowerment." (Hiskey, 2000, 3). Hiskey looks at the development impact of PRONASOL across the 237 municipalities in the states of Jalisco and Michoacán in Mexico. He finds that PRONASOL was three times more effective in increasing electrification coverage rates in municipalities with high levels of electoral competition, than in less competitive municipalities. He does not find, on the other hand, any significant consequence on the provision of water and sewer systems. Another study addressing the same issue is the work by Díaz-Cayeros and Magaloni (2003). Contrary to Hiskey, the authors do not include electoral competition as a variable that mediates the effectiveness of the program; instead, they consider that differences in levels of electoral competition only affect the amounts of PRONASOL spending. Another difference is that their sample includes all Mexican municipalities. They find that the program in fact

contributed to improve welfare conditions in municipalities, but that its effects were very limited. Indeed, Díaz-Cayeros and Magaloni claim that if the program had not existed at all, municipalities would have nevertheless improved their access to services as a result of a “natural” process of convergence. The failure of the program to achieve better developmental outputs was, in the authors’ view, a result of its inadequate targeting to the poorest regions of the country, which in turn can be attributed to the political motivations of the program: the disbursement of PRONASOL funds was adjusted according to the calendar of federal elections; municipalities won by the PRI (or those where the PRI historically enjoyed higher electoral support) were rewarded with more funds; a disproportionate amount of funds were targeted to municipalities where the PRI obtained tighter margins of victory; finally, transfers of a more private nature were used from a clientelistic logic. Their findings overall support the results obtained by Molinar and Weldon (1994), who conclude that PRONASOL expenditures were related to the Mexican government’s electoral responsiveness. They claim that, despite its decades-long history of non-competitive elections, by 1991 the regime was willing to compete for votes with methods common to all electoral democracies.

Another interesting work that constitutes a good example of the bottom-up approaches to understand the issue of decentralization in Mexico is the book by Beer (2003). She highlights the importance of the structure of incentives facing subnational political actors to push for a more decentralized policy setting. Beer uses Mexican states as her units of analysis during the 1990 decade, when state governments became the principal arena of electoral competition in the country. Her central argument is that the increase in electoral competition at the state level is an essential condition to enhance the fiscal autonomy of state governments (that is, to decrease their financial dependence with respect to the federal government). Beer’s proposition is based on the assumption that

the decline in the PRI hegemony in Mexico has permitted local political actors to build their basis of support more on local constituencies than on national party bureaucracies, since the latter cannot assure them an electoral victory anymore. Governors elected under more competitive conditions have a special incentive to pay attention to the demands of their constituents, thus they will demand greater autonomy over fiscal policy. Her empirical results seem to confirm her hypothesis by showing that a more contested electoral environment increases the state expenditure on public goods, and the state locally generated revenue. In my view, one of the principal problems in her study is that she does not isolate the effects of electoral participation from those of electoral competition, which are two different aspects of a democracy, but that the author combines into a single index.

A recent study (Cleary, 2004) explicitly addresses the question of the effects of electoral competition on the performance of municipal governments. He claims that the consequences of competition are quite limited, compared to the effects of non-electoral means of citizen influence. Using evidence from fieldwork and case studies, the author suggests that traditional forms of participation such as lobbying, protesting, and direct contact with government officials have increased in recent years in Mexico, and also identifies new forms of participation that have been effective in improving the responsiveness of local officials.<sup>49</sup>

## **2.5. IMPLICATIONS OF THE LITERATURE FOR THIS RESEARCH**

The existing literature on governance and decentralization provides valuable insights for this dissertation. The first, coming from the classical works on

---

<sup>49</sup> My own research has benefited very much from the discussions and exchange of data with Matthew Cleary, although we do not necessarily coincide in the interpretation of some results.

decentralization, is related to the ability of the local environment to provide policymakers with the necessary incentives to improve the provision of locally provided public goods. As I have already discussed, competition was envisaged by classical theorists as the principal driving force that would produce efficient outcomes under a decentralized system of service provision. Without this key incentive, the prospects of local governments to effectively match the preferences of the electorate would virtually disappear. However, contrary to Tiebout's model, my focus will not be on the capacity of local voters to threat incumbent officials by migrating to alternative jurisdictions, but on their ability to remove them from office through the use of suffrage. In other words, part of this dissertation will explicitly test the hypothesis that electoral competition in Mexico is an effective mechanism to hold public officials accountable to citizens (see Chapters 3 and 4).

Although this dissertation draws on the basic premise proposed by classical decentralization theorists that competition encourages performance, it diverges from their approach in several ways. For example, I do not take for granted that the only devolution of policy responsibilities to local governments will inevitably generate improvements in the efficiency of public service provision, even under a context of high electoral competition. On the contrary, I believe that it is fundamental to take into account the policy and institutional setting under which decentralization occurs, and be aware of the potential risks that decentralization entails. In this regard my research is more in agreement with the critical theories of decentralization, at least in some respects. First, I believe that municipalities in Mexico still suffer from several institutional weaknesses, resulting from a long period of political centralization in the country, that has precluded many of them to effectively undertake the responsibilities that decentralization policies have transferred to them. As a consequence, the potential for an efficient provision of

services is limited from the fact that many municipalities in Mexico continue being highly dependent on the resources from higher government levels. Another aspect in which my research agrees with the critical literature is its reservation about the capacity and willingness of local politicians and bureaucracies to be accountable both to the federal government and to local citizens. In the Mexican case, although municipal governments have acquired more spending responsibilities and additional intergovernmental resources to carry out new tasks, it is still unclear whether they are now more accountable than they used to be in the past. Even though they currently operate under a much more competitive electoral environment, problems in the design of the decentralization policy may still be preventing them to be more responsive to their citizens. For example, the creation of a federal fund for basic municipal infrastructure in 1998 might have diminished the incentives of local officials to effectively enforce the collection of own-source revenues, which would confirm the hypothesis that, under a decentralized system, local and sub-national governments tend to shift their spending choices to national taxpayers, rather than bear that cost locally. In Chapter 4, I further investigate this issue. Another example, also related to the creation of the transfer fund for municipal infrastructure development, is the common belief that the compensatory objectives of decentralization get distorted as soon as the implementation of policy reaches the municipal level. This adverse outcome would be likely to occur under a context characterized by weak intergovernmental mechanisms for policy oversight, by the propensity of local mayors to centralize decision-making without the real participation of citizens, and by a widespread use of political considerations in the allocation of resources at the very micro level. These issues are explored in Chapter 5, using one Mexican state as a case study.

A recurrent theme that many authors have embraced is the role that party alternation has played in transforming the traditional approaches to local governance. In the earliest years of opposition governments in Mexico, the new administrations were eager to convince the electorate that they represented a genuine departure from the traditional PRI governments, thus they had big incentives to adopt innovative managerial and policy styles. Now that electoral competition and party alternation have become a normal fact in Mexican local politics, it is relevant to know whether those incentives for good governance still persist, and if they have also permeated the PRI local administrations. This dissertation examines this question in several chapters.

A topic that the literature has considerably overlooked are the policy consequences of vertically divided (or juxtaposed) governments. Although some research has emphasized that electoral competition has broadened the autonomy of local and sub-national politicians with respect to higher political levels, less attention has been placed in understanding the performance of local governments whose party banner diverges from the party membership of state or federal authorities.<sup>50</sup> Although some works have shown that higher levels of government might punish disloyal voters by withdrawing funds from the lower political levels, they have not sufficiently stressed that opposition party governments are particularly motivated to improve their performance in order to respond to the demands of their constituencies. This dissertation will explicitly address the issue of governmental juxtaposition in explaining performance.

Finally, given the widespread interest in the role that social participation plays in local governance, this research includes it as a potential explanatory factor of local performance. For the classical decentralization literature, social participation was not considered as an important condition for an effective governance. However, it might be

---

<sup>50</sup> A notable exception is the recent study by Flamand (2004) on the influence of vertically divided governments on promoting an effective federal arrangement in Mexico.

the case that local voters do not only make use of the available “exit” mechanisms to compel authorities to improve their responsibilities, but they can also use their “voice” for that purpose. In other words, we can think of government performance as responding both to “supply” and “demand” stimulus. The supply side of the argument hypothesizes that incumbent policymakers will positively react to a competitive environment that puts their political survival at risk, by closely matching their decisions to the preferences of the electorate. On the other hand, the demand side accentuates the ability of citizens to affect policy outcomes, either by exerting pressure over their authorities (i.e. by mobilizing, lobbying and protesting), or by facilitating the formulation, implementation and monitoring of local policies (i.e. conveying better information for the definition of priorities, contributing to the funding of projects, inducing the cooperation of their communities, etc.). The basic assumption behind demand-side arguments is that the existence of social norms of trust and reciprocity are key elements in promoting the cooperation of people, and consequently the effective operation of governance institutions, as social capital theorists, such as Robert Putnam, have claimed. Thus, besides looking at the potential influence of local competitive elections to improve the performance of municipal governments, my analysis also investigates whether performance is responsive to a more participatory environment where people are highly mobilized and better educated.

## **Chapter 3**

### **Electoral Competition, Public Service Provision, and the Institutional Capacity of Mexican Municipalities**

This chapter investigates whether the changing political environment at the municipal level in Mexico is driving improvements in the provision of basic public services and in the processes through which local governments develop their institutional capacities. If the vote of local constituents is regarded as an effective mechanism to punish ineffective leaders, we might expect that local policymakers would find it in their best interests to improve the provision of public goods. At the same time, the increase in the competitiveness of local elections has enabled the alternation of parties in municipal governments, an outcome that was uncommon during the many decades in which a single party, the PRI, practically monopolized all elected positions in the country. It has been pointed out that the arrival of opposition parties to power introduced considerable changes in the styles of local governance, gradually replacing the usual “machine politics” approach (characterized by strong party-government relationships and a low degree of technical rationality in decision-making) for alternative styles in which local governments put a greater emphasis on technical criteria for their policymaking, combined with a more intensive use of public consultation mechanisms for agenda-setting (Ward, 1998). This chapter explores whether the alternation of parties, beyond having changed the policy and managerial styles in local governance, has improved the outcomes of publicly provided services. Finally, the local electoral environment in Mexico has become also more participative, as levels of voter turnout have increased over the past two decades. If voter turnout is regarded as a sign of political awareness



and interest among citizens, it is important to explore whether this factor has also had any impact on the performance of local governments.

The analysis focuses, first, on a set of services that Mexican municipalities were constitutionally required to provide since the 1983 reform to article 115 of the national constitution. In addition to these performance outcomes, the chapter addresses the processes of institutional capacity building, that is the development of managerial and organizational capacities enabling local governments to deal with the day-to-day tasks. Using data from nearly all municipalities in the country, I test the hypothesis that improvements in public service coverage and institutional development can be explained by increases in electoral competition, party alternation, and voter turnout in municipal elections. Before presenting the two statistical analyses, the chapter describes the evolution of the electoral environment of Mexican municipalities over the past decade, highlighting the increasing levels of electoral competitiveness and voter participation, and showing the substantial variations in competition that exist across the country. Also, the chapter provides an explanation of the strategies employed to measure the concepts of electoral competition and local government performance.

### **3.1. ELECTORAL COMPETITION IN MEXICAN LOCAL GOVERNMENTS**

At the end of the 1980s, the political environment of local governments started to undergo remarkable transformations. One of the most important features of this change was the gradual erosion of the hegemony of the PRI in municipal elections. Figure 3.1 shows the evolution in the electoral strength of the three most important parties in the country: the PRI, the PAN, and the PRD. In 1990 the levels of electoral support for the PRI in municipal elections were close to 70 percent, while each of the other two parties

received less than 20 percent of the total vote. However, this situation has been changing throughout the last decade, in parallel with the progressive decline in electoral support for the dominant party. The fall in support was particularly striking in 1995. From 1998 to 2001, the PRI's share of the vote in municipal elections stabilized at around 43 percent. In the meantime, the PAN has progressively increased its own share of the vote in local elections, making it the second most important electoral force in Mexican municipalities. The third most important party at the municipal level is the PRD, although the evolution of its electoral strength has not been steady.

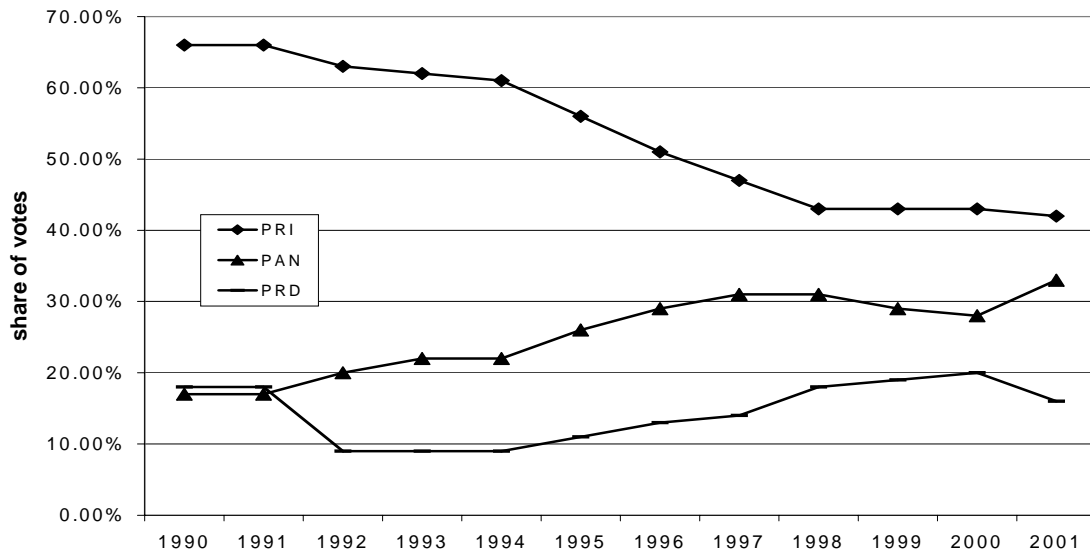
The increase in electoral competition across the country has often given rise to the alternation of parties in municipal governments.<sup>51</sup> For example, while in 1990 the PRI controlled 96 percent of all the municipalities in the country, in 2001 it governed 70 percent.<sup>52</sup> Although at first glance this change does not seem to be very drastic, consider Figure 3.2, which displays the evolution of the percentage of the Mexican population (not including the DF) who lives in municipalities not governed by the PRI. Whereas in 1990 almost 90 percent of the population of Mexico was governed by the PRI in the municipal level, in 2001 more than half of the total residents in the country were governed by a municipal government controlled by a party other than the PRI. The alternation of parties has become a normal feature of local politics, although most of this alternation has taken place between the three most important national parties. During the 1990-2001 period, 22 percent of all municipalities in the country had experienced the alternation of parties in local government at least on one occasion.

---

<sup>51</sup> The first experiences of opposition government in the country took place at the municipal levels, especially in cities located in the northern region of Mexico, where the PAN was the first to defeat the dominant party. For an appraisal of these experiences at the state and municipal levels in northern Mexico see Guillén-López (1993), and Rodríguez and Ward (1992, 1994, and 1995).

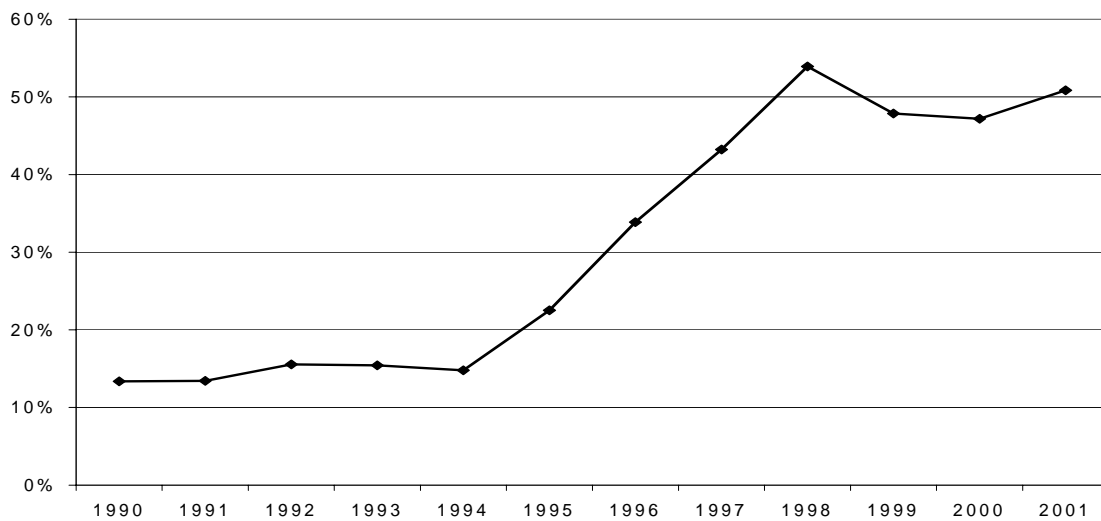
<sup>52</sup> Appendix A reports the distribution of municipal presidencies across parties in each Mexican state, from 1989 to 2001.

FIGURE 3.1. Electoral Strength of Parties in Municipal Elections in Mexico, 1990-2001.



Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx))

FIGURE 3.2. Percentage of the Mexican population living in a municipality governed by a party other than the PRI (DF excluded)



Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx))

In order to evaluate to what extent the increase in the competitiveness of the electoral environment at the local level has translated into better governmental outcomes, we first need to have a good measure of electoral competition. In the political science literature, there are several indicators regarding the effective number of parties in a political system, such as those developed by Herfindahl (1950), Laakso-Taagepera (1979), or Molinar (1991b), the latter of which has been extensively used in studies of the party system in Mexico. For the purposes of this analysis, a measure of electoral competition should stress the risk faced by incumbent parties to lose power, since this is precisely what might motivate elected officials to improve their performance. One useful indicator is the margin of victory between the two principal contenders. Specifically, an electoral competition index can be defined as the difference in the share of votes obtained by the two strongest parties in a local election (i.e., the difference in the number of votes obtained by each, divided by the sum of votes for all parties that participated in the election). Therefore, the highest value the index can take is 1, indicating that the level of competition was the lowest, since a single party obtained the totality of votes in an election (i.e., the party was actually uncontested). Conversely, a value close to 0 would imply that the election was extremely competitive.<sup>53</sup>

In order to illustrate why the margin of victory index is a better indicator of the degree of competition in an election, compared to the number of effective number of parties, consider the following example. Assume that the PRI obtained 50 percent of the vote, the PAN 45 percent, and the PRD only 5 percent. In this case, the margin of victory index would be equal to 0.05, describing a rather competitive environment, and the

---

<sup>53</sup> Strictly speaking, the margin of victory is an index of the non-competitiveness of elections because increases in its value implies a reduction in electoral competition. I thank Chandler Stolp for this remark.

number of parties derived through the Laakso-Taagepera index would be equal to 2.2.<sup>54</sup> If we slightly modify this scenario by assuming that the PAN received 40 percent of the vote, and the PRD ten percent (with no changes in the share of vote for the PRI), the margin of victory index would increase to 0.1, thus describing a less competitive environment, since the distance between the two strongest parties has increased. However, the number of parties estimated via the Laakso-Taagepera method would increase to 2.38. That is, although the first scenario is clearly more competitive than the second, the number of parties is smaller under the first. In sum, relying on the Laakso-Taagepera index as a measure of competition may create problems, since it better describes the fragmentation of a party system, rather than the actual level of competitiveness. Therefore, in all subsequent analyses the margin of victory will be used to measure electoral competition.

Table 3.1 shows the Pearson correlation coefficients of four alternative measures of electoral competition. Except for party alternation, all the rest are highly (although not perfectly) correlated. The margin of electoral victory has its stronger correlation with the proportion of votes for the PRI, the reason for which in Mexico is obvious: increases in the levels of political contestation have implied the deterioration of the electoral strength of the dominant party, especially in the first years of the decade. Also worth mentioning is the lower level of statistical association between party alternation and the other four measures of competitiveness, which implies that alternation and electoral competition are not measuring the same phenomena: although alternation implies the existence of a competitive electoral system, the reverse is not necessarily true.

---

<sup>54</sup> The Laakso-Taagepera index of the number of parties in a political system,  $N$ , is defined as follows.  $N = 1 / \sum_{i=1}^n p_i^2$ , where  $n$  stands for the number of parties contending in an election, and  $p_i$  is the proportion of votes of the  $i^{\text{th}}$  party (Laakso-Taagepera, 1979).

TABLE 3.1. Pearson Correlations between Alternative Measures of Electoral Competition in Mexican Municipal Elections, 1990-2001

	Margin of victory	Laakso-Taagapera index	% of PRI vote
Laakso-Taagepera index	-0.81		
% of PRI vote	0.91	-0.86	
Alternation	-0.38	0.35	-0.49

All coefficients are significant at the 0.05 level.

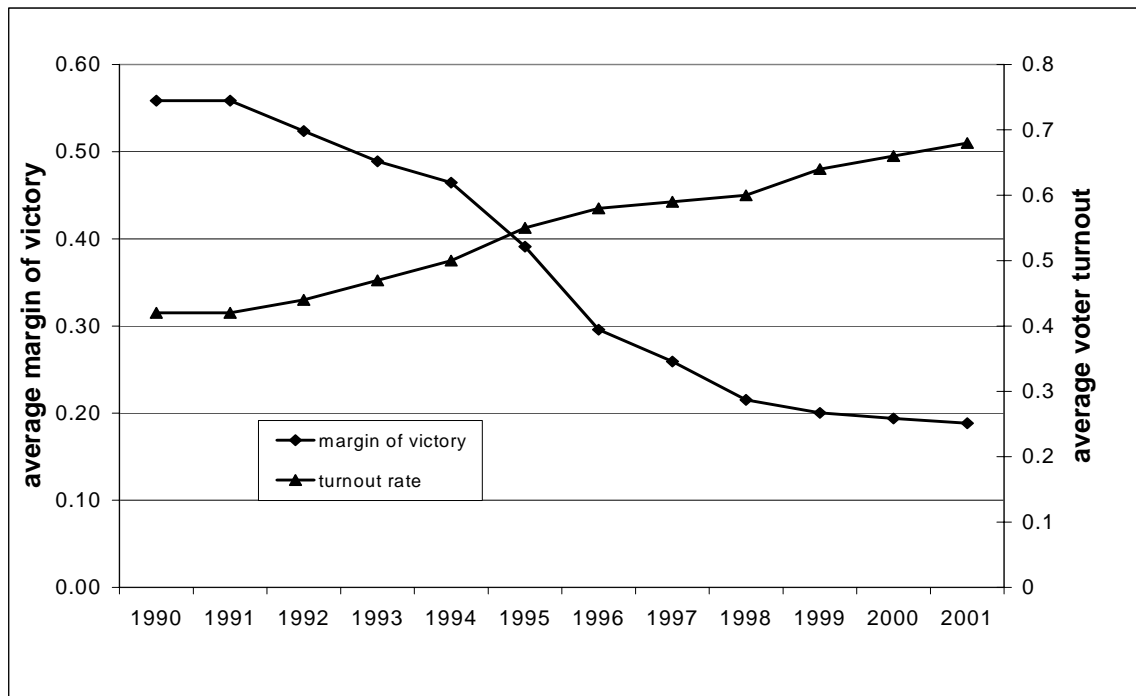
Sources: Elaborated on the basis of CIDAC database on municipal elections ([www.cidac.org.mx](http://www.cidac.org.mx))

Figure 3.3 displays the evolution of the electoral competition index between 1990 and 2001. The change has been remarkable, since the relative margins of victory have consistently declined throughout time. While in 1990 the average margin of victory was close to 0.6, in 2001 it was under 0.2. The same figure also displays the evolution of the voter turnout rate, which has been rising during the whole period, reaching almost 70 percent in 2001.<sup>55</sup> In other words, not only has the local electoral environment in Mexico become more competitive, but also more participatory.

---

<sup>55</sup> Incidentally, the turnout rate in local elections is only moderately correlated with the turnout rate in national elections (the Pearson correlation coefficient is 0.35), which strongly suggests that municipal elections in Mexico have acquired its own independent character.

FIGURE 3.3. Evolution of Electoral Competition and Voter Turnout in Municipal Elections, 1990-2001.

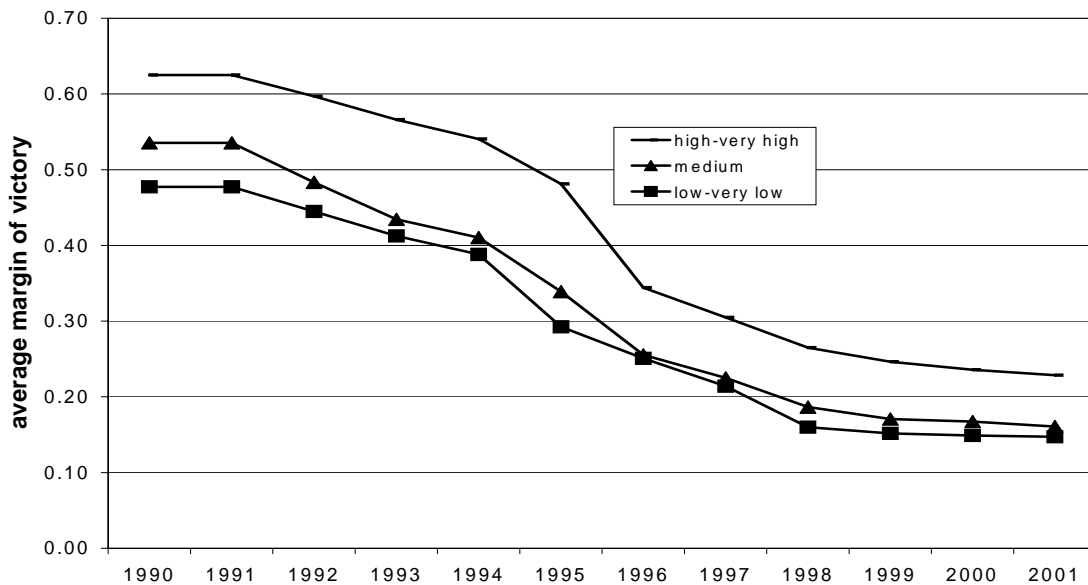


Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx))

Evidently, the evolution of electoral competition and voter turnout has not been the same across all municipalities in the country, particularly if we consider that differences in socioeconomic well-being can be associated to different electoral conditions. Specifically, elections in municipalities characterized by higher incomes, superior educational levels, and better access to services, will tend to be more contested, as compared to poorer municipalities (particularly in rural areas), where local bosses or *caciques* still monopolize political power using traditional mechanisms of control, including patronage practices and even violence. This proposition can be confirmed by looking at Figure 3.4, which displays the evolution of local electoral competition according to the index of municipal socioeconomic deprivation developed by CONAPO

(Mexico's Population Council).<sup>56</sup> Although the margins of victory have significantly declined throughout the decade for all municipalities, regardless of their level of socioeconomic well-being, there have been always marked differences in the levels of electoral competition between the three categories, but especially between the two extreme cases of socioeconomic deprivation. Therefore, any attempt to analyze the effects of electoral competition on the performance of local governments should always control for socioeconomic conditions, in order to avoid biases caused by the omission of a fundamental variable.

FIGURE 3.4. Margin of Victory in Municipal Elections, by Level of Socioeconomic Deprivation, 1990-2001.



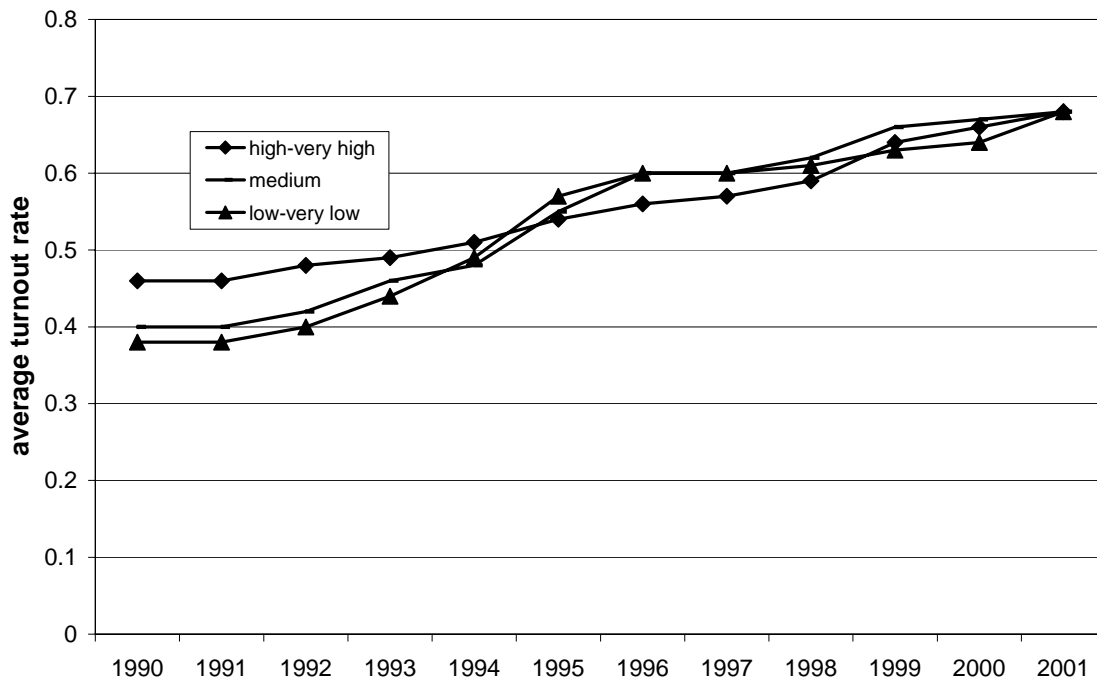
Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx)) and on CONAPO (2001).

<sup>56</sup> The CONAPO index of social deprivation is a combined measure of several forms of social exclusion (i.e. the lack of access of households to basic services such as education, water, electrification, monetary income, etc.), thus it can be regarded as a good summary of social well-being at the municipal level (see CONAPO, 2000). Although the index is commonly broken into five social deprivation categories, ranging from "very high" to "very low", I collapsed them into three ranks only, in order make the graph more legible.



Is voter turnout also affected by socioeconomic factors? The answer is not as obvious as in the case of competition, as it can be clearly observed in Figure 3.5, which again displays the evolution of the local turnout rate in terms of the same three socioeconomic categories. In the first three years of the decade, differences in turnout rates were more visible across the three type of municipalities, being the most disadvantaged the ones whose turnout levels where the highest. In my view, this reflects that voter turnout was heavily induced by the dominant PRI through its traditional means of political mobilization, since poorer municipalities were more susceptible to be manipulated by means of clientelistic practices. However, for the rest of the decade these differences became less obvious, and they practically disappeared in municipalities that had elections in 2001. The diminishing in turnout differences across socioeconomic levels might possibly suggest that, as the other parties became stronger in the electoral arena, the mechanisms of political mobilization in the country had to be diversified, not being exclusively aimed at poorer areas.

FIGURE 3.5. Voter Turnout Rates in Municipal Elections, by Level of Socioeconomic Deprivation 1990-2001



Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx)) and on CONAPO (2000).

What consequences has the rise in electoral competition and voter participation had in terms of the performance of local governments? Has electoral competition changed the incentives of local politicians in such a way that they have become more accountable to their constituents? Has the participation of voters improved the responsiveness of municipal governments? I will try to provide an answer to these questions in the sections that follow.

### **3.2. MEASURING GOVERNMENT PERFORMANCE**

Two different dimensions of government performance are commonly used in studies of democratic governance and public management.<sup>57</sup> The first dimension stresses its policy efficacy component: the capacity of governments to generate socially desirable outcomes. The second emphasizes its procedural component: the ability of governmental organizations to effectively carry out their day-to-day tasks. To measure the policy efficacy component of government performance, I will utilize rates of public service coverage, since the provision of basic services constitutes, in my view, what the average citizen can expect as a minimum from their local authorities, regardless of any ideological or party concerns. Furthermore, the provision of public services in Mexico is a constitutional mandate, and the local levels are assigned very specific areas of responsibility. To measure the procedural component of performance, I use indicators reflecting the willingness of municipal governments to create impersonal rules to control their internal organization and their propensity to base their appointment decisions more on the basis of competence and skill, rather than on personal favoritism or political patronage. Section 3.6 in this chapter provides further details on this second performance dimension and its operationalization.

According to article 115 of the national constitution, municipal governments are responsible for the provision of the following services: a) potable water, drainage and sewage systems; b) public lighting; c) trash collection; d) public markets; e) cemeteries; f) slaughterhouses; g) streets and public parks; and h) public and road safety. Ideally, a measure of local government performance should include the totality of services under

---

<sup>57</sup> Within the public management tradition see, for example, the collection of essays in Heinrich and. Lynn (2000). Performance indicators developed from the perspective of democratic governance theory can be found in Putnam (1993).

municipal control, however there are data limitations that prevent us to adopt such a comprehensive approach. Information on coverage levels are only available for water, drainage, and electrification (although the latter is not an expenditure area under the responsibility of municipal governments) through the Mexican population censuses conducted by INEGI (the Mexican Census Bureau) in 1990 and 2000. For the remaining services, the only sources available are two municipal development surveys (*Encuesta sobre Desarrollo Municipal*) conducted by INEGI in 1995 and by INEGI and INDESOL (Institute for Social Development, a decentralized agency ascribed to the Social Development Ministry in Mexico) in 2000.<sup>58</sup> However, it should be noted that, in contrast to the population censuses, the respondents of these surveys were municipal presidents rather than private households, and the figures they report (in percentage terms) constitute only their perception of service coverage within their municipalities, but not a rigorous measurement. Furthermore, it is likely that the service coverage figures conveyed by municipal presidents are upwardly biased, especially in the cases of municipalities undergoing high levels of electoral competition, since local mayors in those towns would have a special incentive to overstate service coverage.<sup>59</sup> Given that the survey data do not have the same level of reliability compared to data from the population census, the analysis and discussion will concentrate on coverage levels of water, drainage, and electrification. In addition, water and drainage are the services municipal authorities regard as their two principal priorities, thus we should expect that they would put more effort in improving coverage for these two areas.<sup>60</sup>

---

<sup>58</sup> These surveys are actually censuses, since the totality of Mexican municipalities were included in the study.

<sup>59</sup> I thank Raul Madrid for this observation.

<sup>60</sup> According to the Survey on Municipal Development carried out in 2000, the provision of potable water was regarded as being the main priority by 79 percent of all local mayors in the country. The second place was mainly distributed between drainage (42 percent), public lighting (19 percent), and public safety (17 percent). The survey did not address electrification.

In the cases of water, drainage, and electrification, coverage is defined as the proportion of households in a municipality that report having access to each of these three services. However, getting access to services can take different forms. In the case of water, the Mexican census reports five types: 1) water inside the dwelling, 2) water outside the dwelling but at least within the terrain where the dwelling is settled, 3) water carried from the street, 4) water carried from other dwellings, 5) water carried from standpipes, rivers, wells, etc. For the purposes of this work, I will focus only on the first four categories, since they all imply the existence of some sort of public system for water provision. In other words, my measurement of water coverage is the proportion of households with access to water, except those that have to carry it from standpipes, rivers, wells, and other watercourses. With respect to drainage coverage, I will concentrate only on households whose sewer is connected either to the street or to a septic tank, thus excluding those cases for which drainage means basically the use local watercourses.<sup>61</sup> Again, the logic behind this choice is to focus only in sewerage systems that imply some form of public involvement. The census does not distinguish among the types of access to electric energy.

One potential problem with measuring performance through the levels of service coverage is that we might encounter a problem of path-dependency: municipalities exhibiting high coverage levels any point in time are very likely to display high coverage rates at any other moment. Since people tend to concentrate on areas already populated, service coverage in these areas will have to be higher than for smaller cities. As a consequence, governments in metropolitan areas would always be rated as “high performers”, while those of smaller municipalities would be identified as ineffective. Therefore, it is crucial to control for the coverage levels that municipalities had at the

---

<sup>61</sup> These are the only three types of access to drainage reported by the Mexican census.

beginning of the period analyzed. In other words, if our aim is to analyze the effect of electoral competition (and other possible influences) on the coverage that municipal services reached in year 2000, we should introduce the level of household coverage in 1990 as an independent variable that will serve as a baseline. A likely objection to my measure of government performance is that it does not track down the performance of specific local governments: municipal administrations last no more than three years, while my measurement of service coverage is based on data for year 2000, controlling for the coverage levels that municipalities had in 1990. Thus, the performance indicators cannot attach individual responsibility to each of the administrations that took place over the course of the last decade. Also, the ten-year gap might mask time variations in the institutional, political and economic environment of local governments that might have taken place during the years in-between. This limitation is due to the fact that the Mexican census is only conducted every ten years, and it constitutes the only available data source on coverage for these three services. Nevertheless, this limitation does not invalidate the analysis for a number of reasons. First, coverage levels do not change very much from one year to another, thus a ten-year interval adequately reflects how municipalities improved the access of people to services. In other words, the indicator provides us with a long-term picture of government performance. Second, even though we cannot observe how municipal administrations react to the electoral environment at specific points in time, we can still appreciate the cumulative effect of competition and voter participation on service coverage throughout an entire decade. Third, the ten-year interval covers the period in which electoral competition became prevalent in Mexican municipalities.

### **3.3. THE COVERAGE OF MUNICIPAL SERVICES: A DESCRIPTIVE OVERVIEW**

Like in most other Latin American countries, public service coverage in Mexico has improved over the past decade.<sup>62</sup> Nevertheless, there are still persistent problems of inequality of access to basic services across municipalities. Table 3.2 presents the descriptive statistics of the coverage levels for water, drainage, and electricity in 1990 and 2000. The table displays the information according to the form households get access to each service (excluding electrification, since the census does not make any distinction), and in terms of the population size of municipalities. Considerable variations in coverage are observed, depending on the how the service is made available to private households. For example, in the case of water, only 30 percent of households had access to the service inside their dwellings at the beginning of the decade; ten years later, water coverage had increased only five percent within this category. In contrast, when water is accessed by households through other forms (that is when they have to carry it from outside their dwellings), their coverage is always higher. Something similar occurs in the case of drainage, since coverage is lower when its provision implies that the service is connected only to the public sewage system (23 percent of households were covered in this form in 1990 and 35 percent in 2000), but it increases when drainage access includes connections to septic tanks and watercourses. In short, for any year coverage is always higher in cases where access to the service implies an “inferior” kind of supply or, in other words, when services are made available to the people without the existence of a public system of provision.

---

<sup>62</sup> For an updated report on service coverage in Latin America see Fiszbein (2005).

TABLE 3.2 Water, drainage, and electrification coverage in Mexican municipalities, 1990 and 2000 (proportion of households covered per municipality)

Service	Form of access to the service	Year	Whole sample	By population size		
				<i>less than 50 thousand</i>	<i>50,000 to 200,000</i>	<i>more than 200 thousand</i>
WATER	Inside dwelling	1990	30	27	41	63
		2000	35	32	48	71
	Inside dwelling or terrain	1990	62	60	70	85
		2000	75	73	78	92
	Inside dwelling, terrain, or street	1990	66	65	73	88
		2000	79	78	82	93
DRAINAGE	Connected to the street	1990	23	19	40	68
		2000	35	31	52	80
	Connected to the street or a septic tank	1990	33	29	50	76
		2000	51	48	66	88
	Connected to the street, septic tank or any watercourse	1990	37	33	53	78
		2000	56	53	71	90
ELECTRIFICATION		1990	76	74	84	94
		2000	89	88	94	98

Source: Elaborated on the basis of INEGI, Censos de Población y Vivienda 1990 and 2000 ([www.inegi.gob.mx](http://www.inegi.gob.mx))

Given the huge heterogeneity that characterizes the municipalities of Mexico (principally in terms of population size), it is important to look at the differences in service provision across population categories.<sup>63</sup> The same table displays the descriptive

<sup>63</sup> More than 80 percent of the 2427 municipalities in the country have less than 50 thousand people.



statistics of service coverage according to three population ranges. As expected, the levels of coverage for the three services at any point in time are lower for smaller municipalities, while larger cities present coverage rates close to 100 percent, particularly in year 2000. This is explained by the fact that very small municipalities tend to be poorer, rural, and of a more agricultural economic structure. Their welfare needs generally consist of meeting the minimum living standards, since they lack the most basic services. At the same time, residents in smaller localities tend in general to be more dispersed across the territory, and thus economies of scale in the provision of basic services cannot be fully exploited. Drainage coverage levels remain particularly low within this group of municipalities: only 31 percent of households living in municipalities of less than 50 thousand people had access to drainage connected to the street in year 2000, and no more than 48 percent of families had a drainage connected either to the street or to a septic tank. This figure is critical, given that sanitation services are essential for improving the welfare conditions of people. In the case of water things are not very different. The majority of Mexican municipalities attained 32 percent water coverage inside dwellings in year 2000, compared to more populated municipalities for which this type of coverage reached 48 percent (in medium-size municipalities) and 71 percent (in the most populous cities). Yet again, water coverage is higher for any group when it is accessed from outside the dwelling, though coverage differences persist across population categories. Electrification is the service whose coverage rates are higher, since even the less populated municipalities presented a reasonable indicator (89 percent of coverage in 2000). In summary, despite the fact that the average levels of service coverage have improved for water, drainage, and electricity throughout the ten-year

period analyzed, smaller municipalities still lack a reasonable level of access to those services, particularly in the case of drainage.

Table 3.3 displays the average coverage levels of the other public services that Mexican municipalities are legally responsible to provide, according to the survey data reported by municipal presidents in 1995 and 2000. Once more, figures are presented according to municipal population sizes, but this time the table makes a distinction between the municipal seat (*cabecera municipal*) and the rest of the localities that integrate the municipal territory. Despite the problems previously noted regarding these data, it nevertheless provides a reasonable description of the evolution of service coverage.<sup>64</sup> Three clear patterns can be observed. First, as in the cases of water, drainage, and electrification, coverage in all these other services increased from 1995 to 2000.<sup>65</sup> Rates of growth were higher in smaller municipalities and in localities outside county seats. Second, less populated municipalities exhibit, yet again, lower coverage levels at any point in time, thus reflecting their low general welfare conditions and their rural nature. This also explains that service coverage grew faster in smaller municipalities, given that their initial coverage levels were lower. Third, the table reveals that municipal seats are invariably better endowed with municipal services vis-à-vis the remaining localities, which might possibly result from the fact that population tends to be more concentrated on county seats, thus requiring more services. However, it might also be the case that municipal authorities tend to give preferentiality to county seats as a result of their higher electoral importance.

---

<sup>64</sup> Also bear in mind that respondents were not the same in 1995 than in 2000, given that municipal presidents last no more than three years in office.

<sup>65</sup> Cemeteries constitute the only exception, since their coverage remained around 86 percent for the whole sample of municipalities. However, differences in coverage persist across the three population size categories, and between county seats and the rest of localities.

TABLE 3.3. Coverage of other municipal services in 1995 and 2000 (in percentages)

	Whole sample			By population size					
	Year	Within county seat	Outside county seat	Less than 50 thousand		50,000 to 200,000		More than 200 thousand	
				Within county seat	Outside county seat	Within county seat	Outside county seat	Within county seat	Outside county seat
Road safety ( <i>tránsito y vialidad</i> )	1995	40	16	35	13	63	28	74	48
	2000	63	44	61	43	71	47	69	52
Public transportation	1995	63	42	61	39	78	58	83	63
	2000	73	56	71	54	83	65	81	69
Public safety	1995	78	51	78	50	76	52	82	64
	2000	82	63	82	63	80	61	79	69
Slaughterhouses	1995	40	8	35	5	67	18	69	36
	2000	62	29	58	26	75	37	82	59
Cemeteries	1995	87	61	87	60	86	65	81	72
	2000	86	70	86	70	85	72	85	75
Parks	1995	58	23	56	21	69	33	75	51
	2000	72	49	70	47	77	54	82	68
Road maintenance ( <i>pavimentación</i> )	1995	51	17	48	15	64	25	70	42
	2000	62	36	61	35	68	40	75	48
Public markets	1995	22	4	17	3	39	11	66	31
	2000	56	29	52	24	72	44	83	60
Trash collection	1995	69	29	67	27	77	37	85	58
	2000	78	53	77	53	81	51	85	63
Street lighting	1995	81	55	81	55	83	58	88	69
	2000	85	67	85	67	83	64	88	69

Source: Author's elaboration based on data from Censuses of Municipal Development (*Censo de Desarrollo Municipal*) conducted by INEGI in 1995 and INEGI and INDESOL in 2000

It should be noted that municipal governments do not necessarily provide public services by themselves: they can sign cooperation agreements with other government levels (i.e. state and federal), form partnerships with other municipalities, or they can even contract out the operation of services with private firms. However, the majority of

municipalities in the country have opted to provide most of these services directly, as the 2000 Survey of Municipal Development shows. In the case of potable water, for example, 62 percent of municipalities provide the service directly, while 20 percent supplied the service through state agencies, 12 percent in collaboration with the communities, and less than one percent (17 municipalities) had outsourced its provision with private companies. Something similar occurs in the case of drainage, where 65 percent of all municipalities directly provide the service, while the rest rely on other governmental levels (10.4 percent), on their communities (under 7 percent), and there is a significant proportion reporting that this service is simply nonexistent (13 percent). For the remaining services, we observe once more that most municipalities have opted for their direct provision, except for public transportation, where 65 percent have contracted out its operation with private businesses.

### **3.4. AN EMPIRICAL PUBLIC SERVICE PROVISION MODEL**

This section presents a statistical analysis of the influence of electoral competition, party alternation, and voter participation on the rates of coverage for water, drainage, and electrification. Data come from the 1990 and 2000 population censuses. The number of households with access to the service was divided by the total number of households in the municipality, in order to obtain the rates of service coverage for each service (and for each year, being service coverage in 2000 the dependent variable, and the coverage in 1990 the control variable).

The key independent variables of the analysis are electoral competition, party alternation, and voter turnout. Competition is measured as the difference in the proportion of votes obtained by the two strongest parties in a local election. The data

source for this variable is the electoral database compiled by the Mexican think-tank CIDAC (Research Center for Development), which contains the distribution of votes across all parties contending in local elections from 1980 to 2001. Given that the dependent variables can be measured only at two points in time, it is not possible to perform an analysis based on variations taking place year-by-year. Instead, electoral competition is expressed in terms of its annual average all over the 1990-2000 period. This implies that the analysis reflects the long-term effect of electoral competition on service coverage. The same measurement approach is utilized for the other two independent electoral variables: party alternation, and voter turnout. In the case of alternation, it indicates whether a municipality had been governed by a party different than the hegemonic PRI at least once during the 1990-2000 period. Another factor included in the analysis is the level of voter turnout. This variable is introduced as a proxy for the level of civic engagement in public life. The expectation of many authors supporting the “participatory approach” to local governance is that the involvement of citizens in public affairs would foster the quality of governmental institutions. However, we should be careful with the interpretation of voter turnout, since it might well reflect the capacity of parties to mobilize people in electoral times, rather than the level of “social capital” in a society. Once more, this variable is measured as the turnout rate annual average (i.e. the total number of votes divided by the potential number of voters) during 1990-2000.

The control variables in the model regard the fiscal capacity of local governments and the sociodemographic characteristics of the population. Under the first category I include the total budget constraint of municipal governments. This concept encompasses all fiscal revenues collected by municipal authorities (property taxes, user fees, and other surcharges), as well as the unconditional transfers from other governmental levels,

particularly revenue-sharing grants from the federal government. This variable controls for the fiscal capacity of each municipality in contributing to the provision of basic services. The budget constraint is expressed in real per capita terms.<sup>66</sup> The data come from a dataset compiled by INEGI on municipal revenues and expenditures from 1989 to 2000.<sup>67</sup> The set of socioeconomic variables in the model are the following. First, the geographic dispersion of people across the municipal territory is included to control for the fact that basic services are more costly to provide in isolated areas than in more concentrated zones. It is measured as the proportion of localities with less than 1000 residents. The population size of the municipality and the rate of population growth between 1990 and 2000 are also included in order to control for the levels of public service need at the local level. Literacy rates (the proportion of people between ages 6 to 14 who know how to read) are introduced as a proxy for the level of education in municipalities, under the expectation that better educated people will be more effective in lobbying their government authorities to obtain more services. As I have pointed out in the section describing the evolution of electoral competition, controlling for the level of socioeconomic development of municipalities is required to avoid a problem of omitted variable bias in the estimation. Thus, the model introduces the proportion of people

---

<sup>66</sup> It is important to point out that the other two levels of government (state and federal) are also involved in the financing of services, either through their own regional infrastructure projects, or by transferring money to help communities building up small-scale project for social development. No systematic data on these other spending categories exist in Mexico, thus it was impossible to include it in the regression analysis. The estimation also excludes the earmarked transfers for basic infrastructure introduced by the national government in Mexico in 1998 (the *Fondo de Infraestructura Social Municipal*, belonging to the federal budgetary item *Ramo 33*) for two reasons. One is that the fund started to operate until the last three years of the decade analyzed, thus it is very unlikely that it could have had a real impact on service coverage. But the most important reason for not including it is that the fund is distributed across municipalities, at least in part, according to their levels of need for services such as water, drainage, and electrification. In consequence, the variable would introduce a problem of simultaneous causality.

<sup>67</sup> The data can be accessed on-line through INEGI's *Sistema Municipal de Bases de Datos* (SIMBAD) at [www.inegi.gob.mx](http://www.inegi.gob.mx)

earning less than the official minimum wage as a measure of municipal poverty.<sup>68</sup> State dummies were incorporated as well (taking Aguascalientes as the comparative case), given that states might have an unobservable effect on coverage performances. All the models include as an independent variable the level of service coverage at the beginning of the period (i.e. the level of coverage in 1990). Municipalities are the units of observation. The following equation provides the general specification of the estimation models:

$$Y_{i,2000} = B_0 + B_1EMARGIN_i + B_2ALTERN_i + B_3TURNOUT_i + B_4BUDGET_i + B_5DISPER_i + B_6POP_i + B_7DEMGROWTH_i + B_8POVERTY_i + B_9LITERACY_i + B_{10}Y_{i,1990} + \sum_j \delta_j STATE_{ji} + \varepsilon_i$$

where

$Y_{i,2000}$  is the proportion of households with access to the service in 2000.

$EMARGIN_i$  is the ten-year average of the difference in the proportion of votes obtained by the two strongest parties in municipal elections.

$ALTERN_i$  is a dummy variable taking a value of 1 if municipality  $i$  underwent a party change in its government at least once during the 1990-2000 period, and zero otherwise.

$TURNOUT_i$  is the ten-year average of voter turnout (i.e. the total number of votes in a local election, divided by the number of potential voters, specifically those who were at least 18 years old).

$BUDGET_i$  is the ten-year average of the real per capita amount of municipal budget resources (including local taxes and fees, and federal revenue-sharing transfers).

$DISPER_i$  is the proportion of localities in the municipality with a population less than 1000 inhabitants.

$POP_i$  is the population size of the municipality.

$DEMGROWTH_i$  is the rate of population growth between 1990 and 2000.

---

<sup>68</sup> The CONAPO index of social deprivation is not included because the proportion of people who do not have access to basic services constitutes one of its components, creating a problem of reciprocal causation.

$POVERTY_i$  is the proportion of people receiving less than the official minimum wage.

$LITERACY_i$  is proportion of people between ages 6 to 14 who know how to read.

$STATE_{ji}$  is a dummy variable taking a value of 1 if municipality  $i$  belongs to state  $j$  (for  $j=1, \dots, 30$ ) and zero otherwise (one of the 31 states in the country is excluded to avoid perfect collinearity).

$Y_{i,1990}$  is the proportion of households with access to the service in 1990.

$\varepsilon_i$  is the disturbance.

Note that the previous model assumes that there is a linear relationship between service coverage and the remaining independent variables: for example, that for every additional increase in population, the proportion of households having access to local services will increase at a constant rate. This assumption might be unrealistic, especially if we take into account that coverage might increase in a non-linear way: the scope for furthering coverage is much more limited when a large proportion of households are already covered (i.e. coverage is close to 100 percent), compared to cases where the initial level of service coverage is relatively low. Also, since the dependent variables are all expressed in proportional terms, the predicted values may well fall outside the 0-1 range. In order to cope with these potential drawbacks, the model was estimated using the logarithmic transformation of the “odds ratio” of service coverage in 2000 as the dependent variable.<sup>69</sup> Figure 3.6 illustrates how the functional relationship between coverage and any other (continuous) independent variable would operate under this approach. First, the predicted values would never fall outside the 0-1 range. Second, the marginal effect of the independent variable on service coverage will vary depending at which point the function is evaluated, thus describing a more realistic situation. For

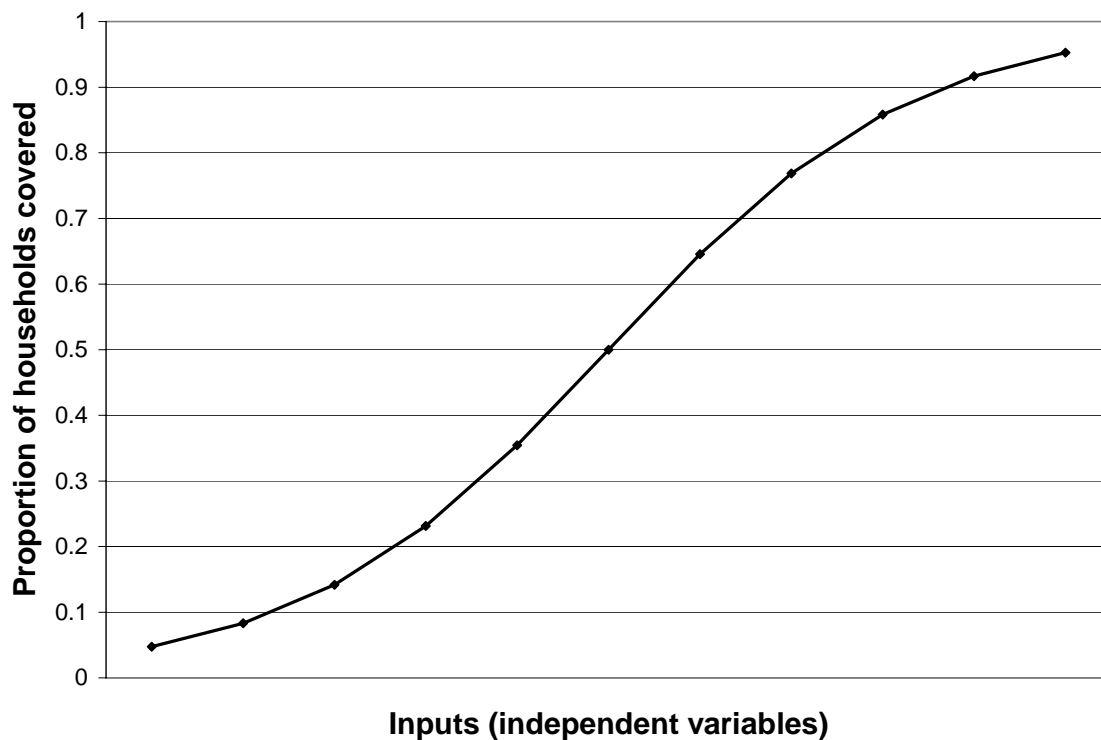
---

<sup>69</sup> The log-odds ratio is equal to the natural log of  $p/(1-p)$ , where  $p$  stands for the proportion of households covered by the service.



example, increases in budgetary availability would have their biggest effect on coverage before the budget reaches a certain level. Beyond that point, the capacity of the local budget to achieve further improvements on service coverage is much more reduced.

FIGURE 3.6. Stylized Representation of a Non-linear Service Coverage Function



My initial expectations about the signs of the coefficients of the three key political variables are as follows.  $B_1$  is expected to be negative (recall that a lower margin of victory indicates that electoral competition is stronger), given the proposition that municipal governments are more likely to improve their performance when facing a real threat of being thrown out of power. In the case of party alternation, the theoretical expectations are not very strong. At one of the extremes, we could regard alternation as

an extreme case of electoral competition, where incumbent authorities are not only threatened by other political competitors, but are actually removed from office. If this were the case, we might expect  $B_2$  to be positive, again supporting the proposition that competition improves performance. However, there are reasons to believe that the effect of party alternation on local performance could be negative, particularly if alternation worsens the typical policy and administrative instability that characterizes municipal governments in the country.  $B_3$  is expected to be positive, if high turnout rates actually act as an effective mechanism to foster governmental accountability. The model was estimated using ordinary least squares. Since the assumption of constant variance in the error term ( $\epsilon_i$ ) is often violated in cross-sectional analyses (particularly when dealing with very heterogeneous units, such as Mexican municipalities), heteroscedasticity-consistent standard errors are reported.

The regression results for water, drainage, and electrification are displayed in Tables 3.4, 3.5, and 3.6, respectively. Every table presents three columns, each of which represents an alternative model specification. Model 1 includes the initial rate of coverage as the only independent variable. This serves as a baseline to assess the explanatory power of subsequent specifications. Model 2 includes the three key electoral variables, excluding all sociodemographic controls as well as the budget constraint. Model 3 presents the full specification. Bear in mind that the regression coefficients reported do not have a straightforward interpretation, since they represent the marginal effect of an independent variable on the log-odds ratio of coverage, rather than on coverage simply.<sup>70</sup> In order to facilitate the exposition, results will be discussed in terms

---

<sup>70</sup> Finding out the effect of the independent variables on coverage requires some algebraic manipulations. Recall that the model specification when the dependent variable is expressed in terms of the log-odds ratio is the following:  $y = \ln[p/(1-p)] = B_0 + B_1X_1 + \dots + B_kX_k + \epsilon_i$ , where  $p$  represents the proportion of households with access to the service. In order to express this equation in terms of  $p$  (which is more intuitive for our purposes), we need to work out the value of  $p$ , using the following expression:  $p = \exp(y)/(1 + \exp(y))$ , and

of the effect of each relevant variable on the proportion of households covered, holding all other variables constant at their median value.<sup>71</sup>

TABLE 3.4. OLS Regressions on the Log-odds Ratio of the Drainage Coverage Rate

	Model 1	Model 2	Model 3
	<i>Only baseline included</i>	<i>Socioeconomic and budgetary controls excluded</i>	<i>Full specification</i>
Intercept	-1.757*** (0.036)	-1.518*** (0.201)	-4.098*** (0.46)
Baseline (drainage coverage in 1990)	5.414*** (0.074)	5.126*** (0.082)	4.042*** (0.095)
Margin of victory		-0.446*** (0.133)	-0.103 (0.115)
Alternation		-0.066 (0.096)	-0.057 (0.083)
Voter turnout rate		0.099 (0.156)	0.321* (0.167)
Total municipal budget (per capita)			0.001 (0.001)
Population dispersion			-0.503*** (0.125)
Population			0.001 (0.002)
Population growth			0.157 (0.091)
Poverty rate			-1.243*** (0.182)
Literacy rate			3.98*** (0.419)
N	1968	1953	1953
R-squared	0.772	0.797	0.840

Note: Huber-White standard errors in parentheses. N-1 (30) state dummy variables were included in all estimations except the first (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition.

\*\*\*p<.001 \*\*p<.01 \*p<.05

---

evaluate it keeping the value of the remaining independent variables constant (for convenience, I chose to keep them at their median values).

<sup>71</sup> The model was also estimated assuming a linear relationship between the variables, but the direction and statistical significance of the coefficients obtained did not change. I will not report those results here for ease of exposition.

TABLE 3.5. OLS Regressions on the Log-odds Ratio of the Water Coverage Rate

	Model 1	Model 2	Model 3
	<i>Only baseline included</i>	<i>Socioeconomic and budgetary controls excluded</i>	<i>Full specification</i>
Intercept	-1.298*** (0.074)	-0.830*** (0.164)	-1.171*** (0.432)
Baseline (water coverage in 1990)	4.451*** (0.099)	4.080*** (0.111)	3.781*** (0.142)
Margin of victory		-0.106 (0.112)	0.05 (0.121)
Alternation		0.172** (0.074)	0.126 (0.072)
Voter turnout rate		0.574*** (0.153)	0.809*** (0.186)
Total municipal budget (per capita)			0.001 (0.001)
Population dispersion			-0.729*** (0.141)
Population			0.007*** (0.002)
Population growth			0.094 (0.096)
Poverty rate			-0.136 (0.2)
Literacy rate			1.062*** (0.353)
N	1968	1953	1953
R-Squared	0.690	0.736	0.748

Note: Huber-White standard errors in parentheses. N-1 (30) state dummy variables were included in all estimations except the first (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition.

\*\*\*p<.001 \*\*p<.01 \*p<.05

TABLE 3.6. OLS Regressions on the Log-odds Ratio of the Electrification Coverage Rate

	Model 1	Model 2	Model 3
	<i>Only baseline included</i>	<i>Socioeconomic and budgetary controls excluded</i>	<i>Full specification</i>
Intercept	-0.818*** (0.067)	-0.543*** (0.160)	-1.567*** (0.33)
Baseline (electricity coverage in 1990)	4.538*** (0.084)	4.338*** (0.097)	3.69*** (0.121)
Margin of victory		-0.106 (0.079)	0.035 (0.08)
Alternation		0.148** (0.049)	0.098* (0.049)
Voter turnout rate		-0.132 (0.114)	0.199 (0.12)
Total municipal budget (per capita)			0.001* (0.001)
Population dispersion			-0.688*** (0.114)
Population			0.013*** (0.002)
Population growth			0.217** (0.078)
Poverty rate			-0.134 (0.123)
Literacy rate			1.852*** (0.315)
N	1968	1953	1953
R-Squared	0.747	0.795	0.822

Note: Huber-White standard errors in parentheses. N-1 (30) state dummy variables were included in all estimations except the first (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition.

\*\*\*p<.001 \*\*p<.01 \*p<.05

### **3.5. EMPIRICAL FINDINGS**

In all the analyses the initial rates of service coverage happen to be extremely relevant factors in predicting coverage in year 2000, no matter what model specification we look at. The positive and strong relationship between the two variables is not surprising at all, given the path-dependent nature of service coverage discussed before. Also, it is important to note that the initial rates of coverage explain the largest share of the variation in all the analyses, as readers can verify by looking at the high values of the R-squared statistic displayed in Model 1, where initial coverage rates constitute the only independent variable. However, there are variations in the magnitude of the coefficient of initial coverage rates across the three services analyzed. The relationship is the strongest in the case of drainage, for which every additional percentage point in coverage in 1990 predicts an increase in year 2000 of almost 74 percent when the function is evaluated at initial levels close to zero, whereas the effect is around 20 percent when the function is evaluated at initial levels close to one (i.e. when virtually all households in a municipality have access to drainage), holding all other variables constant at their median value. Overall, these results reveal that, regardless of any other fiscal, political or sociodemographic factor, the distribution of service coverage across municipalities continued being influenced by the relative levels of coverage municipalities had ten years before, probably reflecting the effect of many forces driving the process of modernization in the country.

If we just look at model 2 in any of the three tables, we might conclude that either electoral competition or party alternation have a positive and significant effect on the relative levels of service coverage. For example, in the second column of Table 3.4, the

coefficient of the margin of electoral victory has a negative sign (recall that such a negative sign indicates that the relationship between competition and coverage is positive) and it is statistically significant at the 0.001 level. Likewise, in Tables 3.5 and 3.6 the alternation of parties appears as having a positive and significant influence on the rates of coverage of water and electrification, respectively. However, those specifications exclude all sociodemographic controls as well as the municipal budget constraint, implying that the (spurious) effect of competition and alternation on coverage was due to the omission of relevant variables. For example, in Table 3.4, model 3, the coefficient of electoral competition lost its statistical significance and its magnitude fell down dramatically. In order to verify whether this outcome was due to the way electoral competition was measured, I used other surrogate measures of competition (whose results I do not report here), such as the Laakso-Taagapera index of the effective number of political parties, and the share of the vote for the PRI. However, these alternative measures of competition did not change the results. Therefore, by and large, there is no evidence supporting the proposition that electoral competition improves the relative levels of service coverage in Mexican municipalities.

The effect of party alternation was significant only in the case of electrification, but not in the cases of drainage and water. For the case of water, model 3 in Table 3.5 shows that the coefficient corresponding to the alternation of parties is positive, although it marginally fails to meet the conventional level of significance. However, the size of its effect on coverage is extremely low: municipalities that underwent alternation of parties at least once during the 1990-2000 period had water coverage levels only .05 percent higher than those who never experienced alternation (holding all other variables constant at their median values). For the case of electrification, the effect of alternation is even lower, since the difference in coverage between the two types of municipalities (i.e. those

with and without party alternation) is of only 0.02 percent. Thus, despite its statistical significance, the effect of party alternation is practically inconsequential.

An interesting finding is that voter turnout appears as a factor that contributes to the growth in coverage for the three services analyzed. In most specifications, its coefficient is not only statistically significant, but also substantively large, particularly in the case of water. Drawing on the results displayed in Table 3.5, model 3, I estimated that for every additional percentage point of increase in voter turnout, the provision of water increases at a rate of 6 percent when the function is evaluated at turnout rate levels close to zero, holding the remaining variables constant at their median values. However, the marginal effect of voter turnout on water coverage increases dramatically if the function is evaluated holding the initial rate of water coverage (i.e. the 1990 baseline) at much lower levels.<sup>72</sup> This implies that the ability of voter participation to affect the coverage of water is considerably increased in municipalities whose earlier water endowments were relatively low. In the cases of drainage and electrification, turnout is also influential, though its marginal effect is slightly smaller. In any case, the analysis reveals that the participation of voters in local elections plays a much more relevant role in improving the provision of basic services, possibly implying that local policymaking is more responsive to a highly mobilized electorate than to a very contested electoral environment. I will return to this discussion later.

Another important result concerns the positive impact of literacy rates on service provision. In the case of drainage, literacy rates have a very strong effect on coverage: municipalities with literacy rates approaching one hundred percent have, on average, 80 percent more households with access to sewage systems, compared to municipalities with

---

<sup>72</sup> For example, when the 1990 water coverage baseline is set at 20 percent, the marginal effect of the turnout rate is between 14 and 19 percent, depending at which level of turnout the function is evaluated, holding all other variables (except for the 1990 baseline) constant at their median values.



literacy rates close to zero. In the case of electrification, the marginal effect of literacy rates on coverage is between 5 and 22 percent (depending at which level of literacy the function is evaluated), and in the case of water provision, the coefficient does not meet the conventional standard of statistical significance, but nevertheless its magnitude is still substantial. This result seems to be in line with the proposition outlined in the previous paragraph: that the capacity of citizens to mobilize pushing for better local services is an effective mechanism to foster the responsiveness of governmental authorities. The substantial effect of literacy rates on service coverage might indicate that better educated constituencies are more likely to exert a greater influence on government authorities to improve the provision of basic services.

Also, consistent with that view is the negative effect that poverty levels (measured as the proportion of employed workers earning less than the official minimum wage) have on service coverage, at least in the case of drainage. Once more, we could interpret this outcome as suggesting that poor people are less likely to influence the policy priorities of local officials.

In summary, the evidence reveals that municipal government performance is more responsive to demand influences than to supply factors. Neither competition nor alternation affect service coverage, while both voter turnout and literacy rates have a substantial influence. This finding implies that electoral democracy might not be a sufficient condition for better local governance. On the other hand, factors measuring citizen involvement and awareness seem to be more effective in fostering the performance of governments, though we do not know exactly how these mechanisms operate in reality. In the concluding section I will return to this discussion.

### **3.6. DEVELOPING INSTITUTIONAL CAPACITY**

The previous analysis revealed that the provision of municipal services in Mexico has been virtually unaffected by increases in the levels of electoral competition at the local levels of government. This result by itself might lead us to conclude that the process of local democratization (at least its electoral dimension) has produced very modest consequences over the outcomes of local governments. However, before arriving at such a conclusion, we should take a closer look at some important aspects of local governance that generally tend to be overlooked. Specifically, it is important to evaluate if municipal governments in the country are taking the necessary steps to improve their managerial and organizational capacities to deal with the day-to-day tasks, and whether such an improvement is to some extent explained by a more contested electoral environment. In other words, besides looking at their policy outputs, it is also relevant to analyze the processes by which local governments develop an effective institutional capacity. By institutional capacities I basically mean two things: 1) the willingness of governments to create impersonal rules for their internal organization; 2) the propensity of political leaders to base their appointment decisions on the meritocratic basis of competence and skill rather than on personal favoritism or political patronage. Developing these capacities is not an easy endeavor, especially in the context of Mexican municipalities where the lack of consecutive reelection, the short duration of the mandate, and the strong political centralization, have precluded local governments from improving their levels of administrative professionalization. Although building up institutional capacity evidently promotes socially desirable outcomes (for example furthering the quality of public policy implementation), it also implies that local politicians would have

to give up a number of privileges, such as being able to reward their political loyalists with jobs in the bureaucracy, granting contracts to their friends for carrying out public works in the municipality, etc. In other words, we can think of administrative professionalization as a collective good: it provides benefits to a broad range of constituents, but its costs should be born by individual politicians that would have to put a stop to (or at least reduce) traditional patronage as a means to assure their political survival.

Unfortunately, there are not many reliable indicators to measure the institutional development of municipal governments in Mexico. For the purposes of this analysis, three indicators were constructed, based on the surveys of municipal development (*Censo de Desarrollo Municipal*) carried out by INEGI in 1995 and by INEGI and INDESOL in 2000. The first, called “regulatory capacity”, is an index derived from the responses of municipal presidents to a question listing a number of regulation codes. For each of the codes listed, respondents simply provided a “yes/no” answer, depending on whether the code was available or not in the municipality (see Appendix E). Thus, the two indices (one for each year) were obtained by dividing the number of affirmative responses by the maximum number of codes listed in each of the surveys. In 1995, the mean value of this variable across all municipalities in the country was 0.35, with a standard deviation of 0.22, while in 2000 the mean increased to 0.4, with a standard deviation of 0.24. Although small, this improvement in the regulatory capacity of municipalities is statistically significant.<sup>73</sup> I admit that the only existence of a regulation code does not necessarily implies its actual enforcement, but at least provides us with a starting point for evaluation.

---

<sup>73</sup> The comparison of means between the two years produces a t statistic equal to 6.5, which rejects the null hypothesis that the regulatory capacity did not change from 1995 to 2000.

The second indicator constructed for this study is called “civil service professionalization”, which is derived from another survey item asking municipal presidents to indicate whether the municipal government had a personnel management division, and in case it did, how many assignments (out of four) such an area performs.<sup>74</sup> In consequence, the index ranges from 0 to 5, where 0 indicates that the government does not even have such an administrative division; a value of 1 implies that, although the government reports having a personnel management department, it does not provide information about the specific tasks such a department carries out. A value of 5 implies that the area carries out the four tasks listed. In 1995, the mean value of this variable was 0.23, with a standard deviation of 0.33, while in 2000 the mean increased to 0.28, with a standard deviation of 0.37. Once more, the change in the level of civil service professionalization between the two years was statistically significant.<sup>75</sup>

The third indicator of institutional capacity developed for this study is an index measuring the average level of formal instruction among top municipal officials. This indicator was derived using data from the 2000 survey, which asked municipal presidents to report the highest grade of schooling attained by each of the top-level bureaucrats serving in their administration.<sup>76</sup> For each bureaucratic position, a maximum of seven levels of formal instruction were given as response options, ranging from “none” to “graduate level”. Respondents were also asked to report whether each level of schooling was completed or not by each public servant, thus producing 12 possible ranks, ranging from “no formal education”, to “incomplete primary school”, to “complete primary school”, and the rest. Therefore, the “public official schooling” index was obtained by

---

<sup>74</sup> For the personnel management division, the surveys listed the following assignments: 1) recruitment, selection, and hiring, 2) job induction, 3) training and development, 4) incentives for performance.

<sup>75</sup> The t-statistic derived from the comparison of means between the two years is equal to 5.37.

<sup>76</sup> A maximum of 13 posts were listed in the questionnaire. Table E.2 in Appendix E describes specifically what bureaucratic positions were listed.

averaging up the levels of schooling across all public servants for which data was reported. The national mean of this variable in year 2000 was 7.25 (a schooling level below incomplete high-school), with a standard deviation of 2.14. Unfortunately, the 1995 survey did not include this question.

A fourth composite indicator called “aggregate institutional capacity” was derived from the other three using the technique of principal components factor analysis, but only for year 2000, since the 1995 survey did not include the item related to the schooling levels of public officials. It is used in the analysis in order to simplify the discussion of results, although the other three are individually employed also.

The following multivariate analysis will use the values of these three institutional capacity indicators in year 2000 as dependent variables (plus the composite index), after controlling for the levels of institutional development that municipalities had in 1995.<sup>77</sup> That is, we will be looking at how municipalities improved their institutional capacity in the course of the years from 1995 to 2000, and analyze whether such changes can be explained, once more, by increases in their levels of electoral competition, governmental juxtaposition, and voter participation.<sup>78</sup> For this reason, the values of these three key independent variables were calculated using their annual averages for the 1995-2000 period only, thus considerably reducing the time gap that the previous analyses suffered. The modeling is very similar to the previous one, except for the fact that this time the variable measuring the geographical dispersion of the population is excluded, since it is not considered to be relevant in explaining variations in institutional development. The municipal budget constraint is maintained in the model, but this time it is broken up in terms of its three principal components: 1) the revenues that municipal governments

---

<sup>77</sup> Only in the case of the formal schooling indicator will such a baseline be absent, given lack of data for 1995.

<sup>78</sup> For this analysis I disregard party alternation, since this variable is highly correlated with governmental juxtaposition (the correlation coefficient is 0.7), which would create a problem of multicollinearity.

generate locally from their own taxing sources (i.e. the sum of property taxes, user fees, and other surcharges); 2) the revenue-share transfers municipalities receive from the federal government, and which can be freely spent; 3) the earmarked transfers municipalities started to receive from the federal government in 1998, which must be spent on basic infrastructure assignments. The purpose of breaking up the local budget is to analyze whether the nature of each revenue source has a different consequence on the institutional capacity of municipal governments. The remaining elements of the model are basically the same as in the previous analysis.

Given that not all the dependent variables are continuous, different estimation methodologies were employed. In the cases of “regulatory capacity”, “public official schooling”, and the overall index of institutional capacity, OLS regression is utilized, since both dependent variables are continuous. In the case of “civil service professionalization”, a maximum likelihood ordered logit methodology is employed, given that the variable has only five categories, each of them representing a higher outcome. The results of the regression on each dependent variable are reported in Table 3.7.

TABLE 3.7. Regression Results on Four Indicators of Local Institutional Capacity

<u>Dependent variables and method</u>	Regulatory capacity (OLS)		Public officials' schooling levels (OLS)		Civil service professionalization (Ordered logit)		Institutional capacity index (OLS)	
	Budget constraint excluded	Full specification	Budget constraint excluded	Full specification	Budget constraint excluded	Full specification	Budget constraint excluded	Full specification
<u>Independent variables</u>								
Intercept	0.264* (0.11)	0.227 (0.121)	8.058*** (0.789)	7.433*** (0.847)			0.698 (0.476)	0.465 (0.524)
Baseline (five-years lag of dependent variable)	0.124*** (0.026)	0.112*** (0.027)			0.91*** (0.163)	0.855*** (0.164)		
Locally-generated revenues		0.001** (0.000)		0.002** (0.000)		0.002** (0.000)		0.002** (0.000)
Revenue-share transfers ( <i>participaciones</i> )		-0.001** (0.000)		-0.001** (0.000)		-0.001** (0.000)		-0.001** (0.000)
Earmarked transfers		0.001 (0.000)		-0.001 (0.000)		-0.001 (0.000)		-0.001 (0.000)
Margin of victory	-0.079* (0.035)	-0.052 (0.037)	-1.222*** (0.288)	-0.382 (0.293)	-0.266 (0.349)	0.095 (0.374)	-0.677*** (0.156)	-0.261 (0.163)
Juxtaposition	0.005 (0.013)	0.002 (0.013)	0.224* (0.091)	0.176* (0.089)	0.303** (0.115)	0.283* (0.117)	0.148** (0.055)	0.113* (0.055)
Voter turnout	-0.181*** (0.05)	-0.13* (0.053)	-4.973*** (0.392)	-3.532*** (0.428)	-2.366*** (0.528)	-1.768*** (0.55)	-2.52*** (0.224)	-1.815*** (0.235)
Population	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
Literacy	0.341*** (0.093)	0.342*** (0.103)	4.708*** (0.752)	4.755*** (0.785)	1.546 (0.934)	1.507 (1.073)	2.528*** (0.388)	2.396*** (0.428)
Poverty	-0.034 (0.049)	-0.014 (0.051)	-1.517*** (0.409)	-1.194*** (0.416)	-0.933 (0.491)	-0.792 (0.503)	-0.811*** (0.212)	-0.573** (0.217)
N	1849	1849	1953	1953	1953	1953	1953	1953
R-squared	0.172	.182	0.424	0.455	0.124 (pseudo R <sup>2</sup> )	0.126 (pseudo R <sup>2</sup> )	0.431	0.457
Log-likelihood					-2171.8	-2165.2		
Note: Huber-White standard errors in parentheses. 30 state dummy variables were included in all estimations (the omitted unit is Aguascalientes), but their coefficients are not reported for ease of exposition. When the models of regulatory capacity and civil service professionalization are run as a function of the 1995 baseline only, the value of the R-squared statistic is equal to .04 in the first case, and the value of the log-likelihood is equal to -2439.7 in the second. ***p<.001 **p<.01 *p<.05								

Overall, the results suggest that increasing levels of electoral competition and the existence of governmental juxtaposition during the period analyzed promote improvements in the institutional capacity of municipal governments, before controlling for budgetary constraints. This result holds not only in the case of the aggregate index of institutional capacity, but also for each individual indicator, excepting civil service professionalization. Nevertheless, although statistically significant, the effects are not substantively strong. For example, for every one percent decrease in the margin of electoral victory, the composite institutional capacity index increases by 0.67, which constitutes half of one standard deviation of its distribution. Even smaller is the effect of juxtaposition: municipalities that had undergone juxtaposition at least on one occasion during the period analyzed exhibit an improvement in the institutional capacity index of no more than 0.148, compared to municipalities that have been always controlled by the same party as the state governor's. If we analyze the effects of competition and juxtaposition separately on each of the three individual indicators, we can clearly observe that they are not very high as well. Furthermore, it may be that the positive effects of competition are due to the response bias suggested in a previous section: since survey respondents are municipal presidents, they might have incentives to overstate the institutional capacity of their administrations, particularly those acting under a context of high electoral competition. Thus, given the small effects of their regression coefficients and acknowledging the possibility of response biases in the data, we cannot ascertain that competition and juxtaposition are strong determinants for the institutional performance of local governments in the country.

Incidentally, the statistical significance of the electoral competition coefficient practically disappears when the model incorporates the three variables measuring the municipal budget constraint (the size of the government juxtaposition coefficient is



reduced as well). This might be due to the fact that both juxtaposition and competition are somewhat related to the per capita amount of transfers made by higher levels of government, which produces a reduction in the magnitude of the two coefficients, as well as an increase in their standard errors.<sup>79</sup> Interestingly, we can observe that each source of local revenue has a different effect on the overall index of institutional capacity (and on each individual indicator). First, the revenues that municipalities raise from local sources appear to stimulate local governments to strengthen their institutional capacity, although we should always bear in mind that the relationship between revenue collection and institutional capacity might operate in the opposite direction. In contrast, both the conditional and the unconditional transfers from the federal government have a negative effect on local institutionalization, which strongly suggests that municipalities whose public finances are highly dependent on intergovernmental aid are less likely to modernize their administrative apparatuses. The policy implication of this result is that the current system for the distribution of intergovernmental funds does not seem to reward municipalities that invest in improving their organizational capacities. Quite the contrary, the system seems to encourage them to become even more dependent on the federal aid. I will revisit this issue in the next chapter, when discussing why the enforcement of local taxes is an important factor for developing institutional capacity.

The influence of the remaining control variables on institutional capacity is in the expected direction, but we should emphasize again the importance of literacy rates, the effect of which accounts for almost two standard deviations of the distribution of the

---

<sup>79</sup> The coefficients of correlation between the margin of victory and the remaining variables of the budget constraint are the following: with federal earmarked transfers the coefficient is 0.27, with revenue-sharing grants it is 0.22, and with locally generated revenues the coefficient is -.15 (the three are significant at the 0.05 level). This implies that more competitive municipalities tend to receive less federal transfers (both conditional and unrestricted), but they tend to collect more revenues from local sources.

aggregate index. Once more, this is a strong indication that a more educated society is a fundamental ingredient to produce better governmental outcomes and processes.

On the other hand, higher voter turnout rates appear to discourage municipal governments to build up their institutional capacity. The negative effect of the turnout rate is not only statistically significant, but its magnitude is very substantial and consistent across the four dependent variables. This result appears to contradict the claim that more participatory societies are more likely to produce better governmental outcomes, as we found out in the analysis of public service provision. What might explain this paradox? In my view, this result could be an indication that a highly mobilized electorate might preclude local governments to give up their ability to use public resources for political patronage.<sup>80</sup> As I discussed before, developing institutional capacity necessarily implies that incumbent politicians should adhere to impersonal rules governing the processes by which they make decisions, thus reducing their ability to employ personalistic styles of government. However, this situation is very unlikely to take place when policy decision-making is strongly tied to political parties. If political parties have a substantial leverage on the day-to-day decisions of municipal governments, they have very few incentives to get the local administration modernized in terms of more meritocratic procedures for personnel recruitment, more transparent rules for granting public works contracts, and the like, because such institutional setting would prevent parties to make a political use of resources in favor of their adherents.<sup>81</sup> In summary, if high turnout rates are interpreted as signs of party mobilization rather than of

---

<sup>80</sup> Recent studies on political clientelism support the proposition that the provision of private goods to specific clienteles is a strategy through which rational politicians maximize their political survival, even under competitive electoral conditions. For example, Magaloni, et al. (2002) argue that, in order to diversify electoral risk, politicians in Mexico not only invest on universalistic goods, but also spend resources to provide private benefits to political loyalists.

<sup>81</sup> This type of governing style is one of the elements Ward (1998) identifies as the “machine politics” approach to local governance in Mexico, in which parties have substantial influence on the decision-making of municipal governments.

civic awareness and commitment, then it is not surprising to observe declining rates of government institutionalization in municipalities where parties are more powerful, even after controlling for socioeconomic conditions. In Chapter 4 I will return to this issue when analyzing the problems of tax enforcement in Mexican municipalities.

### **3.7. COMPETITION VERSUS PARTICIPATION: FINAL REMARKS**

The evidence presented in this chapter suggests that the influence of electoral competition on the performance of municipal governments in Mexico is very limited. Coverage rates of water, drainage, and electrification are virtually unaffected by changes in the municipal electoral environment, no matter how we measure competition and how we model its relationship with service coverage.<sup>82</sup> I find, on the other hand, a very modest positive influence of competition and alternation on the development of institutional capacity among municipal governments. Response bias problems in the survey data may explain this outcome. The main implication of this analysis is that local electoral democracy has been an insufficient condition to improve the accountability of local officials in the country, which might be due to the constitutional ban to the consecutive reelection of local mayors. Without the reelection incentive, local politicians might be less likely to be accountable to the electorate, since their careers depend more on their loyalty to party leaders.

On the other hand, it seems that the principal forces driving better governance outcomes and processes come from “demand” factors, such as increases in literacy rates, reductions in poverty levels, and increases in voter participation rates. However, we should be cautious in the interpretation of the turnout rate. Although higher rates of

---

<sup>82</sup> My results are in line with the finding obtained by Cleary (2004) for these three services. The author, however, did not analyze the issue of institutional capacity.

electoral participation were found to stimulate the provision of basic services, they seem to discourage the modernization of the organizational apparatuses of local governments. This result might indicate that a highly mobilized electorate, strongly influenced by party activism, precludes incumbent politicians to give up their capacity to use public resources for patronage. Although developing the institutional capacity of local governments is desirable to the extent that it improves the quality of policy implementation and the transparency of the policymaking process, it seems that local authorities have not very big incentives to carry out these type of investments, especially when political parties have a strong capacity to mobilize the electorate, influence the government agenda, and give preferentiality to political criteria in the allocation of public resources, rather than adhering to more technical and impersonal rules for local governance.

As I pointed out at the beginning of this chapter, this first round of empirical analyses was aimed at understanding the influence of the electoral environment on the performance of municipal governments from a long-term perspective, given that the available data prevent to investigate that relationship taking into account variations occurring throughout time. This limitation prevents us to better observe the influence of the electoral environment on the decision-making of local authorities from one year to another. The next chapter attempts to fill this gap by analyzing the budgetary choices of municipal governments in the course of the 1990-2001 period, which allows to investigate the same set of electoral hypotheses, as well as some additional propositions regarding local fiscal behavior in electoral years and the consequences of policy decentralization.

## **Chapter 4**

### **Local Democracy and Fiscal Decentralization in Mexico: Municipal Budgetary Choices and Tax Performance**

The previous chapter revealed mixed results regarding the ability of competitive elections to improve the performance of municipal governments in Mexico, while at the same time it suggested that a better educated and well-organized citizenry positively affects local government performance. However, the previous analysis was limited by the nature of the available data on public service provision, mainly by our inability to track down changes in performance between shorter than ten year time intervals. At the same time, it could be argued that, despite the fact that municipal authorities are constitutionally responsible for the provision of water and drainage, they are still dependent on higher governmental funding levels, especially poorer and rural municipalities that lack adequate technical and financial capacity to provide these services by themselves. In order to fill these potential shortcomings, this chapter makes use of a panel of data that focuses on the taxing and budgetary choices of local governments in the country throughout the years between 1990 and 2001. The dataset consists of a combination of cross-sectional units (most municipalities in the country) observed throughout 12 years, and it provides us with the opportunity to analyze a different set of dependent variables over which municipal governments in Mexico have considerably more decision-making autonomy: the allocation of local budgets, and the enforcement of local taxes. The budgetary choices of municipal governments constitute an alternative way to observe whether a more contested and participatory electoral environment provides incumbent authorities with the incentive to invest in areas of high

social priority, thereby supporting the proposition that elections are effective mechanisms to hold policymakers responsive to the demands of the electorate. The enforcement of local taxes is another important dimension of the performance of municipal governments in the country since it constitutes the best alternative for municipalities to reduce their financial dependency with respect to other levels of government (i.e. federal and state), and use these unconstrained resources to finance local policy initiatives, rather than centrally designed programs.

This chapter attempts to make an empirical contribution to the decentralization debate, looking at the budgetary allocations and taxing effort of local governments in Mexico. The objective is to analyze to what extent the spending and tax choices of Mexican municipalities have been responsive to the increase in electoral competition, the alternation of parties, and the proliferation of political juxtaposition experiences across the country. In addition, it explores whether the interface between local democratization and policy decentralization has provided local authorities with better incentives to invest on basic infrastructure projects that are necessary to improve the social development of the country. Given the advantages that this panel provides, now it will be possible to analyze additional hypotheses regarding phenomena taking place through time: this chapter will incorporate the role of electoral years over the taxing and spending decisions of municipal governments. Specifically, it will be assessed whether local spending is increased and tax enforcement reduced in electoral years (in line with political business cycle theories).

#### 4.1. DECENTRALIZATION OF LOCAL INFRASTRUCTURE IN MEXICO

Despite several decentralization attempts, Mexico remains one of the most centralized countries in the world, as the federal government continues to control most of the spending and taxing instruments. For example, Goodspeed (2001) compares a number of federations belonging to the OECD, in terms of different decentralization indicators. One is the revenues that states and local governments collect from their own sources as a percentage of their total budgets. Mexico ranks the lowest in this indicator, since its sub-national governments collect 10.5 percent of their total revenues from their own sources in 1998. The second most centralized country is Australia (collecting 33.5 percent), and the least centralized is Belgium, where local authorities collect 100 percent of the revenues. Mexico's level of fiscal centralization is currently higher than it used to be in 1980, where the same indicator took a value of 30.6 percent.<sup>83</sup> With respect to the area of basic infrastructure, probably the first serious effort to make an explicit distribution of spending roles across government levels was the reform to article 115 of the national constitution in 1983. As it was pointed out in Chapter 3, the reform assigned municipal governments with the responsibility to provide basic local services, however funding remained heavily under centralized control, and most small municipalities continued lacking the financial and technical capacity to provide by themselves many of those services.

During the years of the Salinas administration (1988-1994), a new federal program for poverty alleviation (the *Programa Nacional de Solidaridad* or PRONASOL) was created, which comprised special funds for the development of basic infrastructure projects like water, sewerage systems, electrification, etc. However, PRONASOL

---

<sup>83</sup> For a review of the historical forces that lead the strong centralization in Mexico's fiscal system see Giugale and Webb (2000).

projects were decided by the federal bureaucracy in conjunction with local community organizations. In other words, local governments were mostly ignored, since they did not have any relevant role in the allocation of funds, and these never became part of their budgets. PRONASOL was ended by president Zedillo in 1995 as a result of several criticisms that maintained that the program had been used for political ends.<sup>84</sup> Since one of the goals of the new government was to make the distribution of intergovernmental funds more transparent, the resources that formerly belonged to PRONASOL were shifted to a new fund called Municipal Social Development Fund (*Fondo de Desarrollo Social Municipal*, or FDSM), which by 1996 started to be distributed to the states according to a formula that took into account their relative levels of social deprivation. Despite the fact that the states were required to distribute the funds of the FDSM to their municipalities based on formulas comparable to the federal one, states were mainly free to define their own methods of distribution, but not all of those formulas were consistent with the objective to compensate municipalities where poverty levels were more severe (Scott, 2004). Furthermore, the FDSM remained under the regulation and supervision of the federal government.<sup>85</sup>

Possibly, the most drastic step toward the decentralization of basic infrastructure in Mexico was the creation in 1997 of a new federal budgetary item called the *Ramo 33*, launched by the national chamber of deputies, which for the first time in history did not have the absolute majority of the PRI (the hegemonic party in the country). In the past, federal funds for health, education, social infrastructure and other sectors were mainly decided by central agencies in Mexico City. With the new reform that was actually put

---

<sup>84</sup> Molinar and Weldon (1994) suggest that by 1991 the Mexican government used PRONASOL resources to compete for votes.

<sup>85</sup> Peredo (2003) presents a good description of the earmarked funds transferred to states and local governments in Mexico during the nineties, arguing that the decentralization policies of the Zedillo administration did not provide more autonomy to sub-national governments. For the operation of the FDSM at the municipal level see Vega-Godínez (1998).



into effect in 1998, many of these resources started being transferred to state and municipal governments. One of the most important elements within the *Ramo 33* was a municipal social infrastructure fund (*Fondo de Infraestructura Social Municipal* or FISM), whose goal was to stimulate the development of basic infrastructure projects across the country, particularly in areas with high levels of social deprivation. This budgetary item originated from the former FDSM (described in the previous paragraph), but it contained important innovations. As in the case of the FDSM, the FISM was distributed to the states according to a federal formula, but this time states were required, for the distribution of funds to the municipalities, to use either the same formula utilized by the federal government, or an alternative method based on less information requirements. But in the two cases, the formulas were explicitly stated in the national law of fiscal coordination, in order to reduce the discretionary power of state governments to use political considerations in the distribution of funds. Another innovation of the FISM is that its resources comprise 2.5 percent of the total revenues that the federal government is required by law to share with all states and municipalities (*Recaudación Federal Participable*). In other words, FISM funds are not subject to the budget battles that take place every year between the national executive and legislative branches, which considerably reduces the uncertainty faced by local governments regarding their budget availability.<sup>86</sup> An additional characteristic is that FISM resources have become part of the municipal budget, although they must be spent exclusively on the following social infrastructure areas: 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. The federal law also requires municipal governments to promote the

---

<sup>86</sup> Evidently, the amount of funds can vary depending on the situation of the national economy.

participation of communities in the formulation, implementation, and supervision of the projects carried out with FISM resources, which somehow resembles the approach adopted by PRONASOL for the allocation of resources. But it should be noted that, in contrast to previous decentralization policies, the regulation of the FISM is not anymore under the control of federal agencies, since now state governments are responsible to supervise its operation. Actually, the federal government lost substantial influence over the operation of these resources, since municipal governments are only accountable to state legislatures.

In summary, the decentralization policy of 1998 has considerably broaden the autonomy of subnational and local governments to use federal resources for the development of basic infrastructure projects. However, the policy has had a number of drawbacks. A study by Rodríguez-Gómez (1999), for example, points out that the regulations established by some state governments for the operation of FISM funds have considerably reduced the capacity of municipalities to participate in the definition of spending priorities. Even though the federal agencies had significant influence over the allocation of intergovernmental funds before 1998, municipalities and community organizations had nevertheless an important role in policy formulation. Now that the control of the funds is under the responsibility of state governments, the scope for municipal participation might have diminished, at least in some states. Another problem identified by the author is the capacity and willingness of municipal authorities to actually organize the participation of citizens in the definition of spending priorities. For example, some municipalities lack the necessary expertise to inform the public about the norms that should be fulfilled in order to use the funds. There are also cases in which spending decisions in fact are made by the municipal president, while local authorities only simulate the existence of a participatory process. Another potential problem of the

FISM policy is its negative effect on the fiscal effort of Mexican municipalities. Some studies (Moreno-Jaimes, 2003; Raich 2003, Sour, 2004) have suggested that the transfer funds created since 1998 have reduced the incentives of local governments to enforce the collection of the property tax (the most important tax revenue at the municipal level): given the choice, a local policymaker prefers to rely on federal transfers to finance public goods, instead of increasing local taxes, especially if this entails a political cost. Finally, it is unclear whether state executives and legislatures are effectively supervising the use of funds by local authorities.<sup>87</sup> All these are problems that should be carefully taken into account in a comprehensive evaluation of the decentralization policy in the area of basic infrastructure in Mexico. Chapter 5 will revisit these issues, focusing on the operation of social infrastructure funds in a Mexican state.

Given the large deficiencies that still exist in service coverage across the country (as pointed out in Chapter 3), it is imperative to know whether the spending choices of local governments tend to favor investments in the sector of basic infrastructure, particularly now that they have acquired more decision-making autonomy since 1998. Also, it is important to investigate whether the process of local democratization has induced municipalities to give preference to spending areas of high significance for social development. The following section investigates this issue in more detail.

#### **4.2. THE ANALYSIS OF LOCAL BUDGETARY CHOICES**

This section presents an econometric analysis of the budgetary allocations of municipal governments in Mexico. It focuses on the two most important budget

---

<sup>87</sup> From interviews with several state officials at the finance and planning department of the Estado de México (one of the wealthiest and most populous states in the country), it is apparent that municipalities have never been scrutinized in their use of FISM resources by the state legislature. See Chapter 5 for more details.

categories of local spending in Mexico, current administrative expenses and public infrastructure investments. The aim of the analysis is to explain the extent to which the allocation of local budgets responds to different pressures arising in the electoral arena. It will test whether increases in electoral competition, party alternation, and voter turnout rates encourage local authorities to invest resources in public works. Furthermore, the analysis will address the consequences of the decentralization of local infrastructure in Mexico on the budgetary choices of municipal governments, and whether the interaction between decentralization and political competition modifies their spending behavior.

#### **4.2.1 Conceptual framework and hypotheses**

For the purposes of this chapter, the problem of budgetary allocations is framed not merely as a technical matter, but as a highly political issue in which local policymakers try to maximize their political survival, using public resources with that aim. In the Mexican case, where reelection for public office is constitutionally forbidden, the problem of political survival consists of assuring the victory of the incumbent's party in the next electoral contest.<sup>88</sup> Thus, under a context of high political competition (as it is now the case in Mexico), we can expect that local politicians will invest more on areas that provide them with a higher political reward, improving the chances of their parties to remain in power. This key hypothesis will be tested using data from virtually all municipalities in the country for the years 1990 to 2001, the period in which the electoral landscape of Mexican municipalities became highly competitive.

---

<sup>88</sup> Although the goal of some municipal presidents governing important municipalities (especially capital cities) is to run for the gubernatorial position in their states, it can still be assumed that they seek to assure the victory of their parties in the next election for two reasons. First, the possibility of being nominated by their party to compete for the state governorship might strongly depend on the efforts they made to bolster their party's popularity in the municipality. Second, if they get to be elected as state governors, they will prefer to have a political ally in the municipal government, rather than a party rival.

Analytically, we can think of a local policymaker as a rational actor who, lacking the possibility of reelection, attempts to maximize the chances of her party to remain in power in the subsequent election. This actor uses public resources as a means to achieve her political goals (Ames, 1987). The key question here is whether, given the local electoral environment, the local politician will be more inclined to spend on public infrastructure projects that generate broad benefits to the population, or whether she will prefer to allocate available resources to expand the administrative apparatus of the local government. The budgetary allocation problem evidently lies on a continuum: not all resources will be spent exclusively either on the administration or on public works projects. But the specific weight a policymaker assigns to each budget item might depend on local electoral conditions. That is, their chances of political survival depend on how benefits are distributed among local constituents. We can hypothesize that as the electoral arena becomes more competitive and participatory, local authorities will tend to invest more on local infrastructure than on current expenditures. The rationale behind this proposition is that, under a context of low citizen participation and small electoral competition, incumbent authorities have relatively few incentives to provide benefits to a broad range of constituencies, since the basis of their power can be more easily expanded by rewarding only their political supporters through jobs in the bureaucracy and other selective transfers that entail an increase in administrative expenditures. In other words, with low competition and voter participation, the political survival of politicians is maximized through the use of traditional patronage that provides private benefits to political loyalists. On the other hand, a highly competitive and participatory electoral environment compels local politicians to provide benefits to a broader range of potential voters. Consequently, investing on public works projects that spread out benefits to

broader constituencies would be the preferred spending strategy of a politician acting under a competitive and participatory environment.

An additional element that should be considered in analyzing the budgetary behavior of local governments is the institutional setting through which local public policies operate. Specifically, it is important to take into account the role that a more decentralized policy environment plays in shaping local budgetary choices. As it was argued in the previous section, the reforms launched by the federal government to the fiscal intergovernmental system in 1998 have increased the scope for municipal decision-making. Therefore, a relevant question is whether the authority acquired by municipal governments since the creation of the *Ramo 33* has had any relevant impact on how local authorities allocate resources for local infrastructure projects. Furthermore, it is interesting to explore if electoral competition has a stronger effect on social infrastructure investments under a more decentralized policy setting.

There are additional issues that will be investigated in the analysis, given the methodological advantages that the dataset provides. One regards the budgetary behavior of local governments during electoral years. Political business cycles predict that governments will tend to spend more in years in which elections take place since incumbent authorities use public expenditures to “buy” votes (Nordhaus, 1975). The analysis will address whether this widespread idea holds for the case of Mexican local governments, and whether there is any difference between administrative and public works spending. Another issue is whether “juxtaposed governments” (i.e. municipalities where the party membership of the mayor and the state governors diverges) tend to favor public infrastructure investments. The reason for investigating the role of this variable is the assumption that, under a context of government juxtaposition, local politicians have a particular incentive to invest more on public works than on administrative activities,

since local infrastructure projects are more visible to the population at large, thus providing them with the opportunity to claim credit for their creation. In other words, “opposition mayors” seek to be recognized by local constituents as the real originators of the public goods provided locally.

#### **4.2.2. An empirical budgetary allocation model**

In order to test the previous hypotheses, this chapter exploits a panel dataset consisting of a combination of 1969 cross-sectional units (most municipalities in the country) and 12 years of observations, from 1990 to 2001, comprising a total of 23,628 observations.<sup>89</sup> Panel datasets have several advantages over conventional cross-sectional or time-series data. Not only do they increase the number of observations in the sample (which reduces potential collinearity problems), but they also provide a means to ameliorate omitted variable bias. In other words, “by utilizing information on both the intertemporal dynamics and the individuality of the entities being investigated, one is better able to control in a more natural way for the effects of missing or unobserved variables” (Hsiao, 2003, 5). In the context of the present research, the panel dataset enables us to analyze the budgetary behavior of local governments by incorporating the variations occurring throughout time, as well as the differences taking place across municipalities. In addition, by tracking down changes in performance from one year to another, responsibility for policy outcomes to different municipal administrations can more easily be attached.

One of the issues that introduces considerable complexity to this data structure is the fact that local elections take place at different moments, according to the electoral

---

<sup>89</sup> I exclude the 412 municipalities of Oaxaca state that are governed by “*usos y costumbres*” (i.e. indigenous communities that use traditional mechanisms to select their authorities, in place of modern party systems). I also leave out recently created municipalities for which data are not yet available.

calendars of Mexican states (see appendices A and B). Therefore, all electoral variables in the models that follow take the same values throughout the three years of municipal government. For example, if Aguascalientes had local elections in 1989, the values of the electoral competition variable remain the same for 1989, 1990, and 1991, until a new election takes place.<sup>90</sup> The 12-year interval of the dataset matches an average of four government periods per municipality, except for the few occasional cases in which the local government period was of higher duration.<sup>91</sup>

The dataset draws information from a variety of sources. Municipal finance data comes from a dataset by INEGI that contains yearly information (from 1989 to 2001) on different types of municipal revenues and expenditures.<sup>92</sup> Data on local elections comes from a dataset compiled by CIDAC, which contains information on the distribution of votes across parties in all municipal elections that have taken place since 1980. Socioeconomic and demographic indicators are based on the population censuses carried out by INEGI in 1990 and 2000, as well as on the population count conducted by the same agency in 1995. A potential problem with socioeconomic indicators is that we lack data for the years in-between 1990, 1995, and 2000. Thus, I had to estimate them with the use of an average annual geometric rate.<sup>93</sup>

---

<sup>90</sup> An alternative structuring of the data would take into consideration that parties forecast the competitiveness of upcoming elections. In order to cope with this possibility, the electoral data could be organized by imputing the outcome of the most nearby election, instead of keeping the previous electoral result constant over three years. This alternative strategy, however might create a problem of endogeneity if the most nearby election happens to be the forthcoming one (i.e., the electoral outcome of the next election could have been the consequence, rather than the cause, of the budgetary allocations of the incumbent government). I am grateful to Kenneth Greene for his observations on this issue.

<sup>91</sup> For example, the term of municipal governments in the Estado de México lasted four years in one occasion, from 1996 to 2000, when the electoral calendar of that state was modified to match it with the timing of federal elections.

<sup>92</sup> Available on-line through the *Sistema Municipal de Bases de Datos* at [www.inegi.gob.mx](http://www.inegi.gob.mx).

<sup>93</sup> The procedure was based on the formula  $r = \sqrt[n]{\frac{X_t}{X_{t-n}}}$ , where X represents the value of the socioeconomic variable, t is the year at which the data are reported (i.e. t=1990, 1995, 2000), and n is the



Two models were estimated for which the dependent variables are, respectively, administrative and public works expenditures, both expressed in real per capita terms.<sup>94</sup> The first set of independent variables in both models is the budget constraint of municipal governments. In the Mexican case, the local budget constraint is constituted by revenue-share transfers from the federal government that account more than 70 percent of the total resources available. The second largest revenue source is the income that municipalities generate locally (the sum of local taxes, user fees, fines and other sources). It represents no more than 20 percent of the total. Municipal debt is another component of the budget constraint, though it only comprises around 3 percent of total available resources. Finally, the earmarked transfer fund created in 1998 by the federal government, the FISM, has become a very important element of the municipal budget, representing something around 30 percent of the total amount of resources.<sup>95</sup>

In order to control for sociodemographic conditions, I use the deprivation index elaborated by CONAPO (Mexico's Population Council), which, as pointed out in Chapter 3, is a combined measure of several forms of social exclusion. The deprivation index can help us to distinguish patterns in budgetary allocations across different local socioeconomic conditions.

The key explanatory variables in the models are both political and institutional. The first political variable is the degree of electoral competition, measured by the margin of electoral victory in a local election (i.e. the difference in the proportion of votes obtained by the two strongest parties). Once more, bear in mind that a decrease in the

---

number of years in-between. The resulting annual rate of growth,  $r$ , is used to estimate the values of the socioeconomic variables for the years in-between.

<sup>94</sup> All monetary variables are divided by population size and expressed in constant pesos of 2001.

<sup>95</sup> It should be noted that state and federal agencies in Mexico still manage their own spending programs (for example on highways, health, education, agriculture, etc.), which operate locally. However, since these other spending categories are not controlled by local governments, I will leave them aside to simplify the analysis.

margin of victory should be regarded as an increase in competition. The second political variable is the existence of party alternation, which indicates whether the party governing a municipality is different to the party that controlled the local government in the previous administration. Another political variable is the relative level of voter turnout, which is measured as the number of effective votes divided by the number of potential voters in a municipality.

Other variables that can give us a better picture on how local budgets are formed in Mexico are the timing of elections and the existence of government juxtaposition. I include a dummy variable to indicate whether a local election took place in a particular municipality at a specific point in time (recall that local electoral calendars vary by state). This variable allows us to directly analyze whether local public spending increases during an electoral year, and whether this effect is the same for current expenditures and public work investments. Another dummy variable incorporated in the model is “government juxtaposition”, which indicates whether a municipal president belongs to a different party than the state governor.

An important element in the model is a variable characterizing the institutional setting in which local spending operates. I call this variable “decentralization”, which indicates that, as of 1998, the federal government started to effectively transfer local governments the responsibility of providing basic infrastructure, together with grants earmarked for that purpose. Therefore, the decentralization variable takes a value of zero for all the years from 1990 to 1997, and a value of one for the years from 1998 to 2001. The decentralization variable is only included in the model in which the dependent variable is public works expenditure per capita, because the federal policy never had the explicit goal of modifying local administrative spending. Evidently, this variable allows evaluating whether public infrastructure investments increased as a result of the

decentralization policy. But it also gives us the opportunity to answer a more interesting question: namely, is the competitive electoral environment more effective in promoting local infrastructure investments under a decentralized policy setting? In other words, are local authorities more likely to invest on public goods under a context of electoral competition *and* policy decentralization? In order to analyze this question, the model incorporates the interactions between decentralization and the three key variables of my study: electoral competition, party alternation, and voter turnout.

The first model (the one with public works investments as dependent variable) is written as follows:

$$Y_{it} = \beta_0 + \beta_1 BUDGET_{it} + \beta_2 EMARGIN_{it} + \beta_3 ALTER_{it} + \beta_4 TURNOUT_{it} \\ + \beta_5 DECENT_{it} + DECENT_{it} * (\beta_6 MARGIN_{it} + \beta_7 ALTER_{it} + \beta_8 TURNOUT_{it}) \\ + \beta_9 PRI_{it} + \beta_{10} PAN_{it} + \beta_{11} ELECYEAR_{it} + \beta_{12} JUXTA_{it} + \beta_{13} POVERTY_{it} + v_i + \varepsilon_{it}$$

where

$Y_{it}$  represents the real per capita spending on public works carried out by municipality  $i$  at time  $t$ .

$BUDGET_{it}$  is the budget constraint of municipality  $i$  at time  $t$ .

$EMARGIN_{it}$  is the difference in the proportion of votes obtained by the two strongest parties in municipality  $i$  at time  $t$ .

$ALTER_{it}$  is a dummy variable taking a value of 1 if the party governing municipality  $i$  at time  $t$  was different than the party of the previous administration, and zero otherwise.

$TURNOUT_{it}$  is the total number of votes in the local election of municipality  $i$  at time  $t$ , divided by the number of potential voters.

$DECENT_{it}$  is a dummy variable taking a value of 1 for the years from 1998 to 2001 (i.e. when federal funds earmarked for local infrastructure were decentralized), and zero for the years from 1990 to 1997.

$PRI_{it}$  is a dummy variable taking a value of 1 if municipality  $i$  at time  $t$  was governed by the PRI, and zero otherwise.

$PAN_{it}$  is a dummy variable taking a value of 1 if municipality  $i$  at time  $t$  was governed by the PAN, and zero otherwise.

$ELECYEAR_{it}$  is a dummy variable taking a value of 1 if municipality  $i$  had a local election at time  $t$ , and zero otherwise.

$JUXTA_{it}$  is a dummy variable taking a value of 1 if there was a divergence in party memberships between the president of municipality  $i$  at time  $t$  and the state governor, and zero otherwise.

$POVERTY_{it}$  is the deprivation index measuring the lack of access of households to basic services such as education, water, electrification, monetary income, etc.

$v_i$  is a time-invariant, unit-specific component.

$\varepsilon_{it}$  is the residual, which in this model is assumed to be first-order autoregressive.

The second model is identical to the previous one, except for  $Y_{it}$ , which in this case represents the real per capita spending on administrative activities carried out by municipality  $i$  at time  $t$ . The model also excludes the decentralization variable and all its interactions.

The estimations were performed using both fixed and random effects GLS methodologies. These two estimation techniques are based on different assumptions.<sup>96</sup> A fixed-effects framework allows the unit-specific, time-invariant component ( $v_i$ ) to be correlated with the observable explanatory variables, which constitutes a reasonable assumption for the purposes of this research. For example, some municipalities might be more inclined than others to develop competitive political environments for reasons that we cannot directly observe in the available data. If we assume that those unobservable characteristics are largely stable across the period analyzed, then a fixed-effects

---

<sup>96</sup> A discussion on these estimation methodologies can be found in Wooldrige (2002), Hsiao (2003), and Greene (1997).

estimation would be appropriate. A disadvantage of using a fixed-effect estimation is that it does not allow us to include variables that remain unchanging over time or whose intertemporal variation is very small (for example, all electoral variables in the models remain fixed over the three years of the municipal mandate, as it was pointed out before). A random-effects estimation, on the other hand, imposes the assumption that the unobservable effects (i.e. the latent attributes of each municipality in the sample) are uncorrelated with the explanatory variables, which is evidently a very strong one, but it constitutes a useful method when a model includes a time-constant variable. The reason for utilizing both estimation techniques is simply to show that results do not vary radically across the two models.

Also note that a total of 30 dummy variables for state effects are included in the random effects model (taking Aguascalientes as the baseline), but they are not included in the fixed-effects one, since they are time-invariant. Eleven dummy variables to identify each year of the 1990-2001 period are included in both models (1990 is taken as the baseline). Given that spending choices are highly correlated from one year to another, I allow for first-order autocorrelation in the error.

A potential concern with the former model involves the recurrent problem of endogeneity in social science research. Endogeneity could derive from two principal sources. The first is that the relationship between our key independent variables and the budget allocation might possibly be mediated by a latent or unobservable attribute of the units of analysis (i.e. the municipalities). For instance, it could be argued that municipalities where competition is high are those where the population is also more “progressive” or politically active, and, consequently, more likely to demand more public works investments from their governments. If this was the case, the positive relationship between competition and public works expenditures would be explained by those

unobserved characteristics of the population, rather than by the more contested electoral environment. However, if we are willing to assume that the unobservable attributes (i.e. the  $v_i$  component of the model) are mostly stable over time, then the fixed effects estimation would considerably reduce the problem, as it has been discussed in previous paragraphs. The second potential source of endogeneity may derive from an issue of reciprocal causation: namely, that the electoral support for other parties might be the consequence (rather than the cause) of the budgetary allocations of local governments. For example, a municipal government that is perceived by the people to allocate too few funds in developing basic infrastructure might possibly be punished in the next election. The estimation tries to cope with this issue by measuring the electoral variables with data from the previous election. In other words, there is no way that the budget allocation in time  $t$  could have affected the electoral outcome in time  $t-1$ .

Regression results are reported in Table 4.1, which displays them according to the estimation method utilized (fixed effects and random effects). The two dependent variables (public works expenditures and administrative expenditures) are analyzed separately under each estimation method. Note that, although the hypotheses are tested simultaneously, for ease of exposition I will proceed to discuss the results in stages, addressing the effect of each independent variable on the allocation of each budget category. The following section discusses the results in more detail.

TABLE 4.1. GLS Fixed-Effects and Random-Effects Regressions on Public Works and Administrative Expenditure per capita, 1990-2001

	Fixed effects		Random effects	
	Public works spending per capita	Administrative spending per capita	Public works spending per capita	Administrative spending per capita
Unrestricted transfers ( <i>participaciones</i> )	0.225*** (0.005)	0.673*** (0.004)	0.25*** (0.004)	0.67*** (0.003)
Locally generated revenue	0.352*** (0.011)	0.483*** (0.009)	0.355*** (0.009)	0.466*** (0.007)
Municipal debt	0.568*** (0.017)	0.2** (0.014)	0.566*** (0.016)	0.224*** (0.013)
Earmarked transfers for infrastructure (FISM)	0.444*** (0.019)		0.489*** (0.018)	
Municipal deprivation (CONAPO index)	Excluded	Excluded	15.962*** (3.147)	-27.161*** (2.63)
Decentralization	61.808 (160.296)		116.762*** (18.554)	
Margin of electoral victory	13.31 (9.797)	-6.771 (7.151)	22.983** (7.894)	-17.47*** (5.879)
Margin * Decentralization	-93.602*** (17.561)		-84.302*** (16.498)	
Party alternation	-19.653** (7.986)	11.016* (4.701)	-21.203** (7.187)	10.986** (4.334)
Alternation * Decentralization	24.454** (9.141)		26.179** (8.539)	
Voter turnout	-16.444 (17.45)	28.831* (13.026)	28.42* (13.022)	23.001* (9.83)
Turnout * Decentralization	-107.586*** (24.721)		-126.663*** (23.393)	
Electoral years	5.664** (2.589)	-11.169*** (2.102)	9.453*** (2.516)	-11.07*** (2.055)
Government juxtaposition	15.089** (6.305)	0.979 (4.904)	22.229*** (5.828)	-1.77 (4.611)
PRI	19.451* (9.157)	3.546 (7.135)	24.282** (8.201)	2.488 (6.528)
PAN	24.948** (9.849)	0.402 (7.655)	23.498** (8.389)	3.699 (6.713)
Constant term	84.724 (106.673)	148.412 (102.476)	-79.652** (33.731)	12.745 (29.282)
Number of groups	1954	1954	1953	1953
Maximum number of observations per group	11	11	12	12
Total N	20836	20836	22778	22778
Overall R-squared	0.433	0.871	0.536	0.896

Note: Standard errors in parentheses. All models include year dummies (excluding 1990). Only random-effects models include state dummies (excluding Aguascalientes). Their coefficients are not reported. In all cases the disturbance term is assumed to be first-order autoregressive.

\*\*\*p<.001 \*\*p<.01 \*p<.05

#### **4.2.3. Discussion of results: the virtuous interaction of decentralization with competition**

Starting with the local budget constraint, we can clearly observe that all variables measuring the available financial resources of municipal governments are extremely important, both for current administrative expenditures and for public works investment. However, there are very interesting differences in how available resources are spent on each budget category. As Table 4.1 shows in its first row, administrative expenses are mainly financed through unconditional federal transfers (i.e. revenue-sharing grants or *participaciones*): for every peso obtained in the form of *participaciones*, municipal governments spend, on average, 67 cents in their operating costs, no matter if this figure was obtained through a fixed-effect or a random-effect methodology (the coefficients are practically the same). On the other hand, only 22 to 25 cents of every peso from federal *participaciones* are spent on public works investments, which might imply that if Mexican local governments received only unconditional transfers, they would spend most of those resources on administrative activities, leaving social infrastructure projects considerably unattended. Something similar occurs in the case of locally generated revenue (i.e. money from local taxes, user fees, etc.). These resources can also be freely spent by local governments, and the results displayed in the second row of Table 4.1 reveal that for every peso collected from their own-sources, local governments spend no less than 46 cents to cover administrative expenses and 35 cents to pay for public works projects (the rest is spent on other minor budgetary items, such as personal subsidies and local debt payments). Although more weight is given to administrative activities, locally generated revenues finance a larger proportion of public works, compared to *participaciones*. In contrast, local debt (the third row in Table 4.1) is mainly used to



finance infrastructure projects: for every additional peso obtained through debt, local governments spend 57 cents on public works, and only 20 cents are used to finance operating expenditures. The explanation for this is that municipal debt is in general conditioned to pay for local infrastructure. Regarding the fund created by the federal government in 1998, which is completely transferred to municipal governments to finance the development of local infrastructure (the FISM), we can see its positive and significant impact on public works spending. Nevertheless, we should be cautious when interpreting the magnitude of its coefficient (44 cents per peso received in FISM funds), since prior to 1998 this transfer fund was absent from local budgets (the variable takes a value of zero for all the years before 1998). That is, given that the estimations are conducted for the entire 1990-2001 period, but the FISM actually started in 1998, its effect on public works expenditures is understated.<sup>97</sup> The influence of this earmarked fund on administrative expenses is not incorporated to the analysis, but some estimations (not reported) reveal that its impact is negligible.

In summary, there are strong differences in the way public resources are spent by Mexican local governments, but it is interesting to note the substantial importance administrative activities have among their budgetary priorities, at least as compared to

---

<sup>97</sup> When the analysis is performed only for the years in which the new fund was in operation, its coefficient is over 0.7, which implies that for every peso obtained in the form of an earmarked transfer, municipalities spend more than 70 cents on public works. Yet, we should be concerned with the fact that the remaining 30 cents are not spent on public works projects, despite the fact that the transfer fund has been earmarked for that purpose. A potential explanation is that the mechanisms for overseeing the use of those funds (a role that is officially under the responsibility of state legislatures) are relatively ineffective, enabling some local governments to spend them on activities that are not formally permitted by the federal law. An alternative explanation is that many local governments still lack the adequate institutional capacity to manage those earmarked funds. Recall that the Mexican fiscal coordination law (as well as the specific rules established by state governments to regulate the operation of the FISM) requires local governments to prioritize their social infrastructure needs with the participation of communities, and to follow technical procedures in order to be eligible to receive the funds. It is quite possible that local governments that lack the technical and managerial expertise to meet these criteria (presumably governments of very poor municipalities) will not be able to use the full amount of resources available to them. Since my data on the earmarked funds reflect only the maximum amounts that municipal governments are authorized to spend, but not the resources actually used by them, the remaining 30 cents that are missing could be an indication of the impossibility of some local governments to use them.

social infrastructure investments. The main policy implication of this first analysis is that there is a broad rationale supporting the existence of earmarked transfers from higher levels of government. Given the high social deprivation levels that exist across the country and the severe deficiencies in social infrastructure that characterize many Mexican municipalities, expecting that local governments will solve by themselves those problems is totally unrealistic. Not only do they lack the necessary resources to meet the most basic social needs, but when they have additional funds they tend to spend them on administrative activities instead of investing them in infrastructure projects that presumably have higher social returns. This justifies the existence of conditional transfer funds, such as the *Fondo de Infraestructura Social Municipal (FISM)* launched by the Mexican congress in 1998, whose aim is to force local governments to invest on social infrastructure.

The next question is whether there are different patterns in the budgetary allocations of local governments that result from differences in socioeconomic conditions.<sup>98</sup> The results clearly show that each budget category has a divergent relationship with the CONAPO index of municipal deprivation: as shown in the fifth row of Table 4.1, administrative expenditures are inversely related to levels of social deprivation, while public works investments are positively related to the index. These differences can be explained by the fact that wealthier municipalities already met most of their basic infrastructure needs, thus requiring less investments in that area. At the same time, wealthier municipalities require modernizing their administrative apparatuses in order to deal with the more sophisticated policy issues they face, thus they tend to invest more on their bureaucracies. Poorer municipalities, on the other hand, require large

---

<sup>98</sup> Note that it is only possible to assess the role of social deprivation levels in the models estimated through random effects regressions. The reason is that the deprivation index is mostly time-invariant, thus it is not feasible to use it within a fixed-effects framework.

investments on infrastructure to meet their most basic social needs (i.e. they need to introduce water supply, sewer systems, electrification, roads and schools), while their public administration is much less complex, given that they do not have to face the problems more developed cities do.

The last part of the analysis addresses the role that political and institutional factors play in shaping the budgetary allocations of local governments. Once we have controlled for local budgetary restrictions and socioeconomic levels, the next question is whether a more competitive and participatory electoral environment stimulates public spending in a particular way, and whether such an effect is increased (or even modified) under a more decentralized policy setting. Once more, the results suggest that electoral competition, party alternation, and voter turnout have very different consequences on how local governments spend their available resources. The first result is that all those three variables have a positive effect over administrative expenditures, as can be clearly observed in the coefficients associated to the margin of electoral victory, party alternation, and voter turnout (recall that the negative sign of the margin of victory's coefficient indicates that electoral competition and administrative spending are positively related, since larger margins of victory imply less competition). However, the effect of electoral competition on administrative expenditures is only statistically significant in the random effects model (its magnitude is equal to -17.47). That is, declining margins of electoral victory, alternation of parties in municipal governments, and high levels of voter participation seem to stimulate local governments to expand their administrative apparatuses.

On the other hand, the consequences of electoral competition and party alternation on infrastructure investments depend on whether they operate under a centralized or a decentralized policy environment. In order to better appreciate this result, we should

compare the coefficient of the margin of electoral victory (row 7) with the coefficient of the margin of victory interacted (multiplicatively) with the “decentralization” variable (row 8), and do the same for the case of party alternation (rows 9 and 10). For the period before decentralization, electoral competition (row 7) and party alternation (row 9) seem to have discouraged local governments from investing on public infrastructure projects, an outcome that challenges the usual claim that party competition should promote the accountability of government officials. However, for the years in which decentralization was operational, the effect of the two variables on public works spending (as shown in rows 8 and 10) changed radically: both competition and alternation started to stimulate local authorities to increase their investments on basic infrastructure. That is, the interaction between decentralization and the other two political variables (competition and alternation) significantly modifies the budgetary choices of local officials: before decentralization, for every one percent decrease in the margin of electoral victory, local governments reduced their spending on infrastructure by 23 pesos on average (according to the random effects estimations). After decentralization, the net effect of competition on infrastructure spending is reversed in such a way that the same one percent decrease in the margin of victory stimulates local governments to spend 61 pesos per capita on infrastructure (i.e. the difference between the coefficient corresponding to the margin of electoral victory and the coefficient corresponding to the interaction of that variable with decentralization). The same outcome occurs for the case of party alternation, since the net effect of this variable on infrastructure spending (i.e. the difference of the effect with and without decentralization) appears to be around 5 pesos per capita. An alternative way to interpret these results is from the perspective of the decentralization policy itself. The random effects model suggests that, after the decentralization, local governments spent, on average, 116 pesos per capita more than what they used to spend before the

decentralization took place. But the effect of the decentralization policy is even larger in municipalities characterized by low margins of electoral victory (i.e. municipalities where competition is high) and where alternation of parties occurs.

An unexpected result is that the voter turnout rate does not appear to stimulate the levels of investment on basic infrastructure, neither before, nor after decentralization. Quite the opposite, the results displayed in row 12 strongly suggest that, after decentralization, higher rates of voter participation discouraged municipal governments to invest on basic infrastructure. At the same time, turnout rates appear as fostering the levels of administrative expenditures. Further research is needed to elucidate this result.<sup>99</sup>

The main conclusion of this analysis is that municipal authorities are more willing to invest on basic infrastructure when they face an institutional setting characterized by both competition (or alternation) and decentralization. This result is *qualitatively* consistent across the random and fixed effects models, although the magnitude of the coefficients changes from one model to the other.

Let us now discuss the results obtained from the remaining political variables. The analysis suggests that there is a tendency among local governments to substitute administrative spending for infrastructure investment in years where local elections take place. In years when local elections are held (as shown in row 13), current expenditures

---

<sup>99</sup> The estimation was also performed controlling for the concurrence of municipal with federal and state gubernatorial elections. Two dummy variables were created, one indicating whether the municipal election was held on the same day of the state gubernatorial election, and the second indicating whether the municipal election was held on the same day of a federal election (either the presidential or the mid-term congressional). The reason for doing this was not only to observe if the spending behavior of municipal governments changes with concurrency, but also to investigate if the coefficient associated with the local turnout rate (presumably affected by the overlap of municipal with state and federal elections) varies. The results (not reported in Table 4.1 for the sake of simplicity) reveal that public works expenditures increase by 13.70 pesos per capita (significant at the 0.05 level) when municipal elections coincide with state gubernatorial elections, but decrease by 26.80 pesos per capita (significant at the 0.05 level too) when they overlap with federal elections. This might possibly imply that, during a year when both municipal and gubernatorial elections will take place, local mayors have an extra incentive to invest in infrastructure projects, probably to help the candidate from their own parties to obtain more votes. Worth noting is the fact that the effect of the turnout rate on spending does not get changed after we control for concurrency.

decrease by 11 pesos per capita, while spending on public works increases by 9.5 pesos. It implies that elections provide municipal governments with the best occasion to make their actions more visible to the population at large, and the most manifest expenditure categories are public works (roads, schools, hospitals, etc.), rather than administrative spending. Another piece of evidence supporting this view is that, under a context of government juxtaposition (i.e. when the party of a municipal president is different than the party of the state governor), municipal governments tend to increase their spending on local infrastructure projects: juxtaposed local governments spend, on average, between 15 and 22 pesos per capita more than local governments that are not juxtaposed. The phenomenon of “juxtaposition”, on the other hand, does not have any significant consequence on current administrative expenditures. With party divergence between municipal and state governments, we assume that local mayors seek to be differentiated by their constituents from state authorities; as a result we should expect them to favor policy sectors for which they can more easily claim credit. In other words, the phenomenon of party juxtaposition provides local governments with a special incentive to invest in areas that are more visible to the population, making it clear that they, and not any other authority, are responsible for those policies. For that reason we observe that government juxtaposition stimulates spending on local infrastructure (a very visible expenditure category), but does not have any effect on administrative expenditures. This also confirms the proposition that juxtaposed municipal governments are more likely to develop more autonomous policymaking strategies in order to respond to the demands of their constituencies.

Does party membership matter for local budgetary allocations? It appears that it does not in the case of administrative expenditures, since neither municipalities governed by the PRI nor those governed by the PAN spend more on their administrative

apparatuses than the PRD or the other smaller parties. Local infrastructure investments, on the other hand, reveal marked party differences; according to the fixed-effects model, both PRI and PAN governments tend to spend more on public works than the remaining parties in the country. However, the results are inconclusive regarding whether PANista governments spend more on infrastructure than the governments of the PRI, since their coefficients vary between the fixed-effect and the random-effects models (i.e. the coefficients presented in the first column, rows 15 and 16, suggest that the PAN invests more on infrastructure than the PRI, while the coefficients displayed in the second column indicate just the opposite).

#### **4.3. THE ANALYSIS OF LOCAL TAX PERFORMANCE**

Local own-source revenues constitute another important dimension of the performance of local governments in Mexico.<sup>100</sup> As in the case of basic local services, the collection of property taxes is a constitutional responsibility of municipal governments since 1983. However, not all municipalities in the country fully enforce their taxing authority. Evidently, variations in tax performance are largely explained by differences in municipal economic conditions, but they are also due to variations in the effort levels that local authorities put to collect local taxes. There is a widespread consensus in Mexico that municipal administrations are generally reluctant to fully exercise their taxing authority because they fear incurring severe political costs. Furthermore, since municipal governments are heavily dependent on grants from other levels (mainly the federal government), they have few incentives to tax local residents.

---

<sup>100</sup> Local own-source revenues are mainly comprised by the proceeds from the local property tax (*impuesto predial*), user fees (*derechos*), revenues from sale or lease of municipal assets (*productos*), and fines and other sources (*aprovechamientos*).

Given the choice, a local politician will prefer to finance her spending decisions through the use of conditional and unconditional transfers from the federal government, at virtually no cost, rather than increase the collection of local taxes. Unfortunately, in the long run this will hinder the institutional and fiscal capacity of local governments, making them even more dependent of intergovernmental aid than they already are. For the purposes of this study, increases in tax revenues are regarded as improvements in local fiscal performance, since larger own-source revenues constitute for municipalities their only alternative to enhance their financial autonomy.<sup>101</sup>

One of the motivations for bringing in the analysis of local revenues is precisely to evaluate the alleged negative effect of the decentralization policy on the taxing effort of Mexican municipalities. If the conventional claim that municipal authorities do not fully enforce the collection of local taxes because they refuse to pay a political cost were true, electoral competition would have a *negative* influence on the taxing performance of municipal governments. In other words, a more contested electoral environment would impel incumbent politicians to reduce their tax effort, since they nevertheless have access to conditional and unconditional transfers from the federal government, without bearing a large political burden. Thus, this chapter not only analyzes the effect of competition on local revenues, but also whether the interface between competition and the decentralization of grants has been detrimental for local taxing effort.

As in previous analyses, voter turnout and literacy rates are incorporated as proxies for civic engagement. Recall from Chapter 3 that the provision of public services was found to be positively affected by higher rates of voter participation and literacy, which suggested that the performance of local governments was responsive to better educated citizens and to a highly mobilized electorate. However, the analysis of local

---

<sup>101</sup> Other authors, for example Cabrero-Mendoza and Orihuela (2000), Cleary (2004), and Rodríguez (1997), have used local tax revenues as indicators of municipal performance in Mexico.



budgets revealed that voter turnout stimulates current expenditures instead of public works investments, thus challenging that interpretation. For the civic engagement hypothesis to hold in the case of local taxation, we should observe that taxes are easier to enforce in highly participative municipalities, since people are more willing to contribute financially to improve the provision of public goods and services. In other words, that high levels of civic engagement would effectively promote the cooperation of people to provide themselves with public goods, at the same time that they hold their public officials accountable.

#### **4.3.1. Consequences of decentralization on tax performance: an empirical framework**

Two estimation strategies will be performed in the analysis. The first will consist in estimating the effects of competition, voter participation, fund decentralization, and the local electoral calendar on the per capita levels of revenues coming 1) from property taxes, and 2) from user fees. These two categories constitute 65 percent of the total revenue that municipalities generate locally (that is, total municipal revenues excluding federal grants). If the claim that local politicians do not fully enforce local taxation as a result of the electoral costs they would incur, then we should anticipate a negative relationship between competition and revenues, and between these and electoral years. Also, if the creation in 1998 of the new federal earmarked funds to finance local infrastructure projects has discouraged municipal governments to enforce their taxing authority, as many of its critics have pointed out, then we should observe any, or both, of the following two outcomes: 1) that for all the years in which decentralization was in effect (from 1998 forward), municipal tax revenues were lower than for all the remaining years of the period analyzed, even after controlling for the specific effect of each year of

the 1990-2001 period; 2) that municipalities that receive larger amounts of the transfer funds decentralized in 1998 will present a lower taxing performance, as compared to others receiving less federal money, after controlling for differences in socioeconomic conditions that are part of the criteria for the distribution of the federal intergovernmental aid to states and municipalities.

The second estimation strategy attempts to assess whether the alleged negative consequences of decentralization are particularly worse when the party of incumbent authorities faces a credible threat of being thrown out of power. That is, whether the disincentive to enforce taxation is exacerbated under conditions of high electoral competition and availability of federal funds. If this was the case, then we should observe any of these two possible outcomes (or both): 1) that the negative effect of the “decentralization years” on local revenues is aggravated when incumbent authorities face high rates of electoral competition; 2) that municipalities receiving more federal grants will decrease their tax performance more when their politicians face high competition.

The empirical analysis of local tax revenues faces additional complexities than does the analysis of local budgets. One of the most important is, in my view, the lack of annual data on the level of economic activity in Mexican municipalities, which is an essential variable to control for the revenue-generating capacity of local governments.<sup>102</sup> The closest indicator for such a concept are poverty levels (measured as the proportion of workers who earn less than the official minimum wage), but this indicator is only available from the 1990 and 2000 population censuses. Given the panel structure of the data (a combination of cross-sectional units and time series), this data limitation forecloses adopting a fixed-effect estimation methodology, since the cited indicator is mostly invariant across the 12 years covered in the dataset. Therefore, I decided to adopt

---

<sup>102</sup> Annual GDP at the state level in Mexico started to be reported in 1993, but this information does not exist for municipalities.

a random-effects approach for the estimation.<sup>103</sup> Another difficulty in this analysis is that, in order to rigorously test the hypothesis that the enforcement of local taxes declines when the availability of federal grants is coupled with electoral competition, we need to create an interaction term between the competition indicator (the margin of electoral victory) and the amount of federal transfers in the model. Unfortunately, following this procedure introduces a big collinearity problem between the competition variable and its interaction.<sup>104</sup> In order to sort out this problem, I split the dataset in two parts: one sample consists only on municipalities for which the margin of victory in a particular election was no more than 0.2 (the highly competitive cases), and the other sample includes municipalities that underwent lower levels of competition (margins of victory larger than 0.2) at some point in time during the period analyzed.<sup>105</sup> Although we cannot strictly test whether the regression coefficients are different across the two models, the results seem to be at least qualitatively different in each specification (see the discussion of results below). Thus, the specification of the first estimation model is written as follows:

---

<sup>103</sup> In order to control for the part of the unobservable effect on the explanatory variables, the model includes 30 dummy variables that identify all the states (excluding one) in which municipalities are grouped. As Jeffrey Wooldridge suggests when dealing with time-constant variables in panel data, “including dummy variables for groups controls for a certain amount of heterogeneity that might be correlated with the (time-constant) elements of  $\mathbf{x}_{it}$ . By using random effects, we can efficiently account for any remaining serial correlation due to unobserved time-constant factors” (Wooldridge, 2002, 288). Another reason for not using a fixed-effect model is that the number of cross-sectional units in the sample is close to 2000 observations, while the number of time units is only 12. The cited author points out that this generally wipes-out the significance of important theoretical variables.

<sup>104</sup> For example, the correlation between the margin of victory and its multiplicative interaction with the per capita amount of transfers for municipal infrastructure is close to 0.7. This evidently is problematic for hypothesis testing.

<sup>105</sup> This implies that some municipalities might be included in both samples if, for example, they faced low competition in the early years of the decade, but later on their electoral environment became very competitive.

$$Y_{it} = \beta_0 + \beta_1 DECENT_{it} + \beta_2 TRANSFERS_{it} + \beta_3 EMARGIN_{it} + \beta_4 ELECYEAR_{it} \\ + \beta_5 TURNOUT_{it} + \beta_6 LITERACY_{it} + \beta_7 POVERTY_{it} + \beta_8 JUXTA + v_i + \varepsilon_{it}$$

where

$Y_{it}$  represents the local revenues (taxes or fees) per capita raised by municipality  $i$  at time  $t$  in real terms.

$DECENT_{it}$  is a dummy variable taking a value of 1 for the years from 1998 to 2001 (i.e. when the decentralization of federal funds started to operate), and zero for the years from 1990 to 1997.

$TRANSFERS_{it}$  is the per capita amount (in real terms) of federal transfers received by municipality  $i$  at time  $t$ . In order to analyze the specific effects of the two funds decentralized in 1998, I include both the FISM (earmarked for social infrastructure) and the FORTAMUN (earmarked for public safety and debt payments). Note that for all the years before 1998, the two variables take a value of zero, since they were just nonexistent.

$EMARGIN_{it}$  is the difference in the proportion of votes obtained by the two strongest parties in municipality  $i$  at time  $t$ .

$ELECYEAR_{it}$  is a dummy variable taking a value of 1 if municipality  $i$  had a local election at time  $t$ , and zero otherwise.

$TURNOUT_{it}$  is the total number of votes in the local election of municipality  $i$  at time  $t$ , divided by the number of potential voters.

$LITERACY_{it}$  is the proportion of people age 6 to 14 who knows how to read.

$JUXTA_{it}$  is a dummy variable taking a value of 1 if there was a divergence in party memberships between the president of municipality  $i$  at time  $t$  and the state governor, and zero otherwise.

$POVERTY_{it}$  is the proportion of workers earning less than the official minimum wage.

$v_i$  is a time-invariant, unit-specific component.

$\varepsilon_{it}$  is the residual, which in this model is assumed to be first-order autoregressive.

The second estimation model (i.e. the one that “interacts” competition with the remaining variables) is exactly the same as the previous one, except for the fact that the regression is run on the basis of two different sub-samples, and that the competition variable evidently has to be excluded from the right-hand side of the equation. Results are reported in Tables 4.2 and 4.3.

TABLE 4.2. GLS Random-Effects Regressions on Locally-Generated Revenues Per Capita, 1990-2001

	Property tax revenues per capita	User fees revenues per capita
Decentralization	-8.868* (4.101)	6.069*** (1.907)
FISM (earmarked)	-0.014* (0.007)	-0.026*** (0.004)
FAFM (earmarked)	0.001 (0.001)	-0.001 (0.001)
Revenue-sharing transfers (participaciones)	0.035*** (0.002)	0.041*** (0.001)
Margin of victory	-6.162* (3.097)	-4.848*** (1.441)
Juxtaposition	5.894 (3.386)	3.86* (1.581)
Voter turnout	-12.559* (5.395)	-10.209*** (2.511)
Electoral years	1.273 (0.88)	-0.311 (0.422)
Literacy	78.56*** (21.603)	34.922*** (9.836)
Poverty	-47.426*** (11.037)	-33.728*** (5.024)
Intercept	-31.882 (30.809)	22.798 (13.991)
Number of groups	1954	1954
Maximum number of observations per group	12	12
Total N	22785	22785
Overall R-squared	0.195	0.183

Note: Standard errors in parentheses. 11 year dummy variables are included (the omitted time period is 1990). 30 state dummy variables also included (the omitted state is Aguascalientes) Coefficients are not reported for ease of exposition. In all cases the disturbance term is assumed to be first-order autoregressive.

\*\*\*p<.001 \*\*p<.01 \*p<.05

TABLE 4.3. GLS Random-Effects Regressions on Locally-Generated Revenues Per Capita by Levels of Electoral Competition, 1990-2001

	Property tax revenues per capita		User fees revenues per capita	
	<i>High levels of electoral competition</i>	<i>Low levels of electoral competition</i>	<i>High levels of electoral competition</i>	<i>Low levels of electoral competition</i>
Decentralization (dummy)	-20.336** (7.623)	-11.913** (4.034)	5.616 (3.436)	-0.76 (1.858)
FISM (earmarked)	-0.03* (0.013)	-0.005 (0.008)	-0.033*** (0.006)	-0.017*** (0.004)
FAFM (earmarked)	0.001 (0.002)	-0.001 (0.002)	0.001 (0.001)	-0.001 (0.001)
Revenue-sharing transfers (participaciones)	0.031*** (0.003)	0.032*** (0.002)	0.071*** (0.002)	0.02*** (0.001)
Juxtaposition	12.191** (4.754)	5.797 (7.935)	4.155 (2.168)	10.318** (3.636)
Voter turnout	-49.472*** (12.797)	-13.06* (5.639)	-64.491*** (6.144)	-7.575*** (2.584)
Electoral years	-2.308 (1.734)	2.484* (1.056)	-2.357*** (0.757)	-0.097 (0.462)
Literacy	100.294** (35.303)	79.13*** (21.803)	47.647** (18.011)	33.165*** (9.656)
Poverty	-46.521* (18.463)	-57.747*** (11.104)	-45.441*** (9.417)	-34.984*** (4.897)
Intercept	-22.565 (44.135)	-19.118 (31.021)	42.755 (22.781)	18.111 (13.415)
Number of groups	1628	1799	1628	1799
Maximum number of observations per group	12	12	12	12
Total N	9602	13183	9602	13188
Overall R-squared	0.196	0.215	0.219	0.207
<p>Note: Standard errors in parentheses. 11 year dummy variables are included (the omitted time period is 1990). 30 state dummy variables also included (the omitted state is Aguascalientes) Coefficients are not reported for ease of exposition. In all cases the disturbance term is assumed to be first-order autoregressive.</p> <p>***p&lt;.001 **p&lt;.01 *p&lt;.05</p>				

#### **4.3.2. Discussion of results: does decentralization hurt taxation?**

Supporting the conventional view, per capita revenues from property taxes decreased during the years under which the decentralization of social funds for municipalities has been in operation, even after controlling for the specific effects of each year of the 1990-2001 period, as Table 4.2 reveals in its first row. However, the reduction has not been extremely large: on average, municipalities reduced their tax collection by no more than \$8.9 pesos per capita as a result of the decentralization. On the other hand, the proceeds from local fees do not seem to have decreased as a result of the decentralization. Quite the contrary, they increased by \$6 pesos on average. In short, only in the case of property tax revenues do we find a statistically significant (although not substantial) negative effect of the decentralization policy. However, we should also investigate whether the “intensity” of the decentralization across municipalities might have had a detrimental effect on revenues: that is, whether municipalities receiving more federal funds per capita are the ones who collect less tax revenues. This can be observed by analyzing the regression coefficients of the FISM and FORTAMUN variables in Table 4.2. Once more, in support of the conventional wisdom, we find that the FISM has decreased the collection of both property taxes and user fees, but the FORTAMUN has not had any meaningful consequence. Nevertheless, the negative effect of the FISM on tax revenues is still not very large: for every additional peso that municipalities receive from the social infrastructure fund, they decrease their collection of property taxes in only one cent (and in two cents in the case of user fees). Therefore, the evidence does not confirm that the consequences of the decentralization of social funds had been as severe as it has been claimed.

On the other hand, electoral competition seems to have encouraged, rather than discouraged, the collection of property taxes and user fees, although the magnitude of the effect is not substantially large: the difference in revenues between the two extreme cases of competition (i.e., between municipalities where the margin of victory is close to zero and those where the margin is equal to one) is over 6 pesos per capita in the case of property taxes, and almost 5 pesos per capita in the case of user fees, as it can be observed in the fifth row of Table 4.2.

Something similar occurs in the case of juxtaposed municipal governments, since they seem to improve the collection of revenues from both sources, although, once more, the effect is not very large. These findings agree, to a certain extent, with the earlier assertion that differences in party memberships between local mayors and state governors provide incentives to the former to expand their fiscal autonomy. This result also supports the hypothesis defended by some authors (Beer, 2004) that increasing levels of competition at the subnational levels encourage locally elected leaders to seek fiscal autonomy from the central government. The underlying logic of this proposition is that “politicians selected in competitive elections face incentives to extend their influence over greater policy domains in order to meet the demands of their constituents” (Beer, 2004, 181). Thus, higher levels of local revenue indicate that municipal governments enjoy greater fiscal autonomy, and this autonomy seems to result from the fact that electoral competition is more intense and that local politicians from opposition parties are more responsive to their electoral constituencies than to state authorities.

A variable that clearly is detrimental for the collection of local taxes is the turnout rate, which once more contradicts the claim that more participative municipalities facilitate tax enforcement. I strongly believe that this result reflects the fact that, in a context of high electoral mobilization (most likely induced by political parties), the



enforcement of unpopular policies (such as broadening the financial capacity of local governments) is problematical, since voters might press their formal authorities, even through informal means like protesting and other types of political mobilization, to break the formal rules required for an effective governance. The paradox here is that municipalities would be better-off by complying with their tax obligations, since this would allow every citizen to improve the provision of collective goods. However, modernizing the local tax system is a public good itself, since every citizen, on an individual level, is unwilling to contribute to improve the local public finances since everyone expects other taxpayers to bear the burden (the “free-rider” problem).

One surprising finding is that the collection of taxes does not fall in electoral years for any of the two sources of revenue, which somewhat contradicts political business cycle arguments. Yet, there is no evidence that the opposite occurs (i.e. that taxation increases during elections). Therefore, it seems that the influence of the electoral calendar on local public finances operates only through expenditures, but not through taxation: elections stimulate public works spending, reduce administrative expenses, and have not effect on taxation. However, transfers received by municipalities from the federal and the state governments could possibly be increased in electoral years, depending on a number of factors, such as the party membership of local mayors, state governors, and state legislatures.

Consistent with the results obtained in the analysis of public service provision, literacy rates have a considerable positive effect on local revenues: for every one percentage point increase in the rate of literacy in a municipality, property tax revenues increase by \$78.5 pesos per capita, on average, and user fees by \$35 pesos. We cannot completely rule out the possibility that literacy rates might be indirectly capturing the effect of other variables measuring local economic conditions. Nevertheless, the model

already controls for poverty levels and yet the effects of literacy remain. This is another indication of the importance of an educated citizenry on the performance of local governments in the country. On the other hand, as it was expected, increases in the rates of poverty predict a reduction of property tax revenues in the order of \$47 pesos per capita, and around \$33 pesos in the case of user fees.

The next question is whether the adverse effects of decentralization on local revenues are aggravated under a context of high electoral competition, given that incumbent authorities might be unwilling to undergo the potential political costs that taxation entails. The results reported in Table 4.3 seem to support this proposition, although not with great force. If we compare the magnitude of the effects of our variables of interest on local revenues between the two groups of municipalities (i.e. those with high and low levels of competition), we can clearly observe that the highly competitive cases (those whose margin of electoral victory is less than 0.2) perform worse. First, for the group with high electoral competition, Table 4.3 shows in its first row that property tax revenues decreased by \$20 pesos per capita during the years of the decentralization, whereas for the low competition group the reduction was of only \$12 pesos. On the other hand, revenues from user fees do not seem to have decreased during decentralization for any of the two groups. The effect of FISM resources on property tax revenues (second row of Table 4.3) is negative only for the highly competitive cases (three cents per peso received from FISM funds), while the second group was virtually unaffected by that federal fund. Likewise, the negative effect of the FISM on the revenues from user fees has been more intense within the highly competitive group (more than three cents) than for the low competition group (less than two cents). The other fund, the FORTAMUN (third row of Table 4.3), has not reduced tax revenues nor user fees revenues under any type of electoral context.

Political juxtaposition turns out being favorable for tax collection under nearly any electoral environment (except for property taxes in the low competitive cases, where its effect is not significant), which again corroborates the argument that “opposition” mayors seek policy autonomy from higher levels of government.

An interesting result is that of electoral years. Even though election years were found not to reduce local revenues within the whole sample of municipalities, when the sample is broken up in terms of electoral competition a differential effect comes into view: only for the highly competitive municipalities electoral years reduce local revenues, although the effect is only statistically significant in the case of user fees. Finally, the negative effect of the voter turnout rate is magnified when municipalities undergo high levels of competition. The differential effect of the turnout rate is substantial, in fact a more important one than the influence of the other variables that are claimed to reduce the tax performance of Mexican municipalities.

In summary, although the empirical evidence supports the assertion that local governments in Mexico have reduced their tax effort as a result of the combined influence of competition and the current decentralization policy, the magnitude of the effects is not particularly large. In contrast, the consequences of a highly mobilized electorate seem to be more harmful for the enforcement of local taxes, especially when party mobilization operates under a highly competitive environment.

#### **4.4. DECENTRALIZATION, COMPETITION, AND FISCAL PERFORMANCE: FINAL REMARKS**

This chapter has shown that the changing political landscape of Mexican local governments affects the allocation of local budgets and their taxing performance, but that their effects can best be evaluated in light of the policy setting under which municipalities

operate. The proposition that a more competitive, politically diverse, and participatory electoral environment improves the fiscal performance of local governments clearly depends on several factors not fully explored by previous research. Before the federal government decentralized the provision of local infrastructure in 1998, electoral competition and party alternation had only a stimulating effect over the levels of administrative expenditures, but not on infrastructure investments, an outcome that evidently disagrees with the mainstream expectation that electoral democracy serves as an effective mechanism to promote the accountability of incumbent politicians. However, once the decentralization policy was in effect, the consequences of competition and alternation were reversed, inducing local authorities to support the social infrastructure sector. This is, in my view, a strong indication that only under a more decentralized policy setting will the openness and competitiveness of the electoral arena have a positive influence on the provision of locally provided public goods. The main implication of this is that local democracy per se is not a sufficient condition to motivate local policymakers to invest on basic infrastructure projects: local governments require decision-making autonomy over resources to better take advantage of the opportunities that a more competitive environment presents. This proposition does not necessarily imply that local governments should be completely autonomous in their use of intergovernmental resources. As the analysis revealed, local authorities have a strong propensity to increase their administrative expenses when they get additional unconstrained resources, and it is unclear whether increasing current expenditures is the optimal strategy to improve their performance. Thus, some form of earmarking by higher governmental levels is still needed to stimulate the development of local infrastructure, especially if we take into account the significant deficiencies in basic service coverage that exist across the country. The earmarking of intergovernmental funds should not be

too rigid, as it was before the 1998 reform to the fiscal federalist system in Mexico, when many spending choices were carried out by federal agencies without the participation of local governments. For policy decentralization to succeed, some broad guidelines might be required to compel local authorities to allocate resources on basic infrastructure projects, and to involve citizens in defining spending priorities.

Another main conclusion from this analysis is that the nature of infrastructure spending in Mexico is highly political: it not only increases significantly during electoral years, but it is a useful means by which local authorities try to make themselves visible to the population, particularly when state governors have divergent party affiliations. The political character of infrastructure spending should not be necessarily regarded as a negative attribute since it might provide local politicians with a special incentive to invest on projects that are socially beneficial. However, it is also possible that, in order to obtain immediate political recognition, local politicians might choose projects that provide only short-term benefits to the population, thus preventing the development of infrastructure investments that require a longer period of maturation. Unfortunately, the available data do not allow us to evaluate with more precision the quality of infrastructure projects chosen by local governments.

Another important implication concerns local tax performance. The evidence presented in this chapter tends to support the hypothesis that the decentralization of federal funds to municipalities has damaged their tax enforcement, and that such a negative effect is worsened when incumbent authorities face a real threat of being removed from office. Although the magnitude of the effect of decentralization on tax performance was not found to be very large, we should probably take it as an indication that there are still problems in policy design. An intense debate is taking place in

Mexico, calling for a redesign of fiscal federalism.<sup>106</sup> One stance within that debate is that the federal government should increase the share of funds transferred to states and municipalities. However, in view of the empirical evidence discussed in this chapter, it is clear that any further devolution of resources should be tied to a clear definition of responsibilities, in such a way that sub-national and local governments can still be held accountable for their fiscal performance. In particular, the design of earmarked transfers should prevent municipalities to substitute locally generated revenue with funds from other levels of government.

Also on the tax performance issue, the strong negative effect of voter turnout on local revenues is a strong indication, in my view, that the enforcement of local taxes suffers when the local environment is highly mobilized by political parties. This constitutes another piece of evidence about the poor level of institutionalization of Mexican municipalities, where the strict implementation of public policies still depends on the capacity of parties to mobilize people against it.

There are a number of issues that remain unanswered and require further research. One of the most imperative is a more detailed analysis of how local governments make their spending choices at the very micro level. Although federal policy requires municipalities to incorporate citizen participation in the formulation of spending priorities, it could be the case that local authorities comply with this obligation only “on the surface” while actually practicing traditional clientelism (for example by allocating resources only to localities where their parties enjoy substantial political support). If this were the case, the goals of the decentralization policy might be distorted, since a budgetary process guided exclusively by party considerations could have very negative

---

<sup>106</sup> The First National Tax Convention (*Primera Convención Fiscal Hacendaria*) was initiated in 2004 to discuss policy alternatives to reform the current fiscal system in Mexico. The concluding chapter addresses some of their principal proposals.

consequences on the reduction of poverty levels. The next chapter will explore this issue, focusing on a set of municipalities in one of the most important states in the country, the Estado de México.

## **Chapter 5**

### **Decentralization and Municipal Performance in a Mexican State: the Case of Estado de México.**

The recent process of social fund decentralization to municipalities in Mexico has raised considerable concerns on the ability of local governments to generate socially desirable outcomes, mainly their willingness and capacity to prioritize resources to the poorest areas. Informational asymmetries characterizing the relationship between different levels of government, problems in the design of accountability mechanisms, and the proclivity of local political leaders to centralize policy decision-making and use partisan considerations in the allocation of resources, are all factors that might create the conditions for a poor decentralization performance.

In this chapter I use the Estado de México as a case study to illustrate how the decentralization of funds for basic infrastructure operates at the local levels of government, under a context of increasing electoral competition and governmental juxtaposition. The Estado de México provides interesting municipal case studies that can help us fleshing out some of the findings obtained through statistical analyses and unraveling some of the mechanisms that characterize the local policymaking process in the area of social infrastructure investments. The research approach adopted in this chapter is of a more qualitative nature, since the aim is to generate insights about the perception of key participants in the local policymaking process regarding the decentralization of social funds at the local levels, and contrast those insights with some of the major findings obtained in previous chapters. Still, an additional statistical test is



performed in the final section in order to corroborate some of the propositions derived from the qualitative analyses.

The Estado de México was chosen as a case study for the following reasons. First, municipal elections in the state have become extremely competitive, particularly since 1995, giving rise to numerous cases of party alternation and political juxtaposition. Second, despite this general increase in competition, there are municipalities where the PRI still enjoys reasonable margins of victory and which have never experienced the arrival of opposition parties to power, which allows contrasting cases in terms of their levels of electoral competitiveness. Third, the state has several municipalities that, given their relatively high levels of socioeconomic deprivation, have been entitled to receive a substantial share of federal funds to develop basic infrastructure projects since 1998, which has considerably increased the policy role that municipal authorities play in the allocation of local budgets.

The qualitative evidence was collected using semi-structured interviews and a focus group exercise. The interviews were conducted with state and municipal officials in the executive branch, particularly those who are regularly involved in making budgetary decisions. In the Estado de México government I interviewed two undersecretaries (*subsecretarios*), two general directors, and one unit officer, all belonging to the state Planning and Finance Ministry (*Secretaría de Planeación y Finanzas*). Four municipalities in the Estado de México were used for the study, which include Toluca (the capital of the state), Jilotepec, Soyaniquilpan, and Villa del Carbón. A total of 17 municipal level officials of the executive branch, including three municipal presidents, were interviewed. Only in Jilotepec it was possible to interview some local council representatives (*regidores*) from different parties, which was useful to contrast the view of the municipal president. A focus group exercise with community leaders was

also conducted there with the aim of getting their perceptions regarding the agenda-setting process. Some interviews were also conducted in the municipality of Zapopan, state of Jalisco, in order to have at least one case from a different state for comparison. All interviews were carried out between June 1<sup>st</sup> and August 20<sup>th</sup> of 2004.

With the aim of testing some of the propositions derived from the qualitative analyses, a new dataset was assembled based on locality-level data from a small sample of municipalities. The data were obtained from different governmental and non-governmental sources in the Estado de México, regarding municipal spending in localities, electoral results, and sociodemographic indicators.<sup>107</sup>

For this case study, I concentrate on the following issues. The first matter regards the constraints, formal and informal, that municipal governments face in their management of federal funds earmarked for basic infrastructure projects, especially taking into account that state governments have acquired considerable authority over the regulation and supervision of federal funds since 1998. I investigate the principal interactions taking place between the state and the municipal levels regarding the allocation of intergovernmental funds, in order to find out whether the political and bureaucratic actors involved in the policymaking process perceive that issue as a potential source of conflict. The second issue relates to the process through which the local public works agenda is defined and put into practice. I explore to what extent municipal governments involve the participation of communities in the formulation of their budgetary priorities, and whether local mayors tend to centralize decisions. The third issue has to do with the way federal funds are distributed by municipal governments within its territory. I investigate whether the allocation of funds is responsive to the

---

<sup>107</sup> The final section provides more details on the dataset and the information sources.

compensatory goals of the decentralization policy, and whether party considerations might be playing a significant role on the distribution of local budgets.

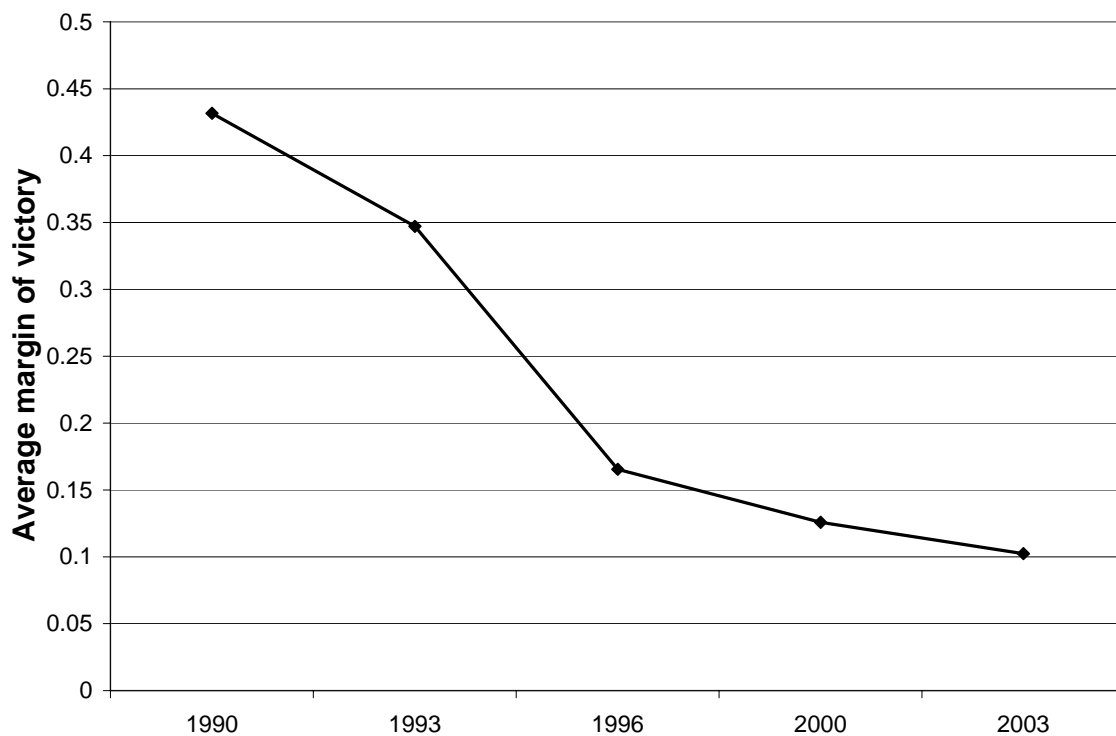
### **5.1. BACKGROUND OF THE STATE**

The Estado de México (also known in English as State of Mexico) is located in the center of the country, bounded by the states of Hidalgo, Tlaxcala, Puebla, Morelos, Guerrero, Michoacán, and the Federal District. The state is the most populated in the country (13,096,686 inhabitants in 2000, according to the last census), comprising more than 13 percent of Mexico's total population. The Estado de México is also the richest after the Federal District, contributing more than 10 percent to the national GDP, according to state economic indicators from INEGI. These characteristics imply that the Estado de México has a tremendous political importance, particularly for national elections. In 2002, the state had 124 municipalities, eight of which concentrate fifty percent of its total population. Another important fact is that 28 municipalities of the state border on the metropolitan area of the Federal District.

In the last ten years, the Estado de México has undergone remarkable changes in its electoral environment, since political competition has increased significantly, particularly at the municipal level. Figure 5.1 shows the evolution of electoral competition in the state throughout the last five municipal elections. The average margin of victory has been shrinking progressively since 1990, but its reduction was especially drastic in the 1996 election. As Table 5.1 illustrates, while at the start of the last decade the PRI controlled practically all municipalities in the state, now it governs only 68 out of the 124 existing within its territory. Since the PAN and the PRD have acquired a very strong presence in metropolitan municipalities bordering the Federal District, such as

Naucalpan, Tlanepantla and Nezahualcoyotl, these parties are currently governing the majority of people within the state.<sup>108</sup> Despite this widespread increase in political competition, the PRI still controls the state government, which evidently has given rise to numerous cases of governmental juxtaposition.

FIGURE 5.1. Evolution of Electoral Competition in Municipalities of Estado de México, 1990-2003



Source: Author's elaboration based on the database on municipal elections compiled by CIDAC ([www.cidac.org](http://www.cidac.org)) and from the Instituto Electoral del Estado de México, IEEM ([www.ieem.org.mx](http://www.ieem.org.mx))

<sup>108</sup> The fact that the proportion of people residing in municipalities governed by the PRI increased in 2003, as Table 5.1 shows, was only due to the fact that the PRI recovered Ecatepec, where more than 1.6 million people live.

TABLE 5.1. Distribution of Municipal Presidencies across Parties in the Estado de México, 1990-2003

Municipal term	PRI	PAN	PRD	Others	Share of the state population governed by a PRI mayor
1990-1993	117	2	2	0	99
1993-1996	109	6	3	3	97
1996-2000	71	23	26	2	48
2000-2003	67	30	23	2	27
2003-2006	68	24	23	9	40

Note: Throughout the 1990-2003 period the following three municipalities were created in the Estado de México: Valle de Chalco Solidaridad (1994), San José del Rincón (2002) and Luvianos (2002).

Sources: Author's elaboration based on the database on local elections compiled by CIDAC ([www.cidac.org.mx](http://www.cidac.org.mx)), for all the years between 1990 and 2000. Electoral data for the 2003 local elections were obtained through the Estado de México electoral institute ([www.ieem.org.mx](http://www.ieem.org.mx)).

## 5.2. REGULATORY FRAMEWORK

The decentralization of federal funds for social infrastructure in Mexico since 1998 has transferred considerable regulatory authority to state governments. The Mexican fiscal coordination law has granted them the responsibility to establish normative procedures to guide the process by which municipal governments gain access to earmarked funds for basic infrastructure. In addition, state governments define the minimum standards that municipal authorities should meet in order to formulate their policy priorities, taking into account the preferences of local constituents. State governments and legislatures have acquired –at least officially- significant oversight authority over the use of financial resources by municipal governments. Evidently, the actual way in which policy decentralization works at the state and municipal levels does not necessarily follow the formal route, since there are always information asymmetries

between governmental levels, the key players face dissimilar incentives, and the political imperatives that each actor faces can vary to a great extent.

The basic legal document that regulates the operation of the federal funds for basic infrastructure across the country is the *Fiscal Coordination Law*. This law was first established in 1978 to organize the fiscal intergovernmental relations in Mexico, in which most taxing instruments were centralized by the federal government, and the state and municipal levels started to receive revenue-sharing grants in exchange for giving up their authority over taxation. The law has undergone different changes since its creation, but one of the latest reforms was launched in 1997 during the Zedillo presidency. The reform created a new federal budgetary item called the *Ramo 33* (Item 33), which comprised several funds, earmarked for different policy sectors, that the federal government started to transfer to state and municipal governments. State governments were entitled to receive funds for the provision of primary education, technical education, health services, public safety, and social infrastructure. However, states were assigned only with the proceeds of 12 percent of this latter fund: the remaining 88 percent (which is called *Fondo de Aportaciones para la Infraestructura Social Municipal* (Municipal Social Infrastructure Fund or FISM) was completely assigned to municipalities, via the states. In other words, the federal government distributes social infrastructure funds to state governments, but they have to transfer 88 percent of those resources to their municipalities.<sup>109</sup> The distribution of infrastructure funds to the states is carried out through a formula that explicitly takes into account the relative poverty levels of each state. Likewise, states are required, for the distribution of funds to the municipalities, to use either the same formula utilized by the federal government, or an alternative method based on less information requirements. In any of the two cases, the formulae are

---

<sup>109</sup> The remaining 12 percent of the fund must be spent on state projects that have regional or inter-municipal impacts.

explicitly stated in the fiscal coordination law, in order to reduce the discretionary power of state governments to use political considerations in the distribution of funds. Municipalities can use the resources of the FISM only into the following spending categories: 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. Local communities can supplement FISM resources with their own contributions, which are typically made through the labor force of beneficiaries, but the people can also contribute with their own funds. Municipalities can use up to two percent of their available FISM funds to finance institutional development activities, such as training courses, consulting services, acquisition of computing equipment, etc.

Besides the FISM, municipalities (and the administrative regions of the Federal District) started to receive another fund for municipal strengthening called *Fondo de Aportaciones para el Fortalecimiento de los Municipios y de las Demarcaciones Territoriales del Distrito Federal* or FORTAMUN. The only criterion for the distribution of this fund is the population size of municipalities. Its earmarking is less restrictive than in the case of the FISM, since FORTAMUN resources can be used to cover the financial liabilities of municipal governments and public safety tasks (including the police payroll). FISM funds are very important sources of revenue for poor municipalities (due to its distributive criteria), whereas FORTAMUN funds are more relevant for cities whose poverty levels are not very high. According the *Cuenta Pública Federal* (Federal Public Accounting Report), in 2003 the FISM accounted for nine percent of the total amount of resources decentralized by the federal government to states and municipalities (the transfers that states receive to finance their public systems of education and health account for the other 77 percent).

The federal law requires municipal governments to promote the participation of communities in the formulation, implementation, and supervision of the projects carried out with FISM resources, which somehow resembles the approach adopted by PRONASOL (the principal poverty alleviation program launched during the Salinas administration, 1988-1994) for the allocation of resources. But it should be noted that, contrary to the previous decentralization policies, the regulation of the FISM is not anymore under the control of federal agencies, since now state governments are responsible to supervise its operation. Actually, the federal government lost substantial influence over the operation of these resources, since municipal governments are mainly accountable to state legislatures, and the law is vague regarding the federal control and supervision mechanisms.

The specific methods for the operation of FISM and FORTAMUN at the local levels are no longer formulated by the federal government. In its place, state governments have acquired this important role. In the case of the Estado de México, the basic regulatory instrument for the functioning of the two funds are the state operational guidelines (*Manual de operación*), compulsory for all municipalities of that state. For the 2003-2006 period, these guidelines were designed by officials at the planning and finance department of the Estado de México, with the participation of all municipal treasurers. The process for the operation of FISM and FORTAMUN resources can be summarized as follows. In January of every year, the state government has to publish the distribution of the two funds among its 125 municipalities. For their distribution, the state applies the federal formula, giving more FISM funds to municipalities where poverty levels are more intense.<sup>110</sup> Once municipal authorities know the maximum amount of available resources

---

<sup>110</sup> At an interview for this study, a state official at the planning and finance department declared that in order to assure an accurate application of the federal formula, they have constant interaction with federal officials. That is, despite the fact that federal authorities have lost decision-making power in the operation of the FISM, they nevertheless continue giving advice to state bureaucracies.



from the two funds, they have to initiate a participatory process to define the principal priorities in the municipality regarding social infrastructure projects.<sup>111</sup> The process of priority definition must involve the participation of community representatives, who are designated by each locality via an open election. It should be noted that municipalities have two options to organize the participation of the community in the formulation of policy priorities: one is the CODEMUN (Municipal Development Council), a deliberative and decision-making commission integrated by all community representatives, the municipal president, and all the members of the *cabildo*. Under the CODEMUN, the vote of every member has the same weight, except for the municipal president, whose vote can be used in cases of deadlock. The second option is called COPACI (Citizen Participation Council), a committee involving only community representatives, but without the participation of municipal authorities. In any case, every community elaborates a list of infrastructure priorities, and that list is submitted either to the CODEMUN or the COPACI, which elaborates the ultimate proposal. Once the proposal is voted, it is then submitted to the finance and planning department of the state government, which should verify that each of the projects contained in the proposal are consistent with legal standards. In other words, this is the stage in which state authorities enforce the earmarking of FISM resources. As soon as the proposals are approved by the state government, municipalities can initiate the implementation of the projects, but new community organizations should be created in every locality in order to oversee the completion of the works and the correct application of funds.

The scrutiny of FISM and FORTAMUN resources is performed by several institutions. The first are the oversight committees already mentioned, but they do not have any sanctioning authority, since they have to report any misuse of funds to the

---

<sup>111</sup> It should be noted that FORTAMUN resources are not subject to such a participatory method, since they only require the approval of the local council or *cabildo*.

internal controlling area of the municipal government. State governments have also their own controlling departments, and these are as well authorized to inspect the use of federal funds by municipalities. But the most important supervisory institution is the legislature of the Estado de México, whose general accounting office (the *Contaduría General de Glosa*), is in charge of reviewing every year the finances of municipal governments. The Social Development Ministry of the federal government (SEDESOL) can also exert a supervisory role over FISM funds, but the law is very unclear about the precise mechanisms it can use for that end. Actually, an official at that federal ministry declared in an interview that they have never audited any state or municipality since 1998. As it will be pointed out in the next sections, the supervision of federal funds is one of the weakest elements in the decentralization of social infrastructure, not only because the multiplicity of institutions taking part in the overseeing process makes it an extremely confusing task, but also because it does not promote the transparency in the use of funds by municipal governments.

### **5.3. THE PERSPECTIVE OF STATE GOVERNMENT OFFICIALS**

Given the important role that state governments have acquired for the regulation and supervision of FISM and FORTAMUN resources, I conducted personal interviews with five state officials at the planning and finance ministry, in order to get their perceptions about the performance of municipal governments in the operation of federal funds. These interviews helped me not only to increase my understanding on the formal process of budgetary allocations in municipalities of the Estado de México, but also to identify the informal mechanisms that emerge in the relationship between state and municipal authorities. My questions focused on three main issues. First, what results

they perceive the decentralization of federal resources has had on the fiscal performance of municipal governments. Specifically, if the devolution of spending authority to municipalities has created wrong incentives for their fiscal and budgetary behavior. Second, to what extent state officials perceive that the process of agenda-setting in the area of social infrastructure actually incorporates the participation of citizens, and whether municipal authorities tend to centralize decisions and use party considerations in their use of federal funds. Third, what has the Estado de México government done to foster the accountability and quality of municipal spending and taxing choices. It is important to stress that the evidence collected through this first round of interviews constitute the viewpoint of appointed, rather than elected, state officials, who do not have to face any type of political competition, and are not directly accountable to electoral constituencies (as municipal presidents and local representatives are). Therefore, we should always take into consideration the potential biases that these appointed officials might have regarding the performance of municipal governments.

There is a broad consensus among the government officials of the Estado de México that the decentralization of federal funds to municipalities has created wrong incentives for their fiscal performance. The first problem that all of them mentioned during the interview is that the availability of federal funds has reduced the taxing effort of municipal governments, an outcome that the regression results presented in Chapter 4 corroborate to a certain extent. They claim that the disincentive is even worse in the case of FORTAMUN, since these resources can be entirely used by municipalities to cover their financial liabilities and operating expenses. Even though the fund does not allow them to cover all administrative expenditures, municipalities have found ways to skip over the FORTAMUN labeling, mainly by categorizing current expenses as debt in order to have access to the fund. However, their perception that the federal funds have had

very negative consequences on the fiscal accountability of local governments should take into account the evidence presented in Chapter 4, where it was shown that the adverse effects of the FISM over local revenues are not as high as these officials imply, while the effects of the FORTAMUN are simply inconsequential.<sup>112</sup>

In order to discourage municipalities from reducing their taxing effort, in 2003 the government of the Estado de México introduced a new program called *Convenio de Coordinación Hacendaria* (Tax Coordination Agreement), which establishes a set of performance goals that municipalities have to accomplish in order to receive funding from the state government. The program developed several performance indicators that reflect the extent to which municipalities increase their collection of own-source revenues every year, and their degree of compliance with the modernization of their tax administration systems. In exchange, they are entitled to receive financial support from the state government, but the program does not make clear the precise amount of funding available. In fact, the reward is a discretionary choice of the different spending agencies of the Estado de México government, who will decide where to spend their available resources depending on their own policy priorities. That is, the incentive that the program gives to municipalities is not based on their own preferences, but on the investment areas favored by state bureaucracies and politicians. Given its high

---

<sup>112</sup> It should be noted that FISM and FORTAMUN resources are not the only transfers that municipalities receive from the federal government. Their principal source of funding are revenue-sharing transfers (*participaciones*), but these funds do not seem to dampen down the local fiscal effort, as Chapter 4 showed. According to a very high official at the finance and planning department, this outcome can be explained by the fact that *participaciones* are disbursed to municipal governments on a monthly basis, and the amount they receive every month depends on the economic situation of the country at that particular moment. In other words, the fluctuation that the Mexican economy undergoes throughout the fiscal year introduces great uncertainty about the precise amount of revenue-sharing transfers that municipalities will receive each month. Given this uncertainty, municipalities cannot completely anticipate their availability of federal revenue-sharing grants. Conversely, FISM and FORTAMUN resources are known in advance by municipal governments. An additional element that explains why federal *participaciones* do not discourage the local taxing effort is that 40 percent of their distribution depends on the amount of local taxes collected by municipalities, thus they would be penalized if they reduced their fiscal effort.

significance for the intergovernmental relations between municipalities and the state government, I will return to this issue in a later section describing the perspective of municipal authorities.

The criticisms of state officials to the performance of municipal governments are not restricted to the revenue side, but also to the expenditure decisions of municipalities. In their view, municipal presidents make a political use of federal resources, have too much influence on the definition of local priorities for basic infrastructure investments, commonly hinder the process of community participation in their municipalities, and many local authorities lack the necessary expertise to manage the allocation of federal funds. For example, they mentioned that municipal presidents get involved in the selection of community representatives, trying to appoint their own political loyalists, although in theory only the residents of localities have the right to take part in that process. State officials indicated also that municipal presidents usually try to push their favorite projects, even though these might not satisfy the desires of the communities. Another fact exemplifying the capacity of municipal authorities to control the budgetary process in the area of social infrastructure is the information advantage they have over the total amount of available resources. Before the process of priority definition starts, municipal presidents already know the total amounts of FISM and FORTAMUN resources they will have for the upcoming fiscal year, but they do not disclose that information to the community representatives. This evidently gives municipal authorities more negotiation power vis-à-vis the localities, since presidents can claim that a particular project favored by one community is financially unfeasible. Another example that illustrates the alleged political interference of municipal presidents is that the majority of municipalities in the Estado de México have chosen to organize the process of priority formulation with the use of the CODEMUN institution, rather than the

COPACI. Recall that the former is a committee where both community representatives and municipal authorities participate, while the COPACI involves only community organizations. According to one of my informants, the reason for this choice is that, under the CODEMUN, municipal presidents assure a centralized control over the use of federal resources. However, I believe that there might be other reasons explaining that choice, particularly the reduction of coordination costs that the use of the CODEMUN institution entails. Under the COPACI, the state government must evaluate as many investment proposals as communities exist in a municipality, since there is not a central agency coordinating the whole process of priority definition within the municipality. Under the CODEMUN, the municipal governments act as central coordinators of the process, submitting a unified plan to the state government for its evaluation. Evidently, the CODEMUN institution gives municipal authorities the opportunity to centralize decisions and possibly to interfere the participatory process. However, it does not necessarily imply a political manipulation by municipal presidents, since the relative strength of community organizations also matter for the agenda-setting. A final remark of state authorities is the lack of technical expertise among municipal officials to administer federal funds, particularly in the case of rural municipalities, which typically fail to comply with the technical standards established by the state government, and these failures are to a great extent explained by the poor training of local administrators. The weak professional capacity that characterizes the staff of rural municipalities reinforces their propensity to allocate resources according to political (and even personal) considerations.

In summary, the general perception of state officials is that the goals of the federal funds get distorted when they arrive at the municipal level, since the political manipulation carried out by local authorities and their lack of technical capacity

undermine the objective to allocate resources according to the levels of social need across communities. However, as I have pointed out, we should bear in mind that these informants are unelected authorities, which might have biased viewpoints regarding the performance of municipal governments.

Some state officials showed skepticism about the capacity of town councils or *cabildos* to act as effective overseers of the decisions of municipal presidents, since the latter has a strong control over the former. There are good reasons justifying their standpoint on this issue, since the electoral institutions of the Estado de México give a disproportionate share of seats in the *cabildo* to the party that wins a local election. That is, the distribution of positions in the *cabildo* does not reflect accurately the relative strength of parties in an electoral contest. Just to give an extreme example, in the case of Soyaniquilpan, the PAN won the 2003 election with 33 percent of the vote (the PRI obtained 32 percent), and it obtained 80 percent of the seats in the local council, which includes the municipal president, one *síndico* and six out of the eight *regidores*. Therefore, the control of municipal presidents over town councils is invariably assured by the current electoral legislation, and by the fact that council representatives from the president's party are very unlikely to vote against the presidential initiatives.

Many of the respondents pointed out that the problems that have taken place in the operation of FISM and FORTAMUN resources have their roots in how they were originally designed in the federal legislation. In other words, that the national fiscal coordination law did not contemplate the adverse effects that the new transfer system would have on the performance of local governments. A state official asserted that the earmarking of FORTAMUN resources by the federal law is too lax, since it allows municipalities to categorize many of their current expenditures as debt in order to cover them with the use of that fund. He claimed that the logic of the two funds runs in

opposite directions: the goal of FISM resources to promote the development of social infrastructure in the most deprived municipalities has been neutralized by the propensity of FORTAMUN resources to increase administrative expenditures and discourage the local taxing effort. The state government has tried to mitigate these problems by establishing more restrictions on the use of federal funds, but it has faced strong opposition from municipal treasurers. For example, the Estado de México government attempted to prevent municipalities from financing their financial liabilities with the use of FORTAMUN, but it failed due to the pressure from municipal authorities, who declared that the state government was violating the principle of “municipal autonomy”, and threatened state authorities with the possibility of taking legal action against that infringement. State officials recognize that the federal legislation is favorable to municipal governments, thus they would have good chances to win a court case relating to the operation of federal funds. An additional problem that state officials pointed out is that there are frequent delays in the disbursement of federal funds to municipalities. The reason for those delays, in their view, is that the fiscal coordination law requires state governments to publish their distribution of resources to their municipalities no later than January 31<sup>st</sup> of each year, but it is exactly on that date when the federal government publishes its own distribution of funds to states. This problem was confirmed during my interviews with municipal authorities, as I will show in the next section.

Another issue I discussed during my interviews with state officials is related to the evaluation and oversight of federal resources. Once more, my informants declared that this is another problematic element in the decentralization of funds, since the federal legislation is not strict enough in requiring municipal governments to release information about their use of funds. As stated by the fiscal coordination law, states and municipalities are supposed to inform the federal government (specifically to the



Ministry of Social Development) about the application of funds on a regular basis. However, this requirement is seldom fulfilled. In an interview for this study, an official at the cited ministry told me that states commonly fail to report that information, since they do not face any legal sanction for contravening that obligation. The other institutions with authority to evaluate and oversee the use of funds by municipalities are the executive branch of state governments, and the state legislatures. However, at least in the case of the Estado de México, the legislature does not reveal that information to the public, thus I was not able to obtain the data from that institution. The Finance and Planning Department, on the other hand, receives monthly information of FISM and FORTAMUN resources from municipalities, since they have to approve all the proposals for local infrastructure projects. They do not disclose it to the public either, but I was able to get some figures from one top-level official at that department. In summary, there are patent problems of transparency in the use of federal funds by municipal governments, and these are due mainly to the vagueness of the law on that matter. Large urban cities of the Estado de México are more likely to display information to the public (typically through their internet sites), but the remaining municipalities (which are commonly rural) do not provide it.

State officials affirm that differences in party membership between some municipal governments and the state governor is not an issue in the relationship between the two levels. This assertion was, however, challenged during my interviews with municipal authorities, as I will show in the next section. Some of my informants asserted that the alternation of parties at the municipal level has generated that incumbent local authorities blame the previous administrations for their mistakes.

In sum, I perceived in almost all my interviews with state authorities an unfavorable opinion toward municipal authorities, and their belief that only the state

executive branch has made an effort to improve the operation of federal funds at the local levels. In the next sections I present the point of view of municipal governments, contrast them with the testimonies given by state officials, and outline some basic propositions about the performance of local governments in their management of decentralized resources.

#### **5.4. THE VIEW OF MUNICIPAL AUTHORITIES**

In this section I present the perspective of municipal governments regarding the operation of federal funds at the local levels, where their implementation is actually carried out. My objective is to investigate the perception of municipal authorities regarding the influence of the state government on the distribution, operation and supervision of federal funds, and whether they believe those decisions have any political motivation. Also, I examine how municipal presidents organize the agenda-setting process for allocating public works resources, and how other players (for example opposition groups) take part in that process. This section will also help to contrast the point of view of state officials with the perspective of municipal authorities, and derive some general propositions regarding the performance of municipalities in their implementation of federal funds for basic infrastructure.

The principal research tool used in this section was semi-structured interviews with key participants in the local policymaking process, and I also conducted a focus group exercise with community delegates. In all cases I talked to municipal officials with responsibilities in the areas of planning and finance, since they are direct participants in the process of public work formulation and execution. Only in two cases I was able to interview the municipal president, but there I concentrated mostly on issues related to

their political careers, their perception on electoral competition and reelection, and their political relationship with state governments.

I focused on four municipal governments of the Estado de México, plus one belonging to state of Jalisco (the municipality of Zapopan). The reason for including this latter case is that it provides us with an additional point of comparison from another state, so that the discussion is not only focused on one institutional setting. In other words, it helps to analyze whether the operation of federal funds across the five municipalities exhibits shared patterns, regardless of the particularities of the two states. The Estado de México municipalities included in this study are Jilotepec de Molina Enriquez, San Francisco Soyaniquilpan, Villa del Carbon, and Toluca. Table 5.2 summarizes the characteristics of the five cases included in the study. As it can be observed, there are marked differences across the five cases in terms of their population size, levels of socioeconomic well-being, and economic structure, which makes them representative, at least to some extent, of the characteristics of other municipalities in the Estado de México. Zapopan is, by far, the most populated one (one million inhabitants), only followed by Toluca, the capital city of the Estado de México, whose population is close to seven hundred thousand. The policy issues that these two municipalities face are, evidently, very different from the problems smaller municipalities have to deal with. They also exhibit relatively low levels of socioeconomic deprivation (according to the Mexican Population Council statistics), which implies, in principle, that their share of federal funds for basic infrastructure is not very high. The other three municipalities, on the other hand, are more comparable, since their number of residents does not diverge too much, their levels of socioeconomic well-being range from medium to high, and a significant proportion of their workforce is employed in agriculture.

TABLE 5.2. Characteristics Summary for the Cases of Study

Municipality	Population (thousands)	Level of socioeconomic deprivation	Proportion of workforce in agriculture	Year when the PRI was defeated for the first time	Vote distribution in the last two elections (percentages)			
					Year	PRI	PAN	PRD
Jilotepec de Molina Enriquez	68.3	Medium	24	Never	2000	53	41	4
					2003	58	37	3
Soyaniquilpan de Juárez	10	Medium	33	2003	2000	49	47	2
					2003	44	54	0.06
Toluca	667	Very low	2	2000	2000	39	46	9
					2003	39	40	13
Villa del Carbón	38	High	33	1996	2000	40	41	3
					2003	32	33	8
Zapopan (Jalisco State)	1000	Very low	2	1995	2000	35	50	8
					2003	44	43	3
Sources: INEGI, <i>Censo de Población y Vivienda 2000</i> ; Instituto Electoral del Estado de México ( <a href="http://www.ieem.org.mx">www.ieem.org.mx</a> ); Consejo Electoral del Estado de Jalisco ( <a href="http://www.ceej.org.mx">www.ceej.org.mx</a> ); CONAPO, <i>Indíces de marginación a nivel municipal</i> ( <a href="http://www.conapo.gob.mx">www.conapo.gob.mx</a> ).								

Regarding their political environment, there are also differences across the municipalities. Jilotepec constitutes the only case in the sample where the PRI has never been defeated, and it still enjoys ample electoral support among voters, which reduces the threat of being thrown out of power by the PAN, its principal political opponent. The other four cases, on the other hand, have undergone the alternation from the PRI to the PAN at least on one occasion, and all of them have exhibited very high levels of electoral competition in the two most recent elections. My sample includes two municipal governments currently under the control of the PRI (Jilotepec and Zapopan), and three governed by the PAN (Soyaniquilpan, Toluca and Villa del Carbon). The fact that the current governor of the Estado de México belongs to the PRI (as it has always occurred in that state until now) and to the PAN in Jalisco, implies that my sample involves three cases of “juxtaposition”, where the party affiliation of the municipal president and state

governor diverges. As I demonstrated in previous chapters, government juxtaposition is an important independent variable explaining differences across local budgetary allocations, thus I pay special attention to it in my case studies.

It should be noted that my selection of cases was influenced by the willingness of people to participate in this study, which might raise some reservations about potential selection biases. Nevertheless, I do not consider that those biases are too strong, as I was able to confirm from interviews with academic researchers in Mexico who specialize on local policy issues (specifically in the Estado de México).<sup>113</sup>

#### **5.4.1. Jilotepec de Molina Enriquez**

Jilotepec is located to the north of the Estado de México. According to the city code (*bando municipal*), the municipality is integrated by 51 localities, being the county seat the most populated one (10,500 inhabitants). In 1990, its economic structure was predominantly agricultural (43 percent), but ten years after only 24 percent of its workforce was employed in that sector. Up through the last election in 2003, the PRI has never been defeated, and it still enjoys a significant electoral margin with respect to its next political opponent, the PAN, which in the 2003 election obtained 37 percent of the votes. Jilotepec has always been an important political base of support for the state PRI, thus having a privileged relationship with the governors of the Estado de México, all of which historically have belonged to that party.

---

<sup>113</sup> I am grateful to Cecilia Cadena and Carlos Quintana from *El Colegio Mexiquense*, and to Mauricio Merino from CIDE, for their opinions and suggestions.

According to the current municipal president, the principal problem the 2003-2006 administration faced at the beginning of its term was the lack of financial resources, due to the high debt inherited from the preceding government, also from the PRI. Another concern of the current administration when it took office was that it faced the resistance of many members of the previous staff, who did not belong to the same political group as the new government and were removed from their jobs.

When asked about the principal innovations or actions introduced by his administration, the president mentioned that the staff started to receive training to improve the negative perception of citizens regarding their local authorities. Another element launched by his administration was the adoption of a new communication strategy with the citizenry characterized by daily visits of the president to the localities, where public works projects are negotiated and agreed. Besides improving the information the government needs for its decision-making, this practice also provides him with a political benefit, as far as people in the communities get to know their president and thus he can claim credit for the public works done in each of them. Actually, the president considers that public works projects constitute his principal political tool.

The president asserts that the increase in electoral competition has improved the accountability of governmental authorities not only to their citizens, but also to their own parties. In the case of the PRI in the Estado de México, the party has established a new system to evaluate the performance of their municipal presidents, based on several instruments. For example, the party conducts regular surveys to detect the perception of citizens about their governments, it provides training courses to its winning candidates before they take office, and presidents are responsible to report to their party the public

works they have carried out, and the frequency of their visits to the localities. All these innovative methods are, in his view, a consequence of the rise in electoral competition, which has forced political parties to adopt new strategies to make the selection of candidates more responsive to the preferences of the electorate. However, the high competitiveness of the electoral arena does not seem to have changed very much the opinion of political actors regarding the possibility of consecutive reelection for public posts in Mexico. When asked about his view on this issue, the president declared to be against the reelection of municipal presidents, since such a policy would result in “bad officials staying in power for too long periods”. His rationale for opposing reelection suggests that democracy is not yet regarded by politicians as an accountability mechanism itself, since they have considerable reservations about the capacity of citizens to punish deficient leaders through the use of their votes. In my interviews with other municipal officials the same type of argument was used to oppose reelection.

Regarding the allocation of federal funds for basic infrastructure projects, the president claimed that the process of priority definition is entirely under the control of local communities, and that his government does not interfere with the way funds are decided at the community level. This idea was supported by municipal officials at the finance and planning areas, where respondents basically restated what the regulatory framework describes. However, this notion was challenged by a representative of the local council belonging to the principal political competitor of the local PRI in Jilotepec: the PAN. According to the councilor, there is a lack of transparency about the use of federal funds in Jilotepec, since the president does not inform the local council about the criteria used for their allocation. Actually, in her view the local council lacks effective

access to the information of most policy issues in the municipality (as an example she mentions that the high debt acquired by the previous administration has never been clarified by the current government), and it is normally excluded from many important issues (for example, although she is formally in charge of the tourism commission, she was left out from its integration process). Also, the *regidora* stated that public works projects are heavily “politicized” in the municipality, given that the president tries to influence the election of community councilors and delegates, often creating severe conflicts (including violence) among the people. Even though not every attempt to manipulate the process has succeeded, the wish to secure the political control of resources by the president has damaged the personal relationships between neighbors. In localities where the PAN is stronger, the interviewee claims that the priorities of the community are not respected, since the municipal government imposes its own choices.

Since the views of municipal authorities (both the officials appointed by the president and those elected directly by the people) are very likely to have biases due to their own political loyalties, I used a focus group methodology to get the perceptions of the people who are closer to the infrastructure needs of communities in Jilotepec. This exercise incorporated the participation of ten “municipal delegates”, who are auxiliary authorities elected by the neighbors of each locality in an open assembly, and serve as intermediaries between the municipal government and the people. Delegates are responsible to detect the needs of their communities and inform the municipal government about those that are more urgent. Formally, they are not public employees, since they do not receive any remuneration. Delegates also take part in the process where infrastructure priorities financed through the FISM are formulated, but we should be



aware of the fact that they are not the same “community representatives” that the FISM regulatory framework establishes. In reality, however, delegates have a stronger influence on the process of priority definition compared to the other community representatives, since they last in their posts during the three years of the municipal term (community representatives are changed every year), and they are better known to the people.

The focus groups exercise attempted to get the views of municipal delegates on three basic issues. First, how they perceive the transparency and fairness of the process for the allocation of public resources for infrastructure. Second, the degree and forms of citizen participation during the process. Third, the extent to which the process is actually influenced either by the municipal president, or by other political groups. All the participants agreed in pointing out that the process by which federal funds for basic infrastructure are allocated and managed has become more transparent, regular, and less susceptible to manipulation, at least as compared to the way public resources were allocated in the past. In their view, the current system operates under a more watchful environment, since the oversight committees prevent resources to be wasted, and there are better control mechanisms than in the past. For example, one of the participants mentioned that, before the current system started to operate, materials were often damaged due to the lack of oversight and control. Another feature suggesting a more rational use of resources is that municipal authorities give priority to projects affecting large population segments, rather than isolated areas. Nevertheless, delegates in the focus group identified several problems with the current system. Everyone had the opinion that the most salient problem is related to the task of securing the participation of

the people in the formulation, implementation, and evaluation of public works projects. In general, citizens fail to attend the regular meetings where most issues about their localities are discussed and incorporated into the policy agenda for its solution. But people also refuse to contribute (either with labor or financially) to the execution of projects. Delegates claim that, since people have become familiar with the availability of federal funds for municipal infrastructure, they take for granted that those resources are sufficient to cover most of their needs, and thus are less willing to make direct contributions. Evidently, some people are more likely to involve themselves in the process than others, but in general women tend to participate more than men, given that they are closer to the problems occurring in their localities. Another problem that the group of delegates pointed out is that political parties interfere very often during the process, misinforming the people and creating tensions between them. Commonly, when political groups (typically people supporting the PAN ) in a given locality become aware of the public works carried out by the municipal government in other localities, they mobilize the people of their communities to pressure the government. None of the delegates in the focus group mentioned the president as trying to control the process; however this might reveal that delegates do not want to harm their relationship with the municipal government, since they interact recurrently with it. Nevertheless, everyone agreed that, at the beginning of the process, communities lack information about the precise amount of federal funds available for public works, which confirms the information asymmetry I suggested in previous paragraphs. When asked about their interactions with other municipal authorities, the respondents declared that their relationships are stronger with municipal directors (i.e. appointed officials) than with

cabildo members, another piece of evidence suggesting that local councils are not a very important institution for local governance in municipalities of the Estado de México.

#### **5.4.2. Soyaniquilpan de Juárez**

Soyaniquilpan is sited in the northwestern region of the state. It is integrated by 13 localities, including the county seat, San Francisco Soyaniquilpan, where 3,735 people reside. Since the remaining localities have less than 2,500 residents, it is categorized as a rural municipality. According to the most recent population census, 33 percent of its workforce was employed in agriculture in 2000, which to some extent resembles the economic structure of Jilotepec. The levels of electoral support for the PAN have been progressively increasing since 1990, but it was until 2003 when the PRI was defeated for the first time, by a margin of ten percent of the votes.

As in the case of Jilotepec, the entering municipal government faced a lot of financial problems when it started its term, but in Soyaniquilpan things were probably worse, given the non-PRI affiliation of the new administration and the fact that this was the first experience of party alternation in the municipality. Besides acquiring a very high debt, the previous PRI administration withheld relevant information from the upcoming PANista government, thus forcing it to dedicate most of its time to negotiate the inherited debt with its creditors. The president claims that being his administration a PANista government has created problems in their relationship with state authorities, particularly regarding financial aid, since the state government has put too many restrictions for disbursing funds to the municipality. However, these problems have not occurred in the case of FISM funds, since the state government does not have too much

influence over their distribution. Actually, the president affirms that FISM resources constitute the only available revenue source for the municipality to carry out public works, given that its taxing base is too small. Besides negotiating the debt with its creditors, the first undertaking of the municipal government was to drastically cut the level of current expenditures, since they constituted a very big burden. The president claims that the reason why the level of current expenditures was too high is that the previous government used to pay onerous bonuses to its employees, plus other unnecessary expenses. The savings resulting from such reduction has permitted his administration to build a new public market and a recreation center.

In his view, electoral competition is beneficial for the accountability of public officials, since the votes of citizens can serve as a punishment instrument. Once more, the president declares to be against the possibility of consecutive reelection of local mayors, since he believes that the no-reelection clause prevents bad leaders to stay in power for too long periods. He claims also that opposition parties represented in the town council or cabildo (mainly regidores from the PRI) systematically try to block his government by creating an environment of confusion and misinformation in the municipality. It should be noted that the president is a former PRIísta, but he agreed to compete in the 2003 election as a candidate of the PAN, given the many conflicts taking place within the local PRI group.

Soyaniquilpan represents the typical case of a small municipality with very limited resources for service provision, thus requiring the support from higher governmental levels. The fact that its president belongs to a party different from the state governor's has put it in a situation in which municipal authorities have to accept most of the conditions imposed by the state government to get access to the intergovernmental aid. However, as I will show below, federal funds are not subject to too much

interference by state authorities (at least that is the perception of municipal officials in Soyaniquilpan), thus constituting a reliable funding source. On the other hand, the small institutionalization of the local government often means that local officials have to improvise their work, without having a clear and consistent strategy of policy formulation and implementation.

My interview with the municipal treasurer of Soyaniquilpan focused on fiscal management issues, specially the local operation of the federal FISM fund, and the relationship with the state government. He states that, despite the widespread perception among municipal authorities that state officials interfere with the distribution of federal funds, the state government has not that much opportunity to manipulate resources, since the state legislature exerts a strong oversight over these funds. He confirmed that every month municipalities report their application of FISM funds to the legislature, however Soyaniquilpan has never been audited by the legislature since the current government started its term. When asked about the criteria for the distribution of federal funds to municipalities, the treasurer revealed very little knowledge about such rules, and I suspect this lack of knowledge is very widespread across municipalities in the state (see also Rodríguez, 1997).

Soyaniquilpan has already signed the Tax Coordination Agreement (i.e. the *Convenio de Coordinación Hacendaria*) with the Estado de México government because authorities perceive that doing this will allow them to continue having access the expenditure projects of the state government. He does not think that these resources have a political bias based in party memberships, but that their distribution depends on the specific priorities of each bureaucratic agency of the state government. For example, Soyaniquilpan has benefited from several investment projects of the state department of education, while it has not received any support from the department of agriculture.

Thus, in his view it would be misleading to affirm that state resources are allocated only on the basis of political considerations, since the priorities of each state bureaucracy have an important influence on how projects are distributed across the municipalities of the Estado de México. The treasurer corroborated the fact that the state government attempted to restrict municipalities from using FORTAMUN resources to cover some of their financial liabilities, but that this effort failed due to the opposition of most municipal treasurers in the state.

Although the CODEMUN in Soyaniquilpan already had completed the process of priority formulation for basic infrastructure by the time I interviewed the president and the treasurer, they had not started executing any project. The reason for such delay was that the municipal government had not yet fulfilled all the technical and procedural requirements established by the regulation of FISM resources, due to their lack of personnel with expertise on these matters. Again, this fact confirms that the low institutional capacity characterizing most municipalities in the country is one of the principal problems for the local operation of federal resources.

Finally, the treasurer mentioned that municipal delegates play a central role during the process of priority definition for public works, even a more important one compared to the role community representatives play. Delegates are the principal intermediaries between the municipal government and the local citizens. Indeed, local authorities usually refuse to process any request from the citizens, unless it has been previously endorsed by the respective delegate.

### **5.4.3. Villa del Carbon**

Villa del Carbon represents another case of party alternation at the municipal level in the Estado de México. Alternation occurred for the first time in 1997, being the PAN the winning party. Since that year to the present, the PAN has continued governing this municipality, but with very low margins of electoral victory. In the 2003 election, there was only a one percent difference in the proportion of votes between the PAN and the PRI. The fact of being ruled by the PAN uninterruptedly for the last six years has implied that the transitions from one administration to another has taken place very smoothly, allowing a good deal of stability within the municipal staff. For example, the current administration (2003-2006) incorporated many of the employees working during the previous one, including the municipal president himself, who used to work as director of public works. In order to preserve the stability in the municipal staff, some local officials have been considering the creation of a civil service system, an idea that is highly innovative, especially if we take into account that municipalities in the country generally use informal procedures to recruit their governmental staff.

My interviewees pointed out that one of the principal innovations introduced by the current administration was the creation of an administrative area in charge of coordinating all the information processes within the municipal government. The modernization of the internal information system, which was one of the president's campaign promises, has already rendered positive results, for example it facilitated the elaboration of the first annual government report, since the information provided by all administrative areas was easily brought together for that end.

When asked about their views on removing the constitutional ban to the reelection of local mayors, my respondents declared to be in favor of that idea. According to them,

allowing mayors to be reelected for consecutive periods would improve the continuity of programs, and it would also reduce the problem of administrative inexperience among the municipal staff. This was the only case where I found a favorable opinion towards reelection.

Regarding the relationship between Villa del Carbon and the Estado de México government, my interviewees pointed out several aspects that are problematic. One are the frequent delays in the delivery of federal funds by state authorities. They claim that, even though the state government does not have any influence on the distribution of federal funds, they indeed are responsible for those delays. Another issue they regard as problematic is the *Convenio de Coordinación Fiscal*. The treasurer believes that the *Convenio*'s stipulations are too many, and that there is lack of clarity regarding how investment resources will be distributed, since state agencies have substantial discretionary power over those decisions, without the participation of municipal governments. Also, the *Convenio* originally attempted to withdraw a portion of the revenue-share transfers from municipalities who failed to cover their financial obligations with the state government, but that measure was finally left out. Despite municipal authorities of Villa del Carbon regard the *Convenio* as having several shortcomings, they finally agreed to sign it, which in my view reflects once more that smaller municipalities, lacking sufficient revenues from their own sources, have no other choice than agreeing to the terms established by the state government in order to secure its funding. The treasurer points out that the investment decisions of the state government are heavily influenced by political motivations, but this does not occur in the case of federal funds. On the other hand, the earmarking of federal resources is, in her view, too rigid. In the case of the FORTAMUN resources, for example, the treasurer asserts that the municipality would prefer to use them for public works, but the law prevents them to do



it. Something similar occurs in the case of projects strongly favored by residents of Villa del Carbon (for example the construction and conservation of churches, parks or markets), where federal resources cannot be spent. In order to support the development of these projects, the municipal government has no other source of funding than its own revenues.

The mechanisms for setting up the public works agenda in Villa del Carbon have involved the participation of both municipal delegates and community representatives, but they acknowledge that their roles should be further clarified in order to avoid confusions and overlaps. The current administration has encouraged the representatives of every locality to visit the other communities in the municipality, so they all can get to know the works that have been carried out all around the municipal territory. This constitutes, in my view, an indication of the willingness of local authorities to inform the public about their actions, and that they do not regard this practice as a potential source of conflict with the residents of other localities. However, as in the other cases, my interviewees claim that opposition groups (especially the PRI regidores at the local council) systematically try to block every presidential initiative, since their party instructs them to do so. Dealing with opposition groups constitutes, in their view, one of the most arduous tasks for the president and his staff.

#### **5.4.4. Toluca**

My interviewees asserted that there is too much influence of the state government on the regulation of the FISM and FORTAMUN funds. Actually, they claim that the state regulatory framework should not exist in the first place because it goes against the principle of “municipal autonomy” established in the national constitution, and it also contradicts the federal fiscal coordination law. In their view, not only the state government excessively earmarks the federal funds, but its system of supervision and control of municipal budgets are disproportionate and confusing. In addition to the state legislature’s general accounting office, the state executive branch has its own controlling department, and all municipalities are required to report every month their use of federal resources. According to the treasurer, this system is burdensome, since all municipalities in the Estado de México have to physically transport every month tons of documents to the central headquarters of the state government in Toluca, and it is unclear whether all that information is actually used for evaluation purposes. The enforcement of the oversight system is, in his view, very discretionary, since the financial inspections performed by the state controlling office are not subject to clear and stable rules. This evidently creates an environment of confusion among municipal governments, since the oversight system is often used as an instrument to punish the governor’s political opponents. Another problem created by the state fiscal norms is that they have changed the incentives of municipal authorities on how they report their budgets. My respondents assert that, since the FORTAMUN has so many restrictions for its use, municipalities have been left with no other choice than defining many of their spending categories as debt in order to be able to use those funds. This confirms what most state government

officials reported during my interviews, but Toluca authorities blame the excessive state regulations as directly causing these problems.

One of my interviewees uses several examples to support his claim about the political motivations of the state government in its relationship with municipalities. His first example is the case of the previous local government of Toluca (also from the PAN), which had a bad relationship with the Estado de México government. According to my informant, that fact implied that the former Toluca administration was subject to a series of unnecessary financial inspections performed by the state government, thus suggesting that the system is often used as a political punishment tool. The previous administration also faced considerable delays in the delivery of resources by the state government, and my informant claims, once more, that this was due to their bad relationship. Another instance exemplifying the political biases in the allocation of resources by the state is, according to my informant, the favoritism in the funding of major urbanization projects. He mentions the case of Atlacomulco (another important municipality of the Estado de México that has always been under the control of the PRI), where the state government financed totally the construction of a new viaduct. A very similar transportation facility was initiated in Toluca, but the state government refused to provide support for it, thus the project had to be financed only through the resources of the municipal government. According to the treasurer, this case illustrates the preferential treatment that the state government gives to municipalities governed by the PRI.

One of the informants mentioned that authorities of several municipalities governed by the PAN in the Estado de México, including Toluca and those in the metropolitan areas nearby the Federal District, have considered the possibility of taking legal action against the state regulations regarding the operation of federal funds, which again corroborates what state officials reported in their interviews. However, they have

decided not to start such a legal controversy in order to avoid further conflicts with state authorities. On the other hand, Toluca has refused to sign the *Convenio* with the state authorities, since the treasurer claims that its rules are too vague, and it is intended to satisfy only the priorities of the state government, not those of municipalities. For example, the treasurer asserts that Toluca can easily meet the taxing effort standards established in the *Convenio*, making it eligible to receive investment funds from the state. However, they still do not have enough incentives to join it, since the amounts of the state funding are uncertain and they would nevertheless not respond to local priorities. This assertion confirms my suggestion that larger municipalities are not motivated to accept a fiscal relationship with the state government in which the latter defines most of the terms, since those municipalities have more resources of their own that can be allocated with more autonomy to the specific priorities of local policymakers. In contrast, smaller municipalities have less choice.

Regarding the relationship between the municipal president and the local council (*cabildo*), my interviewees reiterated what other local officials reported during the interviews: that the systematic opposition of councilors to the initiatives of the president obstructs the negotiations in the *cabildo*. They contend that the current Toluca administration has, nevertheless, adopted a lenient attitude in the negotiation with all council members, and still has agreed to carry out policy initiatives coming from non-PAN representatives.

#### **5.4.5. The municipality of Zapopan, State of Jalisco**

When the current local administration of Zapopan took office, it found three principal problems. First, authorities encountered a marked situation of social inequality

across the different localities of the municipal territory, despite the fact that the municipality, as a whole, ranks reasonably well in several socioeconomic indicators compared to other municipalities in the state of Jalisco. The current administration has identified at least six areas with high poverty concentration levels. Second, there is a preoccupation regarding the disordered urban growth, which has started to affect several agricultural areas and natural reserves. Third, authorities assert that the local budget is heavily tagged, thus restricting considerably the capacity of the local government to reallocate resources toward the development of public works.

Officials regard the increase in electoral competition as a positive sign, since it is an essential condition for local democracy. In their view, the fact that the current government won the presidency with very low margins of victory and with the recognition of all the contending parties, has increased its legitimacy. They also believe that, as a result of electoral competition, citizens have become more aware and better informed about the actions of their government, since they know that their votes matter for the political survival of local politicians. Officials claim to be conscious about this new reality, thus trying to improve their performance.

The process of policy formulation in the area of basic infrastructure in Zapopan is, to a large extent, similar to that in the Estado de México. The basic level taking part in the process of agenda-setting is the neighborhood (in the case of urban areas) or the locality (in the case of rural zones). Community leaderships and organizations are articulated at this level, starting by performing an initial assessment on the needs of their communities, and elaborating a list of priorities. Once communities have defined their most urgent needs, regional subcommittees representing the 13 regions of the municipality are in charge of analyzing and approving all the proposals generated. Finally, a work commission integrates all the proposals and validates them. The

participation of communities is not restricted only to the formulation of public works priorities, but people also take part in the evaluation and oversight of the projects. My informants never mentioned any problem related to opposition parties or groups obstructing the process of agenda-setting (as it was the case in the municipalities of the Estado de México included in this study). In their views, the only difficulties that occasionally emerge have to do with personal antagonisms between neighborhood representatives. They claim that the intensive public consultation process that precedes the approval of the local budget restricts the capacity of the local government to use federal resources as a political instrument. Also, the local government would risk paying a large political cost if authorities attempted to allocate resources giving preferentiality to some groups for political reasons.

It is important to note that, prior to the beginning of the agenda-setting process, the Zapopan government defines upper budgetary limits for each of the 13 regions, according to the poverty levels existing in each of them, giving preferentiality to the most disadvantaged regions. Besides improving the focalization of resources, this practice considerably reduces the possibility of political manipulation of funds by local leaders. In my analysis of municipalities in the Estado de México I did not find any case in which such a process of ex-ante budgetary management was carried out.

Officials reported that the Jalisco state government does not have too much influence on the allocation and operation of federal resources, but in general they were very reluctant to go into more details about the relationship between Zapopan and the state authorities. When asked about any problems arising from the party divergence between the municipal president and the state governor, my informants declared only that these two actors maintain an official and respectful relationship.

## **5.5. SUMMARY OF IMPLICATIONS FROM THE CASE STUDIES**

The interviews with state and municipal officials provided valuable insights about the operation of intergovernmental resources at the local levels. They also allowed substantiating some of the findings obtained from the quantitative analyses. However, in no way the interviews and focus group exercises constitute conclusive evidence on this matter, since their views are evidently influenced by their respective political positions and bureaucratic loyalties.

The financial shortages that municipal administrations faced during the first months of their term was a recurrent issue in most of the municipalities included in this study. Previous administrations were usually blamed for being the direct cause of fiscal deficits, given the excessive spending levels they incurred during the last year of their terms and their propensity to inherit their obligations to the subsequent government. Evidently, political factors played a relevant role in creating these problems, for example in the case of Soyaniquilpan, where the first experience of party alternation from the PRI to the PAN was marked by the attempt of the defeated PRI group to harm the governing capacity of the new PANista presidency by withholding important administrative and financial information. But the problem also took place in a case in which alternation of parties did not occur, as in Jilotepec, where the former PRI administration inherited a large deficit to its successor. Thus, although the problem has a political component, I believe that it is symptomatic of the low levels of institutionalization that characterize the governance of municipalities all along the country, particularly the absence of effective mechanisms for public accountability in the municipal sphere. For example, in none of the cases analyzed the state legislature took any action to penalize the lack of fiscal discipline of the authorities of the preceding administrations, which implies that the

public oversight system in the Estado de México does not have the sufficient capacity to hold local politicians accountable for their actions. It should be also noted that the tendency of previous administrations to overspend before they leave office confirms what my statistical analysis of local budgetary allocations revealed: that in electoral times municipal governments are more likely to increase their spending on public works projects, while decreasing their administrative expenses.

The high levels of instability that characterizes the municipal staff is another factor affecting the transition from one government to another. During their first months in office, not only municipal authorities have to deal with the financial problems inherited from the previous administration, but they also spend most of their time learning the necessary skills to run the local government. Consequently, there is little scope for policy innovation. Only in the case of Villa del Carbon a new managerial instrument was adopted for the modernization of the local administration, and this improvement was part of the candidate's programmatic agenda during his campaign. The relative stability of the municipal staff in Villa del Carbon since the PAN won the presidency in 1997 might be a factor allowing at least incremental policy innovations. It also permitted that the most recent transition process took place in a relatively well-organized way. Evidently, the relative stability in the municipal workforce is attributable to the continuity of the local PANista group in the presidency since 1997. However, this equilibrium is fragile, since it is not based on enduring institutions (for example on the existence of a civil service system), but on a short-term political agreement that might come to an end if the PRI recovers the Villa del Carbon presidency in 2006.

The perception of municipal authorities regarding the increase in electoral competition was, in all the cases analyzed, a positive one, since most of my interviewees believe that competition fosters governmental accountability. However, most of my



informants had an unfavorable opinion about allowing the consecutive reelection of local mayors. In all cases, their rationale for opposing such a measure was based on the notion that reelection would enable ineffective leaders to stay in office for too long periods. This justification implies, in my view, that local politicians distrust the capacity of electoral constituents to use their vote as an accountability mechanism. Only in the case of Villa del Carbon, respondents supported reelection, although they mostly regarded it as a measure for improving policy continuity and administrative professionalization.

Regarding the allocation of federal resources, there is a widespread consensus among municipal officials that the rules for their distribution and local operation are more transparent and better structured than in the past. The fact that their distribution is formula-based has considerably reduced the uncertainty about the availability of funds in every fiscal year. On the other hand, I noticed that municipal authorities (especially those in rural or semi-urban areas) lack sufficient knowledge about the precise distributional criteria of federal funds. Despite the advantages of having a stable system of intergovernmental transfers, several municipalities coincide in pointing out some problems coming from the regulations established by the Estado de México government. One is that the state government frequently fails to deliver funds on time. Although state officials claim that those delays are due to discrepancies between the federal and the state fiscal calendars, some municipalities strongly believe that they are the result of political tensions between state and local authorities. I have reservations accepting this view, since the delays in the delivery of funds was present in all the cases analyzed, regardless of the party affiliation of the municipal president. Municipalities also consider that the state government puts too many restrictions on the use of federal funds, particularly in the case of the FORTAMUN, where there have been attempts to limit the capacity of municipalities to cover their financial obligations through that fund. In my view, it is

misleading to conclude that the fiscal regulations of the state have exclusively a political motivation, particularly if we take into account that the state government has introduced different strategies to strengthen the fiscal and managerial capacity of all municipal governments within the state, and that, in the absence of budgetary labels, local governments would spend most of their resources to cover administrative expenses (recall my findings in the chapter addressing local budgetary allocations, in which I demonstrate that for every additional peso that municipal governments receive in the form of unrestricted transfers, they spend most of it to finance current expenditures, rather than public works).

It seems that the discretionary power of the Estado de México government is more likely to take place in the case of its own investment funds for municipal development, since all my informants coincided in pointing out that those funds are subject to the political manipulation of state authorities. A large concern regarding state funds is that they are not subject to transparent rules for their distribution, since state agencies can freely decide where to spend them. In order to be eligible to receive those investments, municipalities have to agree to the terms established in the Fiscal Coordination Agreement, in which they commit to increase their effort to collect property taxes, water fees, and other revenues. Although the Agreement seems to be a valuable instrument to strengthen the fiscal capacity of municipal governments, one of its principal drawbacks is that it never makes explicit the rules for allocating state investments to municipalities, nor the precise amount of the aid. This lack of clarity has discouraged larger municipalities in the Estado de México governed by the PAN (including Toluca) to sign up the agreement: not only their level of financial dependency with respect to state resources is relatively low (at least compared to small municipalities), but also local politicians would not be able to claim credit for the projects financed through state funds,

since these mostly correspond to the policy priorities of state agencies. This outcome is consistent with my earlier claim that the ambition of opposition mayors to claim credit for their actions (which at the same time implies that they seek that local voters clearly differentiate them from other political levels) makes them more inclined to be more active in the policy sphere, for example by investing on areas with more political visibility (such as public works projects), or by increasing their levels of financial autonomy, as it was shown in Chapter 4. The fact that PANista governments in the Estado de México have been reluctant to accept the terms established by state authorities in the Agreement is consistent with that argument.

In my view, one of the most serious problems of the federal resource allocation system is the difficulty to evaluate to what extent are municipalities making their spending choices consistent with the objective of alleviating poverty. In other words, despite the fact that distribution of funds to municipalities has improved its transparency due to the existence of a federal formula, there are not public mechanisms to verify that local authorities are actually spending the resources according to the stated goals of the decentralization policy. Only in the case of Zapopan, Jalisco, the municipal government established a system where budgetary limits are set in advance, according to the relative deprivation levels of localities. Furthermore, information on how federal resources are spent across projects and regions in Zapopan is made known to the public through their website. But none of the municipalities I examined in the Estado de México had such a budgetary system, nor all of them make spending information available to the public. This lack of transparency has to do, at least in part, with the way the decentralization policy was designed originally, since the federal government basically gave up its oversight authority and transferred it to subnational institutions, under the expectation that the local policymaking process would assure the transparency of decentralized

resources and the accountability of local officials. However, I did not find evidence supporting that expectation. To begin with, none of the municipalities of the Estado de México were willing to share with me data on their budgetary allocations, although they are required by law to disseminate such information to the public. Neither the accounting office of the state legislature nor the finance department of the state government disclose that information. Thus, it is almost impossible to evaluate how municipalities are making use of federal resources, unless one has an informal access to that information.

The accountability and transparency problems outlined above can also be explained by the limited capacity of the town councils to moderate the political power of the president. The representation rules established by the state electoral legislation give a disproportionate share of seats to the party of the president, thus weakening the political power of opposition representatives at the *cabildo*. Opposition *regidores* are often excluded from important policy issues, and do not even have a regular contact with community representatives and delegates. Nevertheless, opposition representatives are commonly accused by other municipal authorities of blocking all presidential initiatives (although these are ultimately approved by the president's party at the *cabildo*), manipulating the people of the communities, and creating rumors against the president. Probably, the use of these informal methods actually reveal the opposition *regidores'* lack of formal political power.

The lack of transparency in the local spending process and the weak capacity of the local *cabildo* to check the influence of presidents evidently create the conditions for a discretionary use of federal resources by municipal presidents, as it has been pointed out by most state officials and some local council representatives from opposition parties. If local budgetary allocations are essentially made through the use of political considerations, then we can expect that the original policy goals of the federal funds will

get distorted once they reach the municipal level, even though the existing formula has improved the distribution of funds from the federal government to the states, and from the states to the municipalities. The final section of this chapter provides an empirical test to the proposition that the allocation of federal funds by municipal authorities is driven by political motives. It also analyzes whether municipalities are allocating resources according to the compensatory goals of the decentralization policy.

## **5.6. THE LOGIC OF MUNICIPAL SPENDING IN FIVE MUNICIPALITIES OF THE ESTADO DE MÉXICO: AN EMPIRICAL ASSESSMENT**

This section presents an empirical model to analyze how municipal authorities make their budgetary choices regarding the resources they obtain from the federal government for developing social infrastructure projects. It tests the widespread idea that municipal authorities in the Estado de México use political considerations in their resource allocations of federal funds. It also evaluates to what extent are municipalities prioritizing resources to assist the most deprived areas of their territory, thus complying with the goals of the national decentralization policy.

For the purposes of this analysis, I will assume that a political use of resources implies that municipal presidents will tend to spend more funds to reward their party supporters, without necessarily taking into account their constituents' actual need for public goods and services. Note that I disregard the possibility that within the same party there could be different groups competing for public resources, and that the incumbent president might favor only some of them. Thus, for the sake of simplicity (and also due to the lack of more detailed data on the political preferences of presidents), I will assume

that the only political consideration of the incumbent president would be attempting to support his/her own party loyalists.

Since my aim is to investigate how municipal authorities distribute federal resources across their territory, the observation units for this analysis will be the localities, which constitute the smallest territorial entity for which data are available. The analysis is based on a small dataset covering five municipalities of the Estado de México: Jilotepec, Soyaniquilpan, Villa del Carbon, Atlacomulco and El Oro, given that I was only able to obtain data for these cases. The sample size of my dataset is equal to 154 localities.

The analysis focuses only on federal funds earmarked for basic infrastructure (the FISM), thus I pay no attention to the fund for municipal strengthening and development (the FORTAMUN). The reason for looking only at the FISM is that municipalities must always report the physical location in which public works are carried out, thus allowing to identify how spending is geographically distributed. On the other hand, it is practically impossible to identify the geographic distribution of FORTAMUN resources, since these are mostly spent on the financial obligations of municipalities and on other administrative activities, which are not attached specifically to any locality.

It should be noted that data on municipal localities of Mexico is very hard to obtain. Nevertheless, I was able to get data from the 2000 population census for the five municipalities of the Estado de México included in this study, disaggregated at the level of locality.<sup>114</sup> The electoral information was harder to match up with the rest of my dataset, since the smallest unit of information reported by the electoral institution of the Estado de México is the “electoral section”.<sup>115</sup> In some cases, there is a perfect match

---

<sup>114</sup> Sociodemographic data disaggregated at the level of localities were obtained through INEGI, *Censo de Población y Vivienda 2000, Principales resultados por localidad*.

<sup>115</sup> Electoral data at the sectional level were provided by the *Instituto Electoral del Estado de México*.

between sections and localities (i.e. one locality per section), thus combining the electoral data with sociodemographic and financial information does not present any significant problem. But in others, either one section comprises more than one locality (typically localities with few residents), or a single locality might span more than one electoral section (normally the *cabecera municipal* or county seat, where most of the population is concentrated). In the first case, I made all electoral variables to take identical values across the localities belonging to the same electoral section. In the second, for each locality I calculated a weighted average of the respective electoral variable across the sections, based on the distribution of the population of potential voters.

The dependent variable in the analysis is the proportion of FISM funds assigned to each locality by the municipal government in 2004 (i.e. the first year in office of the 2003-2006 municipal administration). That is, the total amount of FISM resources spent per locality, divided by the total amount of FISM funds that each municipality received for the fiscal year 2004. This measurement strategy attempts to reflect the relative importance that municipal authorities give to each locality in terms of their budgetary priorities, at least in the first year of their mandate. Thus, the dependent variable can take any value between zero and one. Data for this variable was obtained through the planning and finance department of the Estado de México government.<sup>116</sup>

The explanatory variables in the model include indicators about the level of need for public goods and services. The model also incorporates political influences. The most evident measure of public goods need is the population size of the locality, which is expected to have a positive relationship with the proportion of federal resources spent. The proportion of people earning less than one minimum wage, which measures the relative level of poverty in the locality, is also incorporated in the estimation. Given that

---

<sup>116</sup> I am grateful to Lic. Alejandro Hinojosa, Undersecretary of Expenditure at the Planning and Finance Ministry of the Estado de México government, for providing me with FISM data.

FISM funds are aimed to play a compensatory role (at least in the official discourse), I would expect it to have a positive relationship with the dependent variable, implying that municipal authorities tend to support areas where poverty levels are more concentrated. Another two indicators measuring the level of basic infrastructure need are included. These are the proportion of households in the locality without access to water, and the proportion of households without access to drainage. Once more, we should observe a higher share of FISM funds allocated to localities exhibiting lower rates of water and drainage coverage. Given that previous analyses consistently revealed the importance of literacy for municipal performance, literacy rates at the locality level are also included in the model, under the expectation that better educated residents might attract more resources to their communities. I include a dummy variable to identify the *cabecera municipal* (county seat), which normally constitutes the most urbanized area of the municipality, thus requiring more public works investments. A set of four dummy variables are included to account for any municipal-level effect (the municipality of El Oro is taken as the baseline).

The political variable in the model is the proportion of votes in favor of the president's party. This implies that the variable will take the value of the relative vote for the PRI in localities belonging to municipalities where the PRI won the presidency in the 2003 election, and the relative vote for the PAN in those where this party governs the municipality. If the coefficient of this variable is positive and statistically significant, that would confirm the claim that municipal presidents make a political use of the FISM, tending to favor localities where their parties received more electoral support. The estimation is performed using ordinary least squares, but all data are weighted by the electoral importance of each locality (the weighing variable is the number of potential voters, that is the number of people of ages 18 and older). In order to allow for



heteroscedasticity in the error term, I report robust standard errors.<sup>117</sup> Results are reported in Table 5.3.

TABLE 5.3. Weighted Least Squares Regression on the Proportion of FISM Funds Allocated by Five Municipal Governments Across their Localities in 2004

	Specification I	Specification II
Intercept	-0.108 (0.055)	-0.017 (0.023)
Population (10,000)	0.104*** (0.028)	0.106*** (0.029)
County seat ( <i>cabecera municipal</i> )	0.022 (0.048)	0.009 (0.049)
Poverty	-0.658** (0.223)	-0.641** (0.235)
Percentage of households with no access to water	0.045 (0.024)	
Percentage of households with no access to drainage	-0.021 (0.018)	
Literacy	0.45 (0.232)	
Proportion of votes for the president's party in the 2003 election	0.092*** (0.029)	0.118*** (0.037)
Jilotepec (dummy)	-0.023 (0.023)	-0.038 (0.021)
Atacomulco (dummy)	0.009 (0.019)	-0.006 (0.018)
Soyaniquilpan (dummy)	0.165** (0.055)	0.143** (0.054)
Villa del Carbon (dummy)	0.053** (0.02)	0.041* (0.019)
N	154	154
R-Squared	0.813	0.799
Note: Huber-White standard errors in parentheses. The municipality of El Oro is taken as the baseline. Locality-level observations are weighted according to the number of eligible voters (people ages 18 and older) ***p<.001 **p<.01 *p<.05		

<sup>117</sup> It could be argued that a problem of reciprocal causality or endogeneity might be present in my model, since relative spending levels (the dependent variable) may possibly affect the votes obtained by the president's party. However, this problem is ruled out by the fact that the electoral variable is measured with data from the election before the new government took office, while local spending data belong to the first year of the municipal mandate, thus excluding the possibility that public spending could have affected electoral results.

Before discussing the results, we should be aware that the dataset is not representative of all municipalities in the Estado de México. Although the use of localities as units of observation considerably increases the size of the sample, the dataset is still restricted to five municipalities in the state. I have excluded large urban cities, which concentrate most of the state population. The reason for leaving them out is that FISM resources only account for a small fraction of their total available resources. Furthermore, I have found that large cities tend to spend most of FISM resources on policy sectors that cannot be attached to specific geographic areas (for example, scholarships for children), thus preventing me to adopt a methodological approach based on territorial distributions. Therefore, we should regard this analysis only as an initial exercise that can be replicated with more detailed and extensive data. Nevertheless, it can provide us with some interesting insights.

Regarding the variables measuring the level of need for public goods and services, the population size of localities is clearly an important one: for every additional 10 thousand people residing in a given locality, municipal governments tend to allocate, on average, more than 10 percent of their available FISM budget. It is evident that population is the most relevant variable in the model, since it explains 35 percent of the total variation. On the other hand, the county seat control does not appear to have any independent effect on budget allocations. Evidently, its high correlation (0.76) with the population variable (county seats are typically the most populated areas) explains why it fails to have statistical significance. Nevertheless, including it improves the model's adjustment, thus suggesting that county seats might receive an extra benefit in terms of budgetary allocations, regardless of their population size. A sample with more observation might confirm this proposition.

The next question is whether municipal authorities tend to give more budgetary priority to localities where poverty levels are more concentrated. The negative coefficient associated to the minimum wage variable clearly suggest the opposite: for every ten percent increase in the share of the working force earning less than one minimum wage in a given locality, the proportion of FISM funds assigned to that locality decreases by 6.6 percent on average. Therefore, the empirical evidence indicates that municipal authorities penalize localities with higher poverty levels, thus distorting the compensatory goals of the decentralization policy. There might be several reasons explaining this outcome. For example, poorer localities might have less capacity to advocate their needs and influence the local policy agenda. Also, they might tend to be isolated from the most populated areas, thus making it more costly for the municipal government to make further public works investments. Evidently, it might well also be the case that poverty levels do not precisely reflect the actual needs of infrastructure within localities. For example, a locality with high poverty levels might be more in need for private goods (food, housing, transportation) that cannot be provided through the use of federal funds. Nevertheless, it does not seem to be the case that public spending is responsive to other indicators of infrastructure need. For example, localities exhibiting a higher proportion of households without access to drainage are not compensated with more FISM funds. Similarly, localities with a high proportion of households not having access to water are only marginally rewarded (the effect of this variable is only 0.045). In any case, these outcomes reveal that local authorities are probably not doing what they are supposed to do with the funds for basic infrastructure.

Literacy rates turn out to be important factors explaining increases in municipal spending, although its level of statistical significance marginally fails to meet the customary 0.05 threshold, probably due to their correlation with other socioeconomic

variables. Its large coefficient widely confirms what I have been arguing throughout this dissertation: that a better educated population is an essential ingredient to foster the accountability of governmental officials.

Are FISM resources subject to any party influence? The results suggest that they are, although not to a very large extent. For example, a locality where the president's party had obtained the totality of the votes would be assigned nine percent more of the FISM budget, in comparison to another locality where nobody had voted for that party. The effect increases to 12 percent if we exclude from the estimation the indicators measuring the lack of access to water and drainage services, as well as literacy rates.

In summary, the available statistical evidence strongly supports the claim that municipal governments are not giving budgetary priority to localities that require public investments the most, thus distorting the stated goals of the decentralization policy of basic infrastructure. Also, the evidence suggests that public spending decisions are not politically neutral, although it would be excessive to assert that electoral considerations constitute the principal criteria driving the formulation of municipal spending choices. The results are, nevertheless, not very surprising, given the several problems I pointed out regarding the lack of effective mechanisms for policy monitoring and oversight in the Estado de México.

## **Chapter 6**

### **Democratization and Local Government Strengthening: The Ongoing Challenges and Imperatives for Public Policy**

The research objective of this dissertation has been to investigate the factors that cause variations in local government performance. Drawing on basic premises developed by the literature on fiscal federalism and decentralization, as well as on electoral theories of governmental accountability, my study has focused on the ability of competitive elections to motivate local policymakers to improve the quality of governmental outputs and processes, under the assumption that the threat of being removed from office would compel local governments to be more accountable to their electorate. In the Mexican case, where the consecutive reelection of local mayors is constitutionally forbidden, I acknowledged that the link between competition and performance would be a less direct one, since local officials are more likely to respond to the political imperatives of top party leaders, rather than to the policy preferences of their electorate. Nevertheless, I hypothesized that the connection between electoral competition and government performance might have its roots in the motivation of municipal presidents to assure the victory of their party in the subsequent election, given that this is an important condition for their political survival. In other words, that there could be reasons to believe that the interests of parties, governments, and voters could be aligned, even in the absence of reelection.

My dissertation addressed the issue of government performance from a variety of perspectives, looking at the provision of basic services local governments are responsible

to supply, the willingness and ability of municipal officials to build up the institutional capacity of local bureaucratic apparatuses, the formulation of local spending choices, and the enforcement of taxing authority. Each chapter, looking separately at each performance dimension, constitutes a building block in the development of the general argument. The empirical evidence generated in this research has revealed that the more contested and participatory electoral environment that characterizes Mexican municipalities has in fact transformed the strategies of local politicians to allocate public resources, and it has also increased the autonomy of local governments with respect to higher governmental levels. However, these undeniable changes have not necessarily been translated into better social outcomes, given persistent problems of governmental accountability, shortcomings in the design of decentralization instruments, and the recurrent opportunistic behavior of local political actors. On the other hand, my research found that local governments in Mexico are considerably more responsive to demand-driven factors, essentially those reflecting broader processes of socioeconomic modernization across the country, such as improvements in the educational levels of citizens, reduced poverty indicators, and higher levels of voter participation in local elections. Overall, my results cast serious doubts on the ability of electoral democracy to produce by itself better developmental consequences.

In this concluding chapter I present an overview of the principal findings of the dissertation, drawing attention to their main theoretical and policy implications, identifying the principal puzzles that remain unanswered, and suggesting alternatives for future research. The findings are also discussed in light of the current debate on the possible paths that Mexico can take in order to reform its fiscal intergovernmental system.

## **6.1. SUMMARY OF FINDINGS**

### **6.1.1. Electoral democratization and local development: an unfinished business?**

An important dimension of the performance of local government that this dissertation utilized concerned the outcomes municipal governments are expected to produce on the well-being levels of their electoral constituencies. Taking into consideration the availability and reliability of municipal-level data in Mexico, the rates of coverage for water, drainage, and electrification served as performance indicators under this dimension, given that they constitute part of the legal responsibilities of municipal governments in the country. Furthermore, the provision of basic services is what the average citizen can expect from his/her authorities as a minimum. One of the main goals of this project was to find out whether differentials in electoral competition at the municipal level account for the variations in the rates of coverage for those three services. More specifically, I tested the hypothesis that increases in the competitiveness of municipal elections improve the access of citizens to water, drainage, and electrification. In order to corroborate that proposition, Chapter 3 provided an empirical framework based on a cross-sectional dataset in which municipality-level observations on service coverage were combined with information on local elections and other control variables measuring the financial and sociodemographic characteristics of Mexican municipalities throughout the 1990-2000 period. Overall, the results revealed that neither electoral competition nor party alternation have improved the rates of coverage for any of the three services analyzed. This outcome was robust across different model specifications and after using alternative measurements of electoral competition.

In addition, the research investigated other rival hypotheses that have been proposed to explain variations in government performance, namely the ability of citizens to make local authorities more responsive to local demands using more direct means of influence, such as political mobilization. Using basic literacy and voter turnout rates as proxies for citizen awareness and involvement in public affairs, the analysis revealed that these factors positively affect the provision of water, drainage, and electrification. These results suggest that government performance is more responsive to demand-driven mechanisms than to the deliberate attempts of local authorities to guard themselves against the possibility of being removed from office in subsequent elections. In other words, that governmental authorities are more likely to react when citizens use participatory means of pressure than when they merely employ their vote.

In summary, the results suggest that the electoral component of democracy has been unable to improve the levels of development in Mexican municipalities. However, we should take into account that the analysis of public services faced a number of limitations. Maybe one of its principal shortfalls was the inability to track down changes in performance occurring at time intervals shorter than ten years, given that data on public service coverage was only available for 1990 and 2000, but not for the years in-between. In consequence, the results obtained in the analysis of municipal services should be regarded as a long-term picture of performance that emphasizes the accumulated effect of competitive elections on performance throughout an entire decade. Another plausible limitation might involve the possibility that some municipal governments could be simply unable to comply with the constitutional responsibility of providing basic services to their constituencies, especially those in rural areas that lack sufficient technical and financial capacity. With the aim of filling these potential gaps, this dissertation not only looked at the policy outcomes, but also at the policy processes



through which municipal governments develop their internal organizational capacities, their budgetary allocations, and their ability to collect tax revenues from their own sources. The following sections discuss these issues in more detail.

#### **6.1.2. Building up governmental capacity: merit-based administrative modernization or political patronage?**

Besides having looked at the policy outcomes of municipal governments, this dissertation focused on the processes through which local governments develop their managerial capacities which are important conditions for improving the quality in the implementation of local public policies. The procedural dimension of performance was operationalized with the use of three institutional capacity indicators constructed on the basis of survey data at the municipal level. They measure the capacity of local governments to standardize their operations through the creation of impersonal rules, the levels of formal education of high-level officials, and the degree of professionalization of their bureaucratic recruitment systems. The analysis of institutional capacity was framed, once more, under the theoretical premise that electoral competition induces local governments to improve their performance. In addition, the investigation incorporated governmental juxtaposition as another potential explanatory factor, given the assumption that municipal authorities that arrive into power under the banners of a party other than the state governor's have incentives to modernize the local administration in order to foster their policymaking autonomy. The results revealed a favorable, even if modest, influence of competition and governmental juxtaposition on the institutional performance of municipal governments, although we could never rule out the possibility that such

positive results could have been influenced by potential selection biases in survey responses.

Even though the results tended to support the argument that competition improves local performance, the influence of participatory mechanisms appeared, yet again, as having a stronger effect on administrative modernization. Higher rates of literacy and lower poverty levels were found to significantly improve all the indicators of institutional capacity, thereby confirming the early claim that a more educated and better organized citizenry are essential conditions for performance. This results reinforced the argument that the responsiveness of local authorities does not only depend on the capacity of voters to threaten the political survival of incumbent leaders, but also on their ability to articulate their demands through participatory mechanisms.

In contrast, increasing rates of voter participation appeared as being highly detrimental for the development of local institutional capacity, an outcome that seems contradictory at first glance, but that might reveal an important pattern of participatory politics in Mexico; namely, the capacity of political mobilization to frustrate reforms aimed at reducing patronage styles in policymaking. The negative relationship between voter turnout rates and all indicators of institutional capacity might be a strong indication that a highly mobilized electorate (presumably led by parties) precludes local politicians to give up their ability to use public resources for political patronage. In other words, that incumbent politicians are relatively unwilling to adhere to a set of impersonal rules based on merit and technical rationality, since that would force them to give up their discretionary use of resources. Evidently, a skeptical reader might have reservations to agree with this interpretation, particularly if the outcome could have been influenced by the subjective nature of the survey data, by the way the dependent variables were measured, or by other likely biases. However, the same result was obtained from the

analysis of local taxation, in which the nature and sources of the data are of higher quality and reliability, thereby strengthening the statistical modeling. The analysis revealed that increases in higher turnout rates decrease the amount of revenues municipal governments collect from local sources, even after controlling for socioeconomic levels, for the concurrence of municipal, state, and national elections, and for many other potential influences. The result provides another piece of evidence supporting the argument that party mobilization precludes local governments to strictly enforce their taxing authority, making them strongly dependent on the policy choices of higher political levels and, probably, deteriorating the quality of local policies.

#### **6.1.3. Increased policymaking autonomy: when competitive elections make a difference**

The analysis of municipal budgets in Mexico provided an opportunity to investigate how local spending decisions are affected by the political pressures created by a more contested electoral environment. Drawing on the premise that incumbent policymakers attempt to maximize their political survival by targeting public resources according to their bases of support, I tested the hypothesis that increases in electoral competition, party alternation, and voter participation encourage municipal governments to invest their available resources on public works projects. The rationale behind this proposition is that, under a context of voter apathy and party hegemony, municipal authorities are more likely to expand their political support by selectively targeting resources to their political loyalists, for example by rewarding them with jobs in the local bureaucracy (i.e., they would be inclined to adopt a strategy of patronage). In contrast, a very competitive and participatory electoral setting might compel politicians to broaden

the target of their spending choices, thus investing on areas that spill over a wider range of constituents.

In order to test the previous hypothesis, the study exploited a panel of data in which a number of municipal-level variables (electoral, financial, and sociodemographic) were observed throughout the years over the 1990-2001 period, allowing to analyze variations in budget allocations both within and between municipalities. The data allowed also investigating whether the electoral calendar of Mexican municipalities is also a factor explaining the allocation of local budgets; specifically, whether municipal governments, in their attempt to maximize the probability of their parties to remain in office in the upcoming election, invest more resources in public works in years when local elections are held. In addition, the analysis investigated whether vertically divided, or juxtaposed, municipal governments are more inclined to favor public works as a means to reaffirm their political autonomy.

The analysis revealed that the hypothesized effects of competition and alternation on public works investments did not materialize until 1998, when municipal governments acquired the responsibility to allocate a new federal fund for social infrastructure projects, which represented a substantial increase in their budgets. In other words, the evidence suggested that the interaction between decentralization and electoral democracy has encouraged local authorities to invest in areas yielding collective benefits, rather than just expanding the bureaucracy. This finding implies that electoral democracy *per se* is not a sufficient condition for performance, as local governments require as well having more decision-making autonomy over social investment funds, so that they can better take advantage of the opportunities that a more competitive electoral environment presents.

Spending in public works was found to increase in years when municipal elections are held, thereby confirming the assumption that electoral years provide local authorities with the best opportunity to make their actions more visible to the population. In addition, a situation of vertically divided government, in which the party affiliations of local mayors and state governors differ, appears to encourage municipal authorities to use public works investments as a means to differentiate themselves from the state government, an outcome that is in line with recent developments in fiscal federalism research.

Personal interviews with municipal-level actors in the Estado de México provided additional evidence on the proposition that juxtaposed local governments tend to push for additional autonomy from state authorities. The rejection of some municipalities under the control of the PAN to accept the terms of a new fiscal agreement designed by state authorities constitutes, in my view, an indication in support of such hypothesis. Under the Estado de México's Fiscal Coordination Agreement (aimed at rewarding improvements in municipal taxing effort with additional state investments), municipalities would not be able to claim credit for the projects financed through state funds, since these would correspond to the policy priorities of state agencies, rather than to the preferences of local governments. The impossibility to derive a direct political benefit from the fiscal agreement, plus the perception that the policy lacked sufficient clarity in its operation rules, discouraged PANista municipalities to sign up the agreement. However, the tendency of local governments to challenge the policies designed by upper levels seems to hold only for the case of the most populous and wealthiest municipalities. Smaller and poorer PANista municipalities do not have the same opportunity to confront the state government because they lack enough resources to

undertake investment projects by themselves. In consequence, they generally have no other choice than agreeing to the contractual terms established by state policymakers.

In summary, the empirical evidence implies that the changing nature of electoral politics at the local levels of government has encouraged local politicians to expand their policymaking autonomy, which corroborates the hypothesis that electoral competition, party alternation, and governmental juxtaposition are inducing local leaders to be more aware about the policy preferences of their constituencies than to the political imperatives of higher levels of government.

#### **6.1.4. Decentralization without accountability?**

A major concern among fiscal decentralization scholars is the inclination of local and subnational authorities to shift the costs of their spending choices to national taxpayers, an outcome that typically emerges as a consequence of the imperfect ability of central governments to monitor the actions of lower political levels. With the aim of investigating the relevance of this problem in the Mexican case, this dissertation analyzed whether the taxing performance of municipal governments in Mexico has declined as a consequence of the decentralization of federal funds. I tested the widespread perception that the decentralization of federal funds to local governments in Mexico has displaced the collection of locally-generated revenues, given that incumbent authorities refuse to bear the political costs entailed by local taxation and prefer to rely on transfers from upper levels. The results tend to confirm that proposition, given that local taxation decreased once the federal government started to decentralize social infrastructure funds to municipalities, although the reduction in revenues has not been as severe as it has been claimed. In addition, municipalities receiving more federal funds were found to collect

fewer taxes from their own sources, even after controlling for socioeconomic well-being levels. Another finding was that the adverse consequences of fund decentralization over local taxation are aggravated when incumbent authorities face higher levels of electoral competition, thereby supporting the assertion local taxation entails a political cost (or at least that local politicians perceive that such a cost in fact exists). Finally, high rates of voter turnout were found to decrease the levels of revenue collection, in support of the hypothesis that political mobilization is unfavorable to the strict enforcement of taxation.

In summary, there are reasons to believe that the current decentralization strategy toward municipalities in Mexico has problems in its structure of incentives, which seem not to reward improvements in local tax performance. Problems are not confined to the revenue side, but also to the way municipal governments formulate their spending decisions. For example, state government actors of the executive branch in the Estado de México consider that municipalities distort the objectives of the decentralization of social funds. They called attention to the propensity of mayors to centralize the agenda-setting process, the low technical expertise of the municipal staff, and the high level of politization that characterizes the allocation of resources. The fieldwork carried out in four municipalities of the Estado de México corroborated those perceptions to some extent, but it was also clear that some of the problems pointed out by state officials have their roots in the relationship between state and municipal authorities. Frequent delays in the disbursement of funds from the state government to the municipalities, lack of transparency in the criteria through which funds originated from state programs are distributed, and the proclivity of the state government to inspect the public finances of municipalities in a discretionary way were the kind of problems that municipal actors, particularly those whose party differs from the state governor's, pointed out during the interviews. Therefore, despite the fact that the allocation of federal funds to

municipalities seems to be less vulnerable to be manipulated politically by state actors, these still have other instruments to penalize municipal governments controlled by “opposition” parties.

In order to confirm empirically whether the social objectives of the decentralization of funds for infrastructure get distorted as soon as they reach the municipal level, a final statistical analysis was performed, based on a dataset with locality-level observations from a small number of municipalities in the Estado de México. Specifically, I analyzed to what extent the spending decisions of municipal governments tend to benefit poorer localities, in accordance with the compensatory goals of the decentralization policy, and whether local mayors tend to invest more funds in localities where their parties enjoy a larger electoral support, which would confirm the idea that the allocation of resources is politically biased. The results revealed that poorer localities receive significantly less infrastructure investments, and that the spending choices of local governments are influenced by political considerations.

Overall, the evidence suggests that the low levels of policy accountability and institutionalization characterizing municipal governance in the state, the lack of effective intergovernmental oversight systems, and the absence of operational checks and balances at the local level, are important obstacles to make decentralization a more effective instrument for an improved municipal performance. This implies that the current decentralization strategy in Mexico requires important changes for its success, placing special emphasis on the design of adequate structure of incentives to make the local levels more likely to comply with relevant policy goals, such as improving the access of people, particularly the poorest, to basic services, improving the collection of own-source revenues, increasing the levels of professionalization of local bureaucracies, and



involving communities, in a more genuine fashion, in the formulation, execution, and evaluation of projects.

## **6.2. THEORETICAL AND POLICY IMPLICATIONS**

### **6.2.1. Implications for theory**

One of the contributions this dissertation has attempted to make to the literature on local governance and decentralization is to disaggregate the large-scale concept of government performance into more specific and operational components. Given data restrictions at the level of municipalities in Mexico, I developed performance indicators emphasizing at least two important dimensions of the concept. One has to do with the things governments do to generate tangible policy outcomes in the society, such as providing basic services to their constituents and increasing public expenditures. This “activist” dimension of performance has been found to be highly responsive to demand-driven mechanisms, rather than to supply-motivated forces. The second dimension of the concept is the procedural (or institutional) component of government performance, which has to do more with how governments improve their internal capability to manage their day-to-day operations, and their willingness and ability to enforce taxation. I have intended not to make strong normative assumptions regarding the importance of each of these two performance dimensions, since I believe that both are relevant in a democratic system. Nevertheless, I have suggested that building-up the institutional component of performance probably entails bigger complexities. Although developing the institutional capacity of a government provides a very valuable collective good with high social

returns for the society (for example, better-trained public servants, more meritocratic recruitments systems, higher financial autonomy, etc.), it also implies important sacrifices from the point of view of incumbent politicians, who would have to give up their ability to make a discretionary use of public resources that could be otherwise used to strengthen clientelistic relationships with certain groups (frequently with those that provide them with political support). For instance, developing institutional capacity entails establishing impartial rules to assure a bureaucratic recruitment based on merit, rather than on political patronage. Also, it means increasing the fiscal autonomy of governments, which in turn implies enforcing their taxing authority, no matter what political costs incumbent authorities might bear as a result of that. The problem of institutional reform has been one of the main concerns of contemporary social science research, particularly in the case of developing countries, since improving the level of professionalization of civil service systems faces considerable obstacles entrenched in the self-interest maximizing behavior of individual politicians, for whom reforming the state apparatus is in itself a collective-action dilemma.<sup>118</sup> Under a context of high party mobilization and activism, the institutionalization of Mexican municipal governments has been shown to be problematic: high voter turnout rates were found to negatively affect virtually every indicator of institutional performance, such as the regulatory capacity of local governments, the formal training of public officials, the professionalization of civil service hiring procedures and, most importantly, the levels of local taxation. Municipalities where political parties have a significant capacity to mobilize the electorate, the decision-making of incumbent policymakers might be highly influenced

---

<sup>118</sup> For example, the excellent work by Geddes (1996) frames the problem of administrative reform in Brazil as a collective action dilemma from the point of view of legislators who refuse to give up their access to patronage resources. Also, research on political clientelism highlights the fact that politicians have a tendency to use private transfers as a means to reward political supporters, even though a competitive electoral system also induces them to invest in universalistic public goods. For the Mexican case, see the article by Magaloni, Díaz-Cayeros, and Estévez (2002).

by partisan considerations. Since party activists are continuously exerting pressure on governmental authorities to target particularistic benefits to specific clienteles, governments are generally reluctant to base their policy choices on more technical and impersonal criteria. In other words, local politicians are overtly unwilling to give up their discretionary powers that help them to construct a clientelistic relationship with local political supporters. On the other hand, expanding the scope of government action does not necessarily entail the same kind of trade-offs, especially taking into account that local governments can have access to intergovernmental funds without incurring into big political burdens.

It is important to note that the findings involving the role of the turnout rate on local government performance are by no means conclusive, given that the interpretation of voter turnout is not straightforward. At one end of the spectrum, high levels of voter turnout could be regarded as a sign of civic engagement in public affairs, an interpretation that, consistent with social capital perspectives, should be expected to promote the performance of public institutions. At the other end, high turnout rates could just be an indication of the increasing capacity of political parties to mobilize the electorate, which implies that variations in government performance have a political, rather than a civic, explanation. Unfortunately, disentangling how much of these two dimensions is reflected in the voter turnout rate requires further exploration, as well as more refined data on the many other forms of influence that citizens have on their local authorities. In other words, further research is required to collect information on alternative ways by which people take part in the definition of policy priorities and the implementation of public decisions, for example their participation in NGOs, informal contacts with local officials, petitioning, street protests, and rates of newspaper reading.

Another contribution of this dissertation to public policy inquiry has been to highlight the fact that the performance of local governments (in both its “activist” and “institutional” dimensions) seems to be more responsive to demand-driven factors than to the deliberate attempts of incumbent policymakers to deal with the challenges imposed by a very contested electoral environment, which casts doubts on the ability of the electoral process to create by itself the right incentives for better developmental results. This is not to say that electoral competition and party alternation do not matter at all; certainly, as many of the findings revealed, electoral conditions are significantly transforming the approaches of local decision-making, pushing local politicians to acquire further autonomy from upper governmental levels, increasing the levels of spending on public works, and, to some extent, improving the institutional capacity of local bureaucratic apparatuses. However, these important changes have not yet implied improvements in policy outcomes, as the analysis of basic services reveals. What’s more, the effects of these “supply-driven” factors on performance are considerably lower in magnitude, compared to the influence of socioeconomic modernization forces, such as higher literacy rates and lower poverty levels.

The several empirical findings obtained in this dissertation suggest, on the whole, that electoral democracy has been an insufficient condition to motivate *per se* better developmental outcomes from municipal governments in the country. This general conclusion implies that the relationship between electoral competition and government performance is probably mediated by a number of institutional factors, some of which were highlighted in this dissertation, but others that are extremely difficult to identify given the lack of variation across Mexican municipalities on many of those factors, such as the reelection prohibition and the duration of the term of office. One institutional factor whose mediating effect was distinguished is the decentralization of social

infrastructure funds, analyzed in Chapter 4. The major finding was that decentralization plays an intervening role between competition and public works investment: only under conditions of decentralization does electoral competition encourage municipal governments to allocate additional resources for public works, but not in the absence of it. The theoretical implication of this result is that the link between competition and performance depends on the degree of decision-making authority local governments have over the formulation of social infrastructure projects, which allows them to derive a tangible political reward from their spending choices.

Most of the empirical work in this dissertation has heavily relied on the availability of data at the level of municipalities in Mexico. Despite the fact that there have been significant improvements in the data over the last years, there are still considerable information shortages that prevent a more comprehensive evaluation about the quality of public policy outcomes and processes at the local sphere of government. This dissertation has taken advantage of the few measures on public service provision available, however there are many other services under municipal responsibility for which reliable data is lacking. Also, I left out an important dimension that should be explicitly accounted for in future studies: the perception of citizens regarding the performance of their public authorities. After all, it can be argued that in a democratic system the fundamental judgment of government performance is public opinion, since the ultimate aim of a democratic government is to satisfy its citizens. This is not to say that public opinion measurements of government performance do not entail complexities (for example, ordinary people might lack sufficient knowledge of the sort of things their governments do, they might not necessarily understand how policy responsibilities are distributed between different levels of government, and their perceptions might be biased by factors outside the control of policymakers). Nevertheless, public satisfaction

measures should be at least one of the components of a broader evaluation of the government performance.

The high level of aggregation in the data on local public finances has prevented me to analyze in more detail how and where local governments are spending their resources, and what consequences those choices have on the well-being levels of people. Although I have provided a small-scale analysis of municipal spending decisions at the level of localities, it is necessary to increase the number of observations in order to be more confident on the level of generalization of the results obtained. Unfortunately, as it has been pointed out, this lack of information constitutes one of the principal drawbacks of the current decentralization policy, which has failed in compelling states and municipalities to report spending data.

### **6.2.2 Policy implications**

Several findings obtained in this dissertation indicate that further institutional changes are required in order to make local democracy and decentralization functional for local performance. In my view, most of those changes have to deal with the fundamental problem of improving the levels of policy and political accountability characterizing local governance in the country. This problem is manifest in at least two distinctive dimensions. The first has to do with the lack of effective intergovernmental mechanisms inducing local governments to comply with the goals that national decentralization policies aim to accomplish. The second regards the problem of municipal accountability toward local constituents. My dissertation has provided several pieces of evidence showing weaknesses in both dimensions. On the vertical or intergovernmental component, this research has revealed that municipal governments have a low propensity

to strictly enforce local taxation, while heavily relying on transfers from the federal government, particularly when they regard that taxing local constituents might entail big political costs. Another piece of evidence implying failures in the system of intergovernmental accountability is the apparent unwillingness of local governments to prioritize resources in favor of the poorest localities, which presumably are the ones requiring more social investments. The evidence also suggested that municipal governments have a marked bias in favor of county seats, despite the fact that poverty levels tend to concentrate on the rest of the localities. As one of the chapters suggested, that outcome seems to be caused by electoral bias in the spending choices of municipal governments. But it also reflects inadequacies in the oversight and evaluation instruments of the federal and state governments, and the lack of performance-based formulas for the distribution of funds to municipalities.

On the dimension of accountability toward local citizens, probably one of the most serious limitations is the absence of consecutive reelection of local mayors, which precludes them to better match the preferences of the electorate, while making them more dependent on the political priorities of party elites. The lack of the reelection incentive, coupled with the shortness of the municipal term of office, can also be blamed for the poor degree of bureaucratic professionalization that characterizes local governments, since incumbent politicians look forward to move on to higher positions in their states or even at the national congress, thus failing to introduce more enduring changes in the local administration. Unfortunately, I was unable to directly test that proposition in this research: since all municipalities in the country are equally affected by the constitutional prohibition on reelection, it is impossible to find a counterfactual to rigorously test whether reelection can produce more accountable governments.

Besides the potential benefits that could be created by removing the constitutional ban to the consecutive reelection of mayors, other changes on the institutions of local representation might be desirable, particularly on the rules for the integration of town councils or *cabildos*. Although this dissertation did not formally analyze the role of *cabildos* to effectively hold municipal presidents accountable for their decisions, anecdotal evidence obtained from interviews with some local representatives and other informants in the Estado de México suggested that town councils are the weakest element of local policymaking. The failure of *cabildos* to actually serve as public watchdogs of local decision-making has its roots, in my view, on the methods of political representation established by the electoral and municipal legislation in some states of Mexico. The rules for the integration of the council tend to give the majority party a disproportionate share of seats, which do not reflect the real distribution of electoral power in a municipality. In addition, town councilors (*regidores* and *síndicos*) are elected on the coattails of the municipal president under a system of slates (*planillas*), where candidates are jointly nominated by party leaders. These institutional features generate very poor incentives for local councilors to carry out their responsibilities on the design and oversight of local public policies: opposition councilors are too few to be able to influence policies, majority councilors lack the incentives to oppose the municipal president, and everyone tends to follow the guidelines of party elites instead of the preferences of the electorate. Strengthening the system of proportional representation would certainly increase the presence of opposition parties at the local councils, giving them more power to restrain the decisions of the president. However, this might also cause a situation of policy deadlock, where the normal operation of the local government would be seriously hindered. Therefore, probably the most desirable change for improving the accountability and decision-making authority of the town council would be



to stop the current system of slates, allowing individual candidates to compete in their districts or localities under a simple majority principle. As in the case of reelection, this institutional reform would considerably reduce the party discipline of local representatives, while making them more responsive to their preferences of their constituents. However, further research is required to elucidate this proposition, taking advantage of the fact that several states in Mexico have started to introduce changes in their electoral and municipal institutions, promoting a more plural representation in the town councils.

A change that, in my view, deserves special consideration in the current debate on local governance in Mexico has to do with the creation of a civil service system at the level of state and municipal governments. The low degree of administrative professionalization of the municipal staff, which also seems to be aggravated by the absence of consecutive reelection and by the shortness of the municipal term of office, would probably be improved by the existence of an institutional mechanism assuring the stability and competence of public officials. At the same time, a more meritocratic method of personnel recruitment and professional development would certainly reduce the use of political patronage in the appointment decisions of local governments. It is important to mention that the current federal government in Mexico (2000-2006) has already enacted a civil service law regulating the processes of selection, incentives, and career advancement for all federal employees in the country.<sup>119</sup> However, since that legislation cannot affect public workers at local and sub-national levels of government, it is important for each state in the country to take the necessary steps to establish a civil service system preventing public appointment decisions to be affected by political considerations, while assuring the quality of governmental human resources.

---

<sup>119</sup> The *Ley del Servicio Profesional de Carrera en la Administración Pública Federal* in Mexico was enacted on April 10, 2003.

Another crucial aspect to improve the quality of local governance in Mexico concerns the adoption of a legal instrument assuring the transparency of governmental information at the local and sub-national levels. As I have pointed out, the lack of access of ordinary citizens to such information constitutes one of the principal drawbacks of the current decentralization strategy. Not only does this problem preclude a rigorous evaluation of local public policies, but it also represents a serious peril for the democratic consolidation of the country: unless voters know how public resources are utilized by governmental decision-makers, democratic accountability will be impossible to attain. As in the case of civil service reform, the current national government has recently enacted an ambitious legislation that establishes a set of transparent principles by which the public can require federal agencies to disclose governmental information.<sup>120</sup> It is essential that an equivalent type of legislation be adopted by all the states in the country in order to assure the transparency of information of state and municipal governments. Also, it would be desirable to develop new mechanisms encouraging municipal governments to invest in technologies that facilitate the access of citizens to governmental information. For example, the system of intergovernmental funding could provide special funds aimed at the modernization of municipal information systems, a feature that is currently lacking.

### **6.3. THE CURRENT POLICY DEBATE IN MEXICO**

In recent years, the whole system of fiscal federalism in Mexico has become one of the main issues debated in the country. One of the principal claims of scholars,

---

<sup>120</sup> The *Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental* was enacted on June 11, 2002.

politicians, and policy analysts is that its current mechanisms of resource generation and allocation are no longer functional for a country that has considerably opened its economy to the global market, and where regions attempt to take advantage of the opportunities that free trade provides.<sup>121</sup> At the same time, the monopoly of political power in Mexico has come to an end, particularly after the defeat of the PRI in the national elections of 2000, leading states and municipalities to push for a redefinition in the terms of the fiscal agreement originally established during the eighties. The political diversity that now characterizes all levels of government in Mexico has given rise to the emergence of new actors that demand more autonomy from the central government, thus attempting to recover the several decision-making instruments that they yielded more than twenty years ago.

In 2004 the principal political actors in the country (which included the Mexican president, all state governors, representatives of the national and state congresses, and a selected number of municipal presidents) inaugurated the First National Tax Convention as a forum to discuss new proposals to modernize the current fiscal federalism arrangement. The debate covered several topics, including public spending and revenues, national debt, the administration of the tax system; the mechanisms for inter-governmental coordination; and issues regarding transparency, public supervision, and account rendering.<sup>122</sup> It is not my objective here to cover all the points raised and proposals generated during that forum, thus I will only concentrate on the issues more directly related to municipal governments in order to appraise them in light of the findings obtained in this dissertation.

---

<sup>121</sup> An interesting assessment about the limitations of the current federal pact in Mexico can be found in Díaz-Cayeros (1995). See also the collection of essays in Arellano (1996), and the work of Ward and Rodríguez (1999b).

<sup>122</sup> For an overview of the principal diagnosis and proposals generated during the first tax convention, see its first general report (*Declaratoria a la nación y acuerdos de los trabajos de la Primera Convención Nacional Hacendaria*, Agosto de 2004).

One of the principal problems that the tax convention identified related to the decentralization of infrastructure spending to municipal governments, is that the criteria established to distribute social infrastructure funds across municipalities introduce wrong incentives for performance. In their attempt to prioritize the allocation of funds toward states and municipalities whose levels of socioeconomic deprivation are more intense, the current formulas have discouraged local governments to take the necessary steps to reduce poverty levels, since that would evidently imply a reduction in the amount of aid local governments would receive. The results obtained in this dissertation tend to corroborate that proposition, given the strong negative relationship found between social spending and poverty levels across some localities. Another problem that the tax convention pointed out is that the existence of two alternative formulas for the distribution of the FISM might generate inequality problems. For example, municipalities belonging to different states, but exhibiting comparable deprivation levels might receive different amounts of the fund, if the each state government decides to use different formulas. But the problems that the tax convention identified as being most urgent, which my dissertation strongly emphasized as well, are related to the system of policy monitoring and evaluation, which are widely deficient across the country. Only a minority of states and municipalities comply with their obligation to inform the federal government about their expenditure decisions funded through the FISM. This is caused by the lack of sanctions in the current law, which does not penalize state and local governments who fail to comply with that disposition. Accounting methods are not uniform across municipalities, which makes very difficult to know exactly how are governments applying the decentralized resources.

The policy proposals generated in the forum are to establish a unique formula for the distribution of FISM resources, in order to avoid potential inequality problems in the

allocation of funds. Also, the convention suggests to introduce in the distribution formula a mechanism to encourage efficiency in the operation of funds, for example a compensatory component to reward municipalities that had achieved reductions in poverty rates. Another suggested strategy is to allow for a gradual relaxation in the earmarking of FISM resources to municipalities attaining better results. That is, once municipalities had covered their most basic infrastructure needs, they could be entitled to spend FISM resources on other expenditure areas that might be of higher importance to them. An advantage of this proposal is, in my opinion, that it deals with the problem of providing local governments with more decision-making autonomy over decentralized resources (an essential ingredient for a better local performance, as this dissertation argued), while stimulating them to make a more effective use of funds (i.e., by allocating them to areas where poverty levels are more concentrated). On the other hand, if the earmarking of the fund were completely cut off, or if its relaxation would not depend on local governments demonstrating a more efficient use of them, it is highly probable that municipal governments would end up spending those resources on areas of low developmental impact.

Although the diagnoses and proposals of the tax convention identify some critical problems affecting the performance of Mexican municipalities, I think there are several elements that are not fully discussed. Possibly, one of the central issues that require urgent attention is the need to adopt a more differentiated decentralization strategy that takes into account the different institutional capacities across local governments in the country. The extraordinary heterogeneity of municipalities in Mexico makes it unfeasible to apply uniform solutions. I do not want to imply that the state of the federal governments should re-centralize spending decisions, but that any further devolution of resources should be tied in with a clear definition of responsibilities, in such a way that

sub-national and local governments could still be held accountable for their performance. For example, the design of earmarked resources transferred to local governments should prevent them to substitute their own taxation levels, probably by requiring them to match the federal aid with their own-source funds in a certain proportion, according to their potential revenue-generating capacity. Also, a more intensive use of performance-based indicators for the distribution of funds to municipalities is required, which in turn entails more transparency in the information regarding local spending, a feature that is simply absent in the current system.

Evidently, the feasibility of these reforms (plus many others related to the whole fiscal system in Mexico, such as the devolution of some taxes to the states, a further clarification of policy responsibilities across all levels of government, and the redefinition of the criteria of the revenue-sharing system) will strongly depend on the agreements key political players at the national level reach on how to renovate the existing federal pact in Mexico. At the present moment, arriving to such an agreement is problematic, given the political fragmentation that characterizes the national legislature, and the increasing number of veto players in the Mexican political system. All these complex issues were beyond the scope of this research, but I hope that the findings and arguments presented here will contribute to the analysis and debate on how to make local governments and decentralization more effective instruments for social development in Mexico.

## Appendix A. Municipal presidencies won by each party in Mexico, 1989-2001

TABLE A.1. Distribution of Municipal Presidencies Across Parties in Mexico, by State  
and Terms of Office (Part I)

State	Term of municipal government	PAN	PRI	PRD	PT	PVEM	OTHERS
Aguascalientes	1989-1992	0	9				
	1992-1995	0	9				
	1995-1998	4	5				
	1998-2001	5	4				
Baja California	1989-1992	2	2				
	1992-1995	3	1				
	1995-1998	2	2				
	1998-2001	2	2				
Baja California Sur	1990-1993	0	4	0			
	1993-1996	2	2	0			
	1996-1999	0	4	0			
	1999-2002	1	0	3			
Campeche	1988-1991		8	0			
	1991-1994		9	0			
	1994-1997		9	0			
	1997-2000		8	1			
Chiapas	1988-1991	0	109	0	0		0
	1991-1994	1	109	0	0		0
	1995-1998	5	85	17	2		1
	1998-2001	6	89	16	0		0
Chihuahua	1989-1992	0	66	0	0		
	1992-1995	12	54	0	0		
	1995-1998	11	54	1	1		
	1998-2001	18	47	2	0		
Coahuila	1990-1993	4	33	0			1
	1993-1996	3	34	0			1
	1996-1999	9	28	1			0
	1999-2002	3	35	0			0

TABLE A.1. (Part II)

State	Term of municipal government	PAN	PRI	PRD	PT	PVEM	OTHERS
Colima	1988-1991	0	10	0			
	1991-1994	0	10	0			
	1994-1997	1	9	0			
	1997-2000	4	5	1			
	2000-2003	4	6	0			
Durango	1989-1992	1	38	0	0		
	1992-1995	2	35	0	1		
	1995-1998	12	21	2	4		
	1998-2001	4	31	1	3		
Guanajuato	1988-1991	1	44	0		0	1
	1991-1994	13	33	0		0	0
	1994-1997	4	38	2		0	2
	1997-2000	21	18	6		1	0
	2000-2003	28	14	4			
Guerrero	1989-1993	0	55	9			5
	1993-1996	0	67	6			2
	1996-1999	1	53	18			3
	1999-2002	1	61	13			0
Hidalgo	1990-1993	1	80	1	0		2
	1993-1996	0	83	1	0		0
	1996-1999	2	74	7	1		0
	1999-2002	9	65	7	3		0
Jalisco	1988-1992	2	120	0	0	0	2
	1992-1995	15	106	1	0	0	2
	1995-1997	53	62	6	1	0	2
	1997-2000	39	71	11	2	1	0
	2000-2003	50	64	6	0	3	1
Estado de México	1990-1993	2	117	2	0	0	0
	1993-1996	6	109	3	0	0	3
	1996-2000	23	70	26	0	1	1
	2000-2003	30	66	23	1	0	1



TABLE A.1. (Part III)

State	Term of municipal government	PAN	PRI	PRD	PT	PVEM	OTHERS
Michoacán	1989-1992	2	58	52	0		1
	1992-1995	4	77	31	0		1
	1995-1998	14	44	53	1		1
	1998-2001	8	74	29	1		0
Morelos	1988-1991	0	33	0			0
	1991-1994	0	32	1			0
	1994-1997	0	32	1			0
	1997-2000	2	16	13			2
	2000-2003	8	16	7	0	1	1
Nayarit	1990-1993	0	20				
	1993-1996	0	20				
	1996-1999	1	19				
	1999-2002	6	14				
Nuevo León	1988-1991	2	48	0	0		1
	1991-1994	5	46	0	0		0
	1994-1997	6	44	0	1		0
	1997-2000	15	34	1	1		0
	2000-2003	16	34	1			
Oaxaca	1989-1992	3	95	6		0	6
	1992-1995	4	124	13		0	2
	1995-1998	10	94	29		1	2
	1998-2001	9	112	30		0	1
Puebla	1989-1992	6	193	6	0	0	9
	1992-1995	4	204	5	0	0	3
	1995-1998	22	187	7	0	1	0
	1998-2001	14	183	14	2	3	0
Querétaro	1988-1991	0	18				
	1991-1994	1	17				
	1994-1997	0	18				
	1997-2000	3	15				
	2000-2003	5	13				

TABLE A.1. (Part IV)

State	Term of municipal government	PAN	PRI	PRD	PT	PVEM	OTHERS
Quintana Roo	1990-1993		7				
	1993-1996		7				
	1996-1999		7				
	1999-2002		7				
San Luis Potosí	1988-1991	3	53	0	0		0
	1991-1994	7	49	0	0		0
	1994-1997	7	46	0	0		2
	1997-2000	15	35	4	1		1
	2000-2003	12	40	2	1		1
Sinaloa	1989-1992	1	17	0			
	1992-1995	1	17	0			
	1995-1998	5	12	1			
	1998-2001	3	14	1			
Sonora	1988-1991	0	68	0	0		1
	1991-1994	0	70	0	0		0
	1994-1997	5	63	1	1		0
	1997-2000	17	44	8	1		0
	2000-2003	14	46	8	1	0	1
Tabasco	1988-1991		16	0			1
	1991-1994		17	0			0
	1994-1997		13	4			0
	1997-2000		17	0			0
	2000-2003		12	5			
Tamaulipas	1989-1992	1	40	0			2
	1992-1995	3	40	0			0
	1995-1998	6	33	3			1
	1998-2001	0	41	2			0
Tlaxcala	1988-1991	1	39	0	0	0	4
	1991-1994	0	41	2	0	0	0
	1994-1998	3	39	2	0	0	0
	1998-2001	1	36	3	2	2	0

TABLE A.1. (Part V)

State	Term of municipal government	PAN	PRI	PRD	PT	PVEM	OTHERS
Veracruz	1988-1991	1	180	0	0	0	19
	1991-1994	2	193	4	0	0	8
	1994-1997	19	150	26	2	0	10
	1997-2000	39	101	58	6	2	1
	2000-2003	46	115	28	7	5	6
Yucatán	1990-1993	5	99	0			2
	1993-1995	3	103	0			0
	1995-1998	12	92	1			1
	1998-2001	10	92	4			0
Zacatecas	1988-1992	1	55	0	0		
	1992-1995	0	55	1	0		
	1995-1998	11	41	2	1		
	1998-2001	10	34	10	2		

Source: Elaborated on the basis of CIDAC database of municipal elections ([www.cidac.org.mx](http://www.cidac.org.mx))

## Appendix B. State governorships won by each party in Mexico, 1980-2001

TABLE B.1. Distribution of State Governorships Across Parties in Mexico, by Terms of Office (Part I)

State	Term of the governor's mandate	Party of the state governor
Aguascalientes	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PAN
Baja California	1983-1989	PRI
	1989-1995	PAN
	1995-2001	PAN
	2001-2007	PAN
Baja California Sur	1980-1986	PRI
	1986-1993	PRI
	1993-1999	PRI
	1999-2005	PRD
Campeche	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PRI
Coahuila	1981-1987	PRI
	1987-1993	PRI
	1993-1999	PRI
	1999-2005	PRI
Colima	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PRI
Chiapas	1982-1988	PRI
	1988-1995	PRI
	1995-2000	PRI
	2000-2006	Coalition PAN-PRD-PT-PVEM and others

TABLE B.1. (Part II)

State	Term of the governor's mandate	Party of the state governor
Chihuahua	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PAN
	1998-2004	PRI
Durango	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Guanajuato	1985-1991	PRI
	1991-1995	PAN
	1995-2000	PAN
	2000-2006	PAN
Guerrero	1980-1986	PRI
	1986-1993	PRI
	1993-1999	PRI
	1999-2006	PRI
Hidalgo	1981-1987	PRI
	1987-1993	PRI
	1993-1999	PRI
	1999-2005	PRI
Jalisco	1982-1988	PRI
	1988-1995	PRI
	1995-2000	PAN
	2000-2006	PAN
Estado de México	1981-1987	PRI
	1987-1993	PRI
	1993-1999	PRI
	1999-2005	PRI
Michoacán	1980-1986	PRI
	1986-1992	PRI
	1992-1995	PRI
	1995-2001	PRI
	2001-2007	Coalition PRD-PT-PVEM and others

TABLE B.1. (Part III)

State	Term of the governor's mandate	Party of the state governor
Morelos	1982-1988	PRI
	1988-1994	PRI
	1994-2000	PRI
	2000-2006	PAN
Nayarit	1981-1987	PRI
	1987-1993	PRI
	1993-1999	PRI
	1999-2005	Coalition between PRD and others
Nuevo León	1979-1985	PRI
	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PAN
Oaxaca	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Puebla	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Querétaro	1979-1985	PRI
	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PAN
Quintana Roo	1975-1981	PRI
	1981-1987	PRI
	1987-1993	PRI
	1993-1999	PRI
	1999-2005	PRI
San Luis Potosí	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PRI

TABLE B.1. (Part IV)

State	Term of the governor's mandate	Party of the state governor
Sinaloa	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Sonora	1979-1985	PRI
	1985-1991	PRI
	1991-1997	PRI
	1997-2003	PRI
Tabasco	1982-1988	PRI
	1988-1994	PRI
	1994-2001	PRI
	2001-2007	PRI
Tamaulipas	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Tlaxcala	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	Coalition PRD-PT-PVEM
Veracruz	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRI
Yucatán	1981-1987	PRI
	1987-1995	PRI
	1995-2001	PRI
	2001-2007	Coalition PAN-PRD-PT-PVEM
Zacatecas	1980-1986	PRI
	1986-1992	PRI
	1992-1998	PRI
	1998-2004	PRD

Source: Elaborated on the basis of CIDAC database of gubernatorial elections ([www.cidac.org.mx](http://www.cidac.org.mx))

## Appendix C. Construction of the variables

TABLE C.1. Definition and calculation of each variable and data sources (Part I)

Variable	Definition	Calculation	Data sources
<i>Political variables</i>			
Margin of electoral victory	Difference in the proportion of votes between the two strongest parties in a municipal election	[(votes for the winning party)-(votes for the closest competitor)] / number of effective votes	CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .
Effective number of parties (Laakso-Taagepera index)		$N = 1 / \sum_{i=1}^n p_i^2$ <p>where n stands for the number of parties participating in the election, and <math>p_i</math> is the proportion of votes of the <math>i^{th}</math> party</p>	Laakso-Taagepera (1979) and CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .
Voter turnout rate	Effective votes as a proportion of potential voters	Effective votes/people ages 18 and older	CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .
Party alternation	Indicates whether the party governing the municipality is different than the party of the previous administration	Dummy variable	CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .
Juxtaposition (vertically divided local government)	Indicates whether there is a divergence in party memberships between the president of a municipality and the state governor	Dummy variable	CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .
Electoral year	Indicates whether the municipality had a local election in a specific year (see Appendix A for the electoral calendar of each state)	Dummy variable	CIDAC, <i>Base de datos de elecciones locales, 1980-2000</i> .



TABLE C.1. (Part II)

Variable	Definition	Calculation	Data sources
<i>Public finance variables</i>			
Revenue-sharing grants	Unconditional funds that the federal government transfers to municipalities in Mexico (via the states) every year ( <i>participaciones</i> )	Total revenue-sharing grants (in constant pesos of 2001) divided by population	INEGI, <i>Finanzas Públicas Estatales y Municipales</i> , 1989-2001.
Earmarked grants for municipal development	Earmarked grants that the federal government transfers to municipalities in Mexico (via the states) since 1998, which are used to cover the financial liabilities of municipal governments and public safety tasks ( <i>Fondo de Aportaciones para el Fortalecimiento de los Municipios y de las Demarcaciones Territoriales del Distrito Federal</i> or FORTAMUN)	Total FORTAMUN resources (in constant pesos of 2001) divided by population.	INAFED, <i>Sistema Nacional de Información Municipal</i> .
Earmarked grants for basic infrastructure	Earmarked grants that the federal government transfers to municipalities in Mexico (via the states) since 1998, which are used to cover basic infrastructure projects ( <i>Fondo de Aportaciones para la Infraestructura Social Municipal</i> or FISM).	Total FISM resources (in constant pesos of 2001) divided by population.	INAFED, <i>Sistema Nacional de Información Municipal</i> .
Locally-generated revenues	Proceeds from property taxes ( <i>impuesto predial</i> ), user fees ( <i>derechos</i> ), from sale or lease of municipal assets ( <i>productos</i> ), and fines and other sources ( <i>aprovechamientos</i> )	Sum of the four categories (in constant pesos of 2001) divided by population.	INEGI, <i>Finanzas Públicas Estatales y Municipales</i> , 1989-2001.

TABLE C.1. (Part III)

Variable	Definition	Calculation	Data sources
Current (administrative) expenditures	INEGI uses this category to include all expenditures on human resources and other supplies for the operation of the local government	Current expenditures (in constant pesos of 2001) divided by population.	INEGI, <i>Finanzas Públicas Estatales y Municipales</i> , 1989-2001.
Public works expenditures	Expenditures for public works and other assets	Public works expenditures (in constant pesos of 2001) divided by population.	INEGI, <i>Finanzas Públicas Estatales y Municipales</i> , 1989-2001.
<i>Sociodemographic and service provision variables</i>			
Population			INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Poverty rate	Percentage of working force earning less than one minimum wage	Employed population earning less than one minimum wage / total employed population per municipality	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Literacy rate	Percentage of people between ages 6 to 14 who report they know how to read	People between ages 6 to 14 who know to read / total population between ages 6 to 14	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Geographical dispersion of population	Proportion of localities with a population less than 1000 inhabitants	Localities with a population less than 1000 inhabitants / total number of localities	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Water coverage	Proportion of households that have water inside their dwelling, within the terrain where the dwelling is settled, carried from the street, or carried from other dwellings	Households with access to water / total number of households	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Drainage coverage	Proportion of households whose sewer is connected either to the street or to a septic tank	Households with access to drainage/ total number of households	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .

TABLE C.1. (Part IV)

Variable	Definition	Calculation	Data sources
Electrification coverage	Proportion of households with electricity	Households with electricity / total number of households	INEGI, <i>Censo General de Población y Vivienda 1990 and 2000</i> .
Socioeconomic deprivation	Composite index based on the following indicators: 1) % of houses without water; 2) % of houses without sewage; 3) % of houses without electricity; 4) % of houses with a dirt floor; 5) average number of occupants per room; 6) % of population 15 and over that are illiterate; 7) % of population that did not graduate from primary school; 8) % of population living in localities with less than 5000 people; 9) % of population with insufficient income to purchase a basket of basic goods.		CONAPO. 2000. <i>Indíces de Marginación</i>

## Appendix D. Descriptive statistics of the variables

TABLE D.1. Descriptive statistics of the variables (Part I)

Year	N	Mean	Std. Dev.	Min	Max
<i>Margin of electoral victory</i>					
1990	1906	0.559	0.33	0.002	1
1991	1906	0.559	0.33	0.002	1
1992	1916	0.524	0.328	0	1
1993	1950	0.49	0.328	0	1
1994	1956	0.465	0.317	0	1
1995	1955	0.392	0.302	0.001	1
1996	1950	0.296	0.257	0.001	1
1997	1950	0.26	0.241	0	1
1998	1951	0.216	0.216	0	1
1999	1967	0.201	0.199	0	1
2000	1967	0.194	0.197	0	1
2001	1967	0.189	0.195	0.001	1
<i>Laakso-Taagepera index of the effective number of parties</i>					
1990	1906	1.603	0.481	1	3.204
1991	1906	1.603	0.481	1	3.204
1992	1916	1.656	0.483	1	3.209
1993	1950	1.703	0.482	1	3.598
1994	1956	1.751	0.479	1	3.598
1995	1955	1.883	0.491	1	3.598
1996	1950	2.067	0.499	1	5.13
1997	1950	2.135	0.512	1	5.13
1998	1951	2.28	0.566	1	5.13
1999	1967	2.327	0.557	1	4.985
2000	1967	2.323	0.555	1	4.985
2001	1967	2.4	0.651	1	5.75
<i>Voter turnout rate</i>					
1990	1892	0.42	0.2	0.032	1
1991	1892	0.42	0.2	0.032	1
1992	1901	0.441	0.188	0.032	1
1993	1935	0.471	0.178	0.042	1
1994	1941	0.498	0.166	0.042	1
1995	1940	0.553	0.168	0.048	1
1996	1935	0.581	0.151	0.013	1
1997	1935	0.587	0.15	0.013	1
1998	1936	0.605	0.154	0.013	1
1999	1951	0.642	0.141	0.001	1
2000	1951	0.656	0.14	0.001	1
2001	1951	0.682	0.135	0.001	1

TABLE D.1. (Part II)

Year	N	Mean	Std. Dev.	Min	Max
<i>Administrative expenditures per capita (adjusted for inflation)</i>					
1990	1969	301.801	451.814	0	10556.19
1991	1969	339.371	561.905	0	14673.81
1992	1969	368.247	532.556	0	13904.22
1993	1969	401.823	500.502	0	11352.57
1994	1969	436.051	497.433	0	10738.53
1995	1969	386.57	521.91	0	13334.68
1996	1969	415.891	643.635	0	19929.32
1997	1969	425.424	420.795	0	5945.16
1998	1969	482.898	468.762	0	7428.447
1999	1969	528.832	499.676	0	7670.566
2000	1969	577.069	551.3	0	8143.416
2001	1587	714.268	690.641	0	10457.93
<i>Public works investments per capita (adjusted for inflation)</i>					
1990	1969	168.479	373.154	0	7128.852
1991	1969	156.295	260.684	0	5646.08
1992	1969	157.716	226.895	0	4338.512
1993	1969	167.891	250.396	0	4739.315
1994	1969	184.232	255.17	0	4000.8
1995	1969	148.256	216.099	0	3462.835
1996	1969	164.34	269.716	0	4906.792
1997	1969	171.381	281.475	0	4282.653
1998	1969	221.004	280.232	0	4142.738
1999	1969	293.173	382.735	0	6809.253
2000	1969	303.146	377.71	0	4958.419
2001	1587	471.562	393.928	0	7078.398
<i>Municipal tax revenues per capita (adjusted for inflation)</i>					
1990	1969	44.538	203.751	0	7732.61
1991	1969	53.644	116.253	0	1789.448
1992	1969	58.444	111.949	0	1724.022
1993	1969	61.337	110.936	0	2007.972
1994	1969	62.388	109.898	0	2164.352
1995	1969	50.467	99.289	0	1834.963
1996	1969	43.632	79.987	0	1036.06
1997	1969	40.467	73.839	0	1720.189
1998	1969	40.246	77.743	0	1853.275
1999	1969	41.237	73.864	0	1188.686
2000	1969	41.963	87.842	0	1728.533
2001	1587	55.389	91.282	0	1577.065

TABLE D.1. (Part III)

Year	N	Mean	Std. Dev.	Min	Max
<i>Revenue-sharing transfers per capita (adjusted for inflation)</i>					
1990	1969	373.774	586.326	0	11732.22
1991	1969	389.814	603.692	0	15276.62
1992	1969	429.092	608.597	0	14600.3
1993	1969	444.953	553.66	0	10858.36
1994	1969	537.483	606.444	0	10271.05
1995	1969	451.233	579.671	0	13946.27
1996	1969	498.078	629.953	0	16261.76
1997	1969	535.117	521.925	0	6783.675
1998	1969	612.199	584.104	0	7473.684
1999	1969	648.624	634.217	0	8299.657
2000	1969	687.428	686.646	0	8838.807
2001	1587	749.029	847.589	0	12793.35
<i>Municipal revenues per capita from user fees (adjusted for inflation)</i>					
1990	1969	22.003	60.488	0	1349.185
1991	1969	25.325	58.01	0	1435.705
1992	1969	27.888	61.306	0	1533.742
1993	1969	26.675	50.752	0	1011.09
1994	1969	25.041	40.815	0	481.672
1995	1969	18.819	33.021	0	562.601
1996	1969	25.044	78.51	0	2894.804
1997	1969	24.22	34.593	0	425.147
1998	1969	25.242	38.765	0	511.23
1999	1969	27.476	41.135	0	468.532
2000	1969	31.201	48.037	0	490.695
2001	1587	40.974	55.698	0	609.479
<i>Municipal debt per capita (adjusted for inflation)</i>					
1990	1969	28.125	95.304	0	2047.778
1991	1969	28.151	83.099	0	1338.241
1992	1969	22.001	57.406	0	717.496
1993	1969	48.109	125.083	0	2419.665
1994	1969	47.262	129.331	0	2788.164
1995	1969	33.556	98.685	0	1201.682
1996	1969	35.282	117.42	0	2033.646
1997	1969	22.954	71.734	0	1563.087
1998	1969	30.672	80.568	0	1164.773
1999	1969	20.054	64.557	0	1429.778
2000	1969	21.871	59.425	0	769.893
2001	1587	39.168	104.367	0	1517.637

TABLE D.1. (Part IV)

Year	N	Mean	Std. Dev.	Min	Max
<i>Earmarked grants for municipal development (FORTAMUN) per capita (adjusted for inflation)</i>					
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	1969	102.605	6.825	42.281	262.12
1999	1969	187.408	15.205	78.531	478.301
2000	1969	203.64	162.266	0.888	5350.729
2001	1969	440.035	2449.535	0	58988.71
<i>Earmarked grants for social infrastructure (FISM) per capita (adjusted for inflation)</i>					
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	1969	238.153	135.355	13.755	1127.813
1999	1969	276.077	158.749	14.255	1153.097
2000	1969	291.415	179.322	13.334	1325.31
2001	1969	334.639	273.904	0	5751.797
<i>CONAPO index of social deprivation</i>					
1990	1969	-0.138	0.955	-2.36	3.39
2000	1969	-0.138	0.955	-2.36	3.39
2001	1969	-0.138	0.955	-2.36	3.39
<i>Locally-generated revenues per capita (adjusted for inflation)</i>					
1990	1969	117.19	307.486	0	10233.07
1991	1969	143.904	292.066	0	5971.43
1992	1969	139.957	234.567	0	4267.76
1993	1969	145.448	233.036	0	3930.29
1994	1969	150.015	225.553	0	3340.432
1995	1969	118.56	197.952	0	4470.526
1996	1969	98.952	195.089	0	4992.284
1997	1969	95.201	131.669	0	1777.968
1998	1969	110.57	162.945	0	2650.902
1999	1969	108.533	164.893	0	2805.708
2000	1969	108.917	168.151	0	2140.386
2001	1587	169.889	218.911	0	2722.403

TABLE D.1. (Part V)

Year	N	Mean	Std. Dev.	Min	Max
<i>Population</i>					
1990	1969	36497.58	95921.12	377	1650205
1995	1969	41099.25	108762.8	306	1632521
2000	1969	44059.83	118142.2	279	1646319
<i>Literacy rate</i>					
1990	1969	0.836	0.089	0.305	0.982
1995	1954	0.823	0.099	0.233	0.99
2000	1968	0.844	0.073	0.376	0.966
<i>Poverty rate</i>					
1990	1969	0.366	0.211	0.038	0.995
1995	1968	0.311	0.188	0.038	0.903
2000	1968	0.273	0.183	0.018	0.91
<i>Water coverage</i>					
1990	1969	0.665	0.233	0	1
2000	2008	0.786	0.192	0.003	0.995
<i>Drainage coverage</i>					
1990	1969	0.329	0.243	0.000	0.981
2000	2008	0.512	0.268	0.000	0.993
<i>Electrification coverage</i>					
1990	1969	0.767	0.210	0.000	0.997
2000	2008	0.899	0.115	0.097	0.997



## Appendix E. Frequency distribution of the survey items utilized to construct the institutional capacity indices

TABLE E.1. Frequency distribution of the survey item: “Which of the following regulation codes exists in the municipality?” (Part I)

City code ( <i>Bando de policía y buen gobierno</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	380	18.9	No	307	15.3
Yes	1629	81.1	Yes	1702	84.7
Total	2009	100	Total	2009	100
Local government operation guidelines ( <i>reglamento interior del ayuntamiento</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	748	37.2	no	788	39.2
Yes	1261	62.8	yes	1221	60.8
Total	2009	100	Total	2009	100
Administration code ( <i>reglamento de administración</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
no	1161	57.7	no	1267	63.1
yes	848	42.2	yes	742	36.9
Total	2009	100	Total	2009	100
Public works act ( <i>reglamento de obras públicas</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
no	1001	49.8	no	944	47
yes	1008	50.2	yes	1065	53
Total	2009	100	Total	2009	100
Land use and zoning act ( <i>reglamento de zonificación y uso de suelos</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1538	76.5	no	1366	68
Yes	471	23.4	yes	643	32
Total	2009	100	Total	2009	100
Housing estate act ( <i>reglamento de fraccionamiento y municipalización</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1583	78.8	no	1498	74.6
Yes	426	21.2	yes	511	25.4
Total	2009	100	Total	2009	100

TABLE E.1. (Part II)

Citizen participation act ( <i>reglamento de participacion ciudadana</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1481	73.7	no	1480	73.7
Yes	528	26.3	yes	529	26.3
Total	2009	100	Total	2009	100
Public safety act ( <i>reglamento de proteccion civil</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
no	1151	57.2	no	1045	52
yes	858	42.7	yes	964	48
Total	2009	100	Total	2009	100
Public entertainment act ( <i>reglamento de espectáculos y diversiones públicas</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1239	61.6	no	1245	62
Yes	770	38.3	yes	764	38
Total	2009	100	Total	2009	100
Alcoholic drink retail act ( <i>reglamento de expendios de bebidas alcohólicas</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	828	41.2	no	805	40.1
Yes	1181	58.8	yes	1204	59.9
Total	2009	100	Total	2009	100
Fire regulations ( <i>reglamento de bomberos</i> )					
1995			2000		
	Frequency	Percent		Frequency	Percent
no	1899	94.5	no	1864	92.8
yes	110	5.5	yes	145	7.2
Total	2009	100	Total	2009	100

Source: INEGI, *Censo de Desarrollo Municipal 1995*; INEGI-INDESOL, *Censo de Desarrollo Municipal 2000*.

TABLE E.2. Frequency distribution of the survey item: “What was the highest level of schooling that the following officials attained?” (Part I)

Secretary ( <i>secretario del ayuntamiento</i> )			
Index value		Frequency	Percent
0	None	1	0
1	Elementary, incomplete	33	1.6
2	Elementary, complete	105	5.2
3	Middle school, incomplete	22	1.1
4	Middle school, complete	231	11.5
5	Technical or commercial, incomplete	9	0.4
6	Technical or commercial, complete	155	7.7
7	High school, incomplete	41	2
8	High school, complete	206	10.3
9	College, incomplete	95	4.7
10	College, complete	1023	50.9
11	Graduate, incomplete	12	0.6
12	Graduate, complete	66	3.3
	Missing	10	0.5
	Total	2009	100
Administrative director			
		Frequency	Percent
0	None	6	0.3
1	Elementary, incomplete	18	0.9
2	Elementary, complete	117	5.8
3	Middle school, incomplete	11	0.5
4	Middle school, complete	131	6.5
5	Technical or commercial, incomplete	1	0
6	Technical or commercial, complete	74	3.7
7	High school, incomplete	16	0.8
8	High school, complete	125	6.2
9	College, incomplete	48	2.4
10	College, complete	439	21.9
11	Graduate, incomplete	2	0.1
12	Graduate, complete	26	1.3
	Missing	995	49.5
	Total	2009	100

TABLE E.2. (Part II)

Treasurer			
		Frequency	Percent
0	None	3	0.1
1	Elementary, incomplete	44	2.2
2	Elementary, complete	181	9
3	Middle school, incomplete	21	1
4	Middle school, complete	191	9.5
5	Technical or commercial, incomplete	4	0.2
6	Technical or commercial, complete	196	9.8
7	High school, incomplete	24	1.2
8	High school, complete	178	8.9
9	College, incomplete	67	3.3
10	College, complete	1034	51.5
11	Graduate, incomplete	10	0.5
12	Graduate, complete	52	2.6
	Missing	4	0.2
	Total	2009	100
Public works director			
		Frequency	Percent
0	None	5	0.2
1	Elementary, incomplete	52	2.6
2	Elementary, complete	161	8
3	Middle school, incomplete	13	0.6
4	Middle school, complete	176	8.8
5	Technical or commercial, incomplete	3	0.1
6	Technical or commercial, complete	62	3.1
7	High school, incomplete	14	0.7
8	High school, complete	128	6.4
9	College, incomplete	46	2.3
10	College, complete	1004	50
11	Graduate, incomplete	3	0.1
12	Graduate, complete	27	1.3
	Missing	315	15.7
	Total	2009	100

TABLE E.2. (Part III)

Director of public safety			
		Frequency	Percent
0	None	11	0.5
1	Elementary, incomplete	106	5.3
2	Elementary, complete	468	23.3
3	Middle school, incomplete	42	2.1
4	Middle school, complete	496	24.7
5	Technical or commercial, incomplete	5	0.2
6	Technical or commercial, complete	64	3.2
7	High school, incomplete	26	1.3
8	High school, complete	274	13.6
9	College, incomplete	40	2
10	College, complete	322	16
11	Graduate, incomplete	1	0
12	Graduate, complete	11	0.5
	Missing	143	7.1
	Total	2009	100
Municipal comptroller			
		Frequency	Percent
0	None	2	0.1
1	Elementary, incomplete	31	1.5
2	Elementary, complete	100	5
3	Middle school, incomplete	5	0.2
4	Middle school, complete	85	4.2
5	Technical or commercial, incomplete	3	0.1
6	Technical or commercial, complete	70	3.5
7	High school, incomplete	7	0.3
8	High school, complete	94	4.7
9	College, incomplete	37	1.8
10	College, complete	672	33.4
11	Graduate, incomplete	4	0.2
12	Graduate, complete	24	1.2
	Missing	875	43.6
	Total	2009	100

TABLE E.2. (Part IV)

Director of planning			
		Frequency	Percent
0	None	1	0
1	Elementary, incomplete	5	0.2
2	Elementary, complete	17	0.8
3	Middle school, incomplete	2	0.1
4	Middle school, complete	31	1.5
5	Technical or commercial, incomplete	28	1.4
6	Technical or commercial, complete	0	0
7	High school, incomplete	3	0.1
8	High school, complete	40	2
9	College, incomplete	23	1.1
10	College, complete	447	22.2
11	Graduate, incomplete	3	0.1
12	Graduate, complete	31	1.5
	Missing	1378	68.6
	Total	2009	100
Director of Evaluation			
		Frequency	Percent
0	None		
1	Elementary, incomplete	1	0
2	Elementary, complete	13	0.6
3	Middle school, incomplete	1	0
4	Middle school, complete	16	0.8
5	Technical or commercial, incomplete	21	1
6	Technical or commercial, complete	0	0
7	High school, incomplete	0	0
8	High school, complete	31	1.5
9	College, incomplete	13	0.6
10	College, complete	185	9.2
11	Graduate, incomplete	1	0
12	Graduate, complete	12	0.6
	Missing	1715	85.4
	Total	2009	100

TABLE E.2. (Part V)

Director of social participation			
		Frequency	Percent
0	None	2	0.1
1	Elementary, incomplete	4	0.2
2	Elementary, complete	48	2.4
3	Middle school, incomplete	2	0.1
4	Middle school, complete	83	4.1
5	Technical or commercial, incomplete	1	0
6	Technical or commercial, complete	62	3.1
7	High school, incomplete	11	0.5
8	High school, complete	113	5.6
9	College, incomplete	38	1.9
10	College, complete	404	20.1
11	Graduate, incomplete	3	0.1
12	Graduate, complete	16	0.8
	Missing	1222	60.8
	Total	2009	100
Personnel Management Director			
		Frequency	Percent
0	None	1	0
1	Elementary, incomplete	6	0.3
2	Elementary, complete	27	1.3
3	Middle school, incomplete	3	0.1
4	Middle school, complete	55	2.7
5	Technical or commercial, incomplete		
6	Technical or commercial, complete	51	2.5
7	High school, incomplete	6	0.3
8	High school, complete	85	4.2
9	College, incomplete	29	1.4
10	College, complete	324	16.1
11	Graduate, incomplete	2	0.1
12	Graduate, complete	14	0.7
	Missing	1406	70
	Total	2009	100

Source: INEGI-INDESOL, *Censo de Desarrollo Municipal 2000*.

TABLE E.3. Frequency distribution of the survey items: “Does the municipality have a personnel management department?” and “What are the tasks that the personnel management department carries out?”

Does the municipality have a personnel management division?					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1188	59.0	No	1149	57.0
Yes	821	41.0	Yes	860	43.0
Total	2009	100	Total	2009	100
The division carries out recruitment, selection, and hiring functions					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1429	71.1	No	1284	63.9
Yes	580	28.9	Yes	725	36.1
Total	2009	100	Total	2009	100
The division carries out job induction functions					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1643	81.7	No	1601	79.7
Yes	366	18.2	Yes	408	20.3
Total	2009	100	Total	2009	100
The division carries out training and development functions					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1528	76	No	1401	69.7
Yes	481	23.9	Yes	608	30.3
Total	2009	100	Total	2009	100
The division carries out incentives and performance functions					
1995			2000		
	Frequency	Percent		Frequency	Percent
No	1575	78.4	No	1503	74.8
Yes	434	21.6	Yes	506	25.2
Total	2009	100	Total	2009	100

Sources: INEGI, *Censo de Desarrollo Municipal 1995*; INEGI-INDESOL, *Censo de Desarrollo Municipal 2000*.



## Bibliography

1994. *Constitución Política de los Estados Unidos Mexicanos*. Mexico: UNAM. Instituto de Investigaciones Jurídicas
1998. *Ley De Coordinación Fiscal*. Mexico: Gobierno de los Estados Unidos Mexicanos.
2004. *Declaratoria a la nación y acuerdos de los trabajos de la Primera Convención Nacional Hacendaria*, Gobierno de los Estados Unidos Mexicanos.
- Ades, Alberto and Rafael di Tella. 1996. "The Causes and Consequences of Corruption: A Review of Recent Empirical Contributions." *IDS Bulletin* 27, No. 2.
- Alesina, Alberto, et. al. 1996. "Budget Institutions and Fiscal Performance in Latin America". Working Paper 5586. Cambridge: National Bureau of Economic Research.
- Ames, Barry. 1987. *Political Survival. Politicians and Public Policy in Latin America*. Berkeley: University of California Press.
- Arellano, Rogelio, comp. 1996. *Mexico: hacia un Nuevo federalismo fiscal*. Mexico: Fondo de Cultura Economica.
- Azfar, Omar, S. Kähkönen, and P. Meagher. 2001. "Conditions for Effective Decentralized Governance: A Synthesis of Research Findings", IRIS Center Working Paper 256. College Park MD: University of Maryland.
- Bahl, Roy, and J. Linn. 1992. *Urban public finance in developing countries*. Oxford: Oxford University Press.
- Beer, Caroline C. 2003. *Electoral Competition and Institutional Change in Mexico*. Notre Dam IN: University of Notre Dam Press.
- Beer, Caroline C. 2004. "Electoral Competition and Fiscal Decentralization in Mexico". In *Decentralization and Democracy in Latin America*, edited by Alfred P. Montero and David J. Samuels, Notre Dame: University of Notre Dame Press.
- Bird, Richard and F. Vaillancourt, eds. 1998. *Fiscal decentralization in developing countries*. Cambridge: Cambridge University Press.

- Bruhn, Kathleen. 1999. "PRD Local Governments in Michoacán: Implications for Mexico's Democratization Process". In *Subnational Politics and Democratization in Mexico*, edited by Wayne Cornelius, Todd Eisenstadt, and Jane Hindley. La Jolla CA: Center for U.S.-Mexican Studies. University of California in San Diego.
- Brunetti, Aymo, Gregory Kisunko, and Weder. 1997. "Institutional Obstacles to Doing Business: Region-by-Region Results from a Worldwide Survey of the Private Sector". Policy Research Working Paper No. 1759. Washington DC: The World Bank.
- Cabrero-Mendoza, Enrique. 1996. *La nueva gestión municipal en México: Análisis de experiencias innovadoras en gobiernos locales*, Mexico: Porrúa-CIDE.
- Cabrero-Mendoza, Enrique, coord. 1998. *Las políticas descentralizadoras en México. Logros y desencantos*. Mexico: Porrúa-CIDE.
- Cabrero-Mendoza, Enrique and J. Martínez-Vázquez. 2000. "Assignment of Spending Responsibilities and Service Delivery". In *Achievements and Challenges of Fiscal Decentralization. Lessons from Mexico*, edited by Marcelo M. Giugale and S. Webb. Washington DC: The World Bank.
- Cabrero-Mendoza, Enrique, and I. Orihuela. 2000. "Expansión Financiera y Gestión Hacendaria en Municipios de México (1978-1997)." Working Paper of the Department of Public Administration No.87. Mexico: CIDE.
- Cabrero-Mendoza, Enrique and A. Carrera. 2002. "Fiscal Decentralization and Institutional Constraints. Paradoxes of the Mexican Case". Working Paper of The Department of Public Administration No. 85. Mexico: CIDE.
- Campbell, Tim, and Harald Fuhr, eds. 2004. *Leadership and Innovation in Subnational Government. Case Studies from Latin America*. Washington DC: World Bank Institute.
- Cardozo, Myriam. 1993. "La descentralización de los servicios de salud en México: hacia la amnesia total o hacia la recuperación de la política", *Gestión y política pública* 2: 365-391.
- Chong, Alberto and Cesar Calderón. 1997. "Institutional Change and Poverty, or Why is it Worth it to Reform the State?" Mimeograph. Washington, DC: The World Bank.
- Cleary, Matthew. 2004. "Electoral Competition and Democracy in Mexico". Ph.D. Dissertation, Department of Political Science, University of Chicago.

- Coleman, James. 1990. *Foundations of Social Theory*. Cambridge: Harvard University Press.
- CONAPO (Mexican National Population Council). 2000. *Indices de Marginación*. Mexico: CONAPO.
- Cornelius, Wayne, Judith Gentleman, and Peter Smith, eds. 1989. *Mexico's Alternative Political Futures*. La Jolla: University of California at San Diego, Center for U.S.-Mexican Studies, Monograph Series No. 30.
- Cornelius, Wayne, Ann L. Craig, and Jonathan Fox, eds. 1994. *Transforming State-Society Relations in Mexico: the National Solidarity Strategy*. La Jolla CA: Center for U.S.-Mexican Studies. University of California in San Diego.
- Cornelius, Wayne. 1999. "Subnational Politics and Democratization: Tensions between Center and Periphery in the Mexican Political System." In *Subnational Politics and Democratization in Mexico*, edited by Wayne Cornelius, Todd Eisenstadt, and Jane Hindley. La Jolla CA: Center for U.S.-Mexican Studies. University of California in San Diego.
- Cornelius, Wayne, Todd A. Eisenstadt and J. Hindley. 1999. *Subnational Politics and Democratization in Mexico*. La Jolla CA: Center for U.S.-Mexican Studies. University of California in San Diego.
- Courchene, Thomas, Alberto Díaz-Cayeros, and Steven B. Webb. 2000. "Historical Forces: Geographical and Political". In *Achievements and Challenges of Fiscal Decentralization. Lessons from Mexico*, edited by Marcelo M. Giugale and S. Webb, Washington DC: The World Bank.
- Cox, Gary W. and Matthew D. McCubbins. 1986. "Electoral Politics as a Redistributive Game", *The Journal of Politics* 48, No.2: 370-389.
- Cukierman, Alex, et. al. 1994. "Measuring Central Bank Independence and Its Effect on Policy Outcomes". International Center for Economic Growth Occasional Paper No. 58: 1-62.
- De Mello, Luiz R. 1999. "Intergovernmental Fiscal Relations: Coordination Failures and Fiscal Outcomes". *Public Budgeting and Finance* 19, Num. 1:3-25.
- De Remes, Alain. 1998. "The Causes of Juxtaposition: A Theoretical Framework for the Study of Municipal and State Elections in Mexico", Working Paper of the Department of Political Studies No. 96, Mexico: CIDE.
- De Remes, Alain. 1999. "Gobiernos yuxtapuestos en México: hacia un marco analítico para el estudio de las elecciones municipales," in *Política y Gobierno* 6, No.1: 225-253.

- Díaz-Cayeros, Alberto. 1995. *Desarrollo económico e inequidad regional: Hacia un nuevo pacto federal en México*. Mexico: Fundacion Friedrich Naumann, Centro de Investigacion para el Desarrollo and Miguel Angel Porrua.
- Díaz-Cayeros, Alberto. 1997. "Political Responses to Regional Inequality. Taxation and Distribution in Mexico." Ph.D Dissertation. Department of Political Science. Duke University.
- Díaz-Cayeros, Alberto and Beatriz Magaloni. 2003. "The Politics of Public Spending – Part II. The Programa Nacional de Solidaridad (PRONASOL) in Mexico", Prepared as a Background Paper for the World Bank *World Development Report 2004*.
- Downs, Anthony 1957. *An Economic Theory of Democracy*. New York: Harper and Row.
- Eckstein, H. 1971. "The Evaluation of Political Performance: Problems and Dimensions." Sage Professional Papers in Comparative Politics 2: 1-17.
- Eskeland G. S. and H. Thiele. 1999. "Corruption Under Moral Hazard". Working Paper No. 2204. Washington DC: The World Bank.
- Fagen, Richard R. and William S. Touhy. 1972. *Politics and Privilege in a Mexican City*. Stanford CA: Stanford University Press.
- Fiorina, Morris 1978. "Economic Retrospective Voting in American National Elections: A Micro-Analysis". *American Journal of Political Science* 22, No. 2: 426-443.
- Fiorina, Morris. 1981. *Retrospective Voting in American National Elections*. New Haven and London: Yale University Press.
- Fiszbein, Ariel. 2005. *Citizens, Politicians, and Providers: The Latin American Experience with Service Delivery Reform*. Washington DC: The World Bank.
- Fiszbein, Ariel. 1997. "The Emergence of Local Government Capacity: Lessons From Colombia". *World Development* 25, No. 8: 1029-1043.
- Flamand, Laura. 1997. "Las perspectivas del nuevo federalismo: el sector salud. Las experiencias en Aguascalientes, Guanajuato y San Luis Potosi". *Working Paper of the Department of Public Administration* num. 55, Mexico: CIDE.
- Flamand, Laura. 2004. "The Vertical Dimension of Government: Democratization and Federalism in Mexico". Ph.D. Dissertation, Department of Political Science, University of Rochester.

- Fox, Jonathan. 1994. "The Difficult Transition from Clientelism to Citizenship: Lessons from Mexico". *World Politics* 46, No. 2: 151-184.
- Fukasaku, Kiichiro and R. Hausmann eds. 1998. *Democracy, Decentralisation and Deficits in Latin America*, Washington DC: Inter American Development Bank-Organisation for Economic Cooperation and Development.
- Garrido, Luis Javier. 1989. "The Crisis of *Presidencialismo*". In *Mexico's Alternative Political Futures*, edited by Wayne Cornelius, Judith Gentleman, and Peter H. Smith,. Monograph Series, no.30; La Jolla, CA: Center for U.S.-Mexican Studies, University of California, San Diego.
- Geddes, Barbara. 1996. *Politician's Dilemma. Building State Capacity in Latin America*. Berkeley: University of California Press.
- Giugale, Marcelo M. and S. Webb. eds. 2000. *Achievements and Challenges of Fiscal Decentralization. Lessons from Mexico*. Washington DC: The World Bank.
- Goodspeed, Timothy. 2002. "OECD Territorial Review of Mexico." OECD Working Paper. Paris: OECD.
- Greene, William H. 1997. *Econometric Analysis*. Third Edition. New Jersey: Prentice Hall.
- Guillén López, Tonatiuh. 1993. *Baja California 1989-1992: balance de la transición democrática*. Tijuana: El Colegio de la Frontera.
- Guillén López, Tonatiuh. 1996. *Gobiernos municipales en Mexico. Entre la modernización y la tradición política*. Mexico: Porrúa-Colegio de la Frontera Norte.
- Heinrich, C. J. and Laurence E. L. Jr. 2000. "Means and Ends: A Comparative Study of Empirical Methods for Investigating Governance and Performance." *Journal of Public Administration Research and Theory* 11: 109-138.
- Herfindahl, Orris. 1950. "Concentration in the Steel Industry". PhD Dissertation, Columbia University.
- Hirschman, Albert O. 1970. *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.
- Hiskey, Jonathan. 2000. "Does Democracy Matter? Electoral Competition and Local Development in Mexico". Paper presented at the 2000 Latin American Studies Association Meeting.

- Hiskey, Jonathan. 2005. "The Political Economy of Subnational Economic Recovery in Mexico". *Latin American Research Review* 40, No. 1: 30-55.
- Hsiao, C. 2003. *Analysis of Panel Data*. 2<sup>nd</sup> ed. Cambridge MA: Cambridge University Press.
- 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 No. 1894*. Washington DC: The World Bank.
- INAFED. *Sistema Nacional de Información Municipal*. Available on line at [www.inafed.gob.mx](http://www.inafed.gob.mx).
- INEGI. 1990. *XI Censo General de Población y Vivienda*. Aguascalientes and Mexico City: INEGI.
- INEGI. 1991. *Finanzas Públicas Estatales y Municipales de México, 1979-1988*. Aguascalientes, Mexico: INEGI.
- INEGI. 2000. *XII Censo General de Población y Vivienda*. Aguascalientes and Mexico City: INEGI.
- J. L. Brudney, L. J. O'Toole and H. Rainey. eds. 2000. *Advancing Public Management: New Developments in Theory, Method, and Practice*. Washington DC.: Georgetown University Press.
- Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobaton. 1999a. "Aggregating Governance Indicators", Policy Research Department Working Paper 2195. Washington DC: The World Bank.
- Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobaton. 1999b. "Governance Matters." Policy Research Working Paper 2196. Washington DC: The World Bank.
- Kaufmann, Daniel and Aart Kraay. 2002. "Growth Without Governance". World Bank manuscript.
- Key, V. O. Jr. 1966. *The Responsible Electorate: Rationality in Presidential Voting, 1936-1960*. Cambridge, Mass.: The Belknap Press of Harvard University Press.
- Kramer, Gerald. 1971. "Short-Term Fluctuation in U.S. Voting Behavior, 1896-1964". *The American Political Science Review* 65, No. 1: 131-143.
- La Porta, et. al. 1998. "The Quality of Government". Working Paper No. 6727. Cambridge: National Bureau of Economic Research.

- Laakso, Markku and Rein Taagepera. 1979. "'Effective' Number of Parties: A Measure with Applications to West Europe". *Comparative Political Studies* 12: 3-27.
- Langston, Joy. 2001. "Why Rules Matter: Changes in Candidate Selection in Mexico's PRI, 1988 –2000". *Journal of Latin American Studies* 33, No. 3: 485-511.
- Levy, Daniel C., and Kathleen Bruhn. 2001. *Mexico. The Struggle for Democratic Development*. Berkeley: University of California Press.
- Litvack, Jennie, *et. al.* 1998. *Rethinking Decentralization in Developing Countries*. Washington DC: The World Bank.
- Lujambio, Alonso. 2000. *El poder compartido. Un ensayo sobre la democratización mexicana*. Mexico: Editorial Océano.
- Magaloni, Beatriz, A. Díaz-Cayeros, and F. Estévez. 2002. "The Erosion of Party Hegemony, Clientelism and Portfolio Diversification: The *Programa Nacional de Solidaridad (Pronasol)* in Mexico, unpublished manuscript.
- Mayhew, David R. 1974. *The Electoral Connection*. New Haven and London: Yale University Press.
- Merino, Mauricio. 1994. *En busca de la democracia municipal*. Mexico: El Colegio de Mexico.
- Mizrahi, Yemile. 1999. "Voto retrospectivo y desempeño gubernamental: las elecciones en el estado de Chihuahua". *Working Paper of the Department of Political Studies* num. 100, Mexico: CIDE.
- Molinar, Juan. 1991a. *El tiempo de la legitimidad: Elecciones, autoritarismo y democracia en México*. Mexico: Cal y Arena.
- Molinar, Juan. 1991b. "Counting the Number of Parties: An Alternative Index". *American Political Science Review* 85, No. 4: 1383-1391.
- Molinar, Juan and J. Weldon. 1994. "Electoral Determinants and Consequences of National Solidarity", en W. Cornelius, *et. al.* (eds.), *Transforming State Society Relations in Mexico: The National Solidarity Strategy*, San Diego CA: Center for U.S.-Mexican Studies, The University of California in San Diego.
- Montero, Alfred and David J. Samuels, eds. 2004. *Decentralization and Democracy in Latin America*. Notre Dame: University of Notre Dame Press.
- Montero, Alfred et al. 2004. "The Political Determinants of Decentralization in Latin America", in *Decentralization and Democracy in Latin America*, edited by Alfred P. Montero and David J. Samuels, Notre Dame: University of Notre Dame Press.

- Moreno-Jaimes, Carlos. 2002. "La descentralización del gasto en salud en México: una revisión de sus criterios de asignación", *Gestión y Política Pública* 11, no. 2: 373-406.
- Moreno-Jaimes, Carlos. 2003. "Fiscal Performance of Local Governments in Mexico: The Role of Federal Transfers", *Working Paper of the Department of Public Administration*, No. 127, Mexico: CIDE.
- Nordhaus, William D. 1975), "The political Business Cycle". *Review of Economic Studies* 42: 169-190.
- Norpoth, Helmut. 1996. "Presidents and the Prospective Voter", *The Journal of Politics* 58, No. 3:776-792.
- Oates, Wallace. 1972. *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Ornelas, Carlos. 1998. "El ámbito sectorial. La descentralización de la educación en México. El federalismo difícil". In *Las políticas descentralizadoras en México. Logros y desencantos*, coordinated by Enrique Cabrero-Mendoza. Mexico: Porrúa-CIDE.
- Ostrom, Elinor. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Pateman, Carole. 1970. *Participation and Democratic Theory*. New York: Cambridge University Press.
- Peredo, Alberto. 2003. "The Politics of Fiscal Decentralisation in Mexico: Tax Revenue, Welfare Expenditure and Intergovernmental Relations, 1994-2000". Ph.D. Dissertation, Department of Government, London School of Economics and Political Science.
- Peterson, George E. 1997. *Decentralization in Latin America. Learning Through Experience*. Washington DC: The World Bank.
- Prud'homme, Remy. 1995. "On the Dangers of Decentralization". *The World Bank Research Observer* 10, No. 2.
- Putnam, Robert. 1993. *Making Democracy Work. Civic Traditions in Modern Italy*. Princeton: Princeton University Press.



- Raich, Uri. 2003. *Impacts of Expenditure Decentralization on Mexican Local Governments*, Working Paper of the Department of Public Administration No. 102, Mexico: CIDE.
- Riker, William H. 1964. *Federalism. Origin and Significance*. Boston MA: Little Brown.
- Rodríguez, Victoria E. 1997. *Decentralization in Mexico: From Reforma Municipal to Solidaridad to Nuevo Federalismo*. Boulder CO: Westview Press.
- Rodríguez, Victoria E. and Peter M. Ward. 1992. *Policymaking, Politics, and Urban Governance in Chihuahua: The Experience of Recent Panista Governments*. Austin TX: LBJ School of Public Affairs, University of Texas at Austin.
- Rodríguez, Victoria E. and Peter M. Ward. 1994. *Political Change in Baja California: Democracy in the Making?*, Monograph Series, No. 40, San Diego CA: Center for U.S.-Mexican Studies, University of California, San Diego.
- Rodríguez, Victoria E. and Peter M. Ward. 1995. *Opposition Governments in Mexico*. Albuquerque: University of New Mexico Press.
- Rodríguez, Victoria E. 1998. "Opening the Electoral Space in Mexico. The Rise of the Opposition at the State and Local Levels", in *Urban Elections in Democratic Latin America*, edited by Henry A. Dietz and G. Shidlo. Wilmington: Scholarly Resources.
- Rodríguez-Gómez, Katya. 1999. "La descentralización del gasto social destinado a la construcción de infraestructura básica y su repercusión en la gestión municipal en México", paper presented at the conference Gobiernos Locales, El Futuro Político de México, Guadalajara, Jalisco, September 1999.
- Scott, John. 2004. "La descentralización, el gasto social y la pobreza en México". *Gestión y Política Pública* 13, No. 3: 785-831.
- Sempere, Jaime and H. Sobarzo, comps. 1998. *Federalismo fiscal en Mexico*. Mexico: El Colegio de Mexico.
- Sour, Laura. 2004. "El sistema de transferencias federales en México: Premio o castigo para el esfuerzo fiscal de los gobiernos locales urbanos?". *Gestión y Política Pública* 13, No. 3: 733-751.
- Tanzi, Vito. 1995. "Fiscal Federalism and Decentralization: A Review of Some Efficiency and Macroeconomic Aspects". *World Bank Annual Conference on Development Economics*. Washington DC: The World Bank.

- Tavits, Margit. 2002. "Measuring the Dependent Variable: Government Performance". Paper presented at the Annual Meeting of Southern Political Science Association. Savannah, Georgia, November 6-9, 2002.
- Tendler, Judith. 1997. *Good Government in the Tropics*. Baltimore: John Hopkins University Press.
- Ter-Minassian, Teresa, ed. 1997. *Fiscal Federalism in Theory and Practice*. Washington DC: International Monetary Fund.
- Tiebout, Charles. 1956. "A Pure Theory of Local Expenditures". *Journal of Political Economy* 64, No. 5: 416-424.
- Vega-Godínez, Alejandro. 1998. "Las perspectivas del Nuevo Federalismo: el sector de desarrollo regional y el combate a la pobreza. Las experiencias de Aguascalientes, Guanajuato y San Luis Potosí". Working Paper of the Department of Public Administration No. 62, Mexico: CIDE.
- Velásquez, Maria Cristina. 2000. *El Nombramiento. Las elecciones por usos y costumbres en Oaxaca*. Oaxaca: Instituto Estatal Electoral de Oaxaca.
- Ward, Peter. 1995. "Policy Making and Policy Implementation Among Non-PRI Governments: The PAN in Ciudad Juárez and in Chihuahua", in *Opposition Government in Mexico*, edited by Victoria Rodríguez and Peter Ward. Albuquerque: University of New Mexico Press.
- Ward, Peter M. 1998. "From Machine Politics to the Politics of Technocracy: Charting Changes in Governance in the Mexican Municipality". *Bulletin of Latin American Research* 17, No. 3: 341-365.
- Ward, Peter M. and V. Rodríguez. 1999a. "New Federalism, Intra-governmental Relations and Co-governance in Mexico", *Journal of Latin American Studies* 31, No. 3: 673-710.
- Ward, Peter M. and V. Rodríguez. 1999b. *New Federalism and State Government in Mexico*, U.S.-Mexican Policy Report No. 9, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin.
- Wei, Shang-Jin. 2000. "Natural Openness and Good Government, Cambridge". Working Paper No. 7765. Cambridge: National Bureau of Economic Research.
- Wooldridge, Jeffrey. 2002. *Econometric analysis of cross section and panel data*. Cambridge, Mass: MIT Press.
- Ziccardi, Alicia, coord. 1995. *La Tarea de gobernar: gobiernos locales y demandas ciudadanas*. Mexico: Porrúa-UNAM.

## **Vita**

Carlos Luis Moreno was born in Mexico City on September 14, 1970, the son of Carlos Moreno Arias and Saloie Jaimes Maldonado. After completing high school at ITESM, Campus Estado de México, he started undergraduate studies at El Colegio de México, where he obtained a Bachelor of Arts degree in Public Administration in 1995. Moreno obtained a Masters degree in Public Policy from the University of Chicago in 1997. In that year, he joined CIDE (Center of Research and Teaching in Economics), a social science research center in Mexico City, where he directed a masters program in public policy, taught courses on applied microeconomics and policy analysis, and participated in several research projects regarding administrative reform and decentralization in Mexico. In 2000 Moreno started the PhD program in Public Policy at the LBJ School of Public Affairs at the University of Texas at Austin, where he specialized in fiscal decentralization policy and local governance. During his doctoral studies, Moreno received a two-year fellowship from the University of Texas at Austin, a four-year scholarship from CONACYT, and the E.D. Farmer International Fellowship to conduct fieldwork in Mexico. In 2004 Moreno was awarded a visiting scholar fellowship at the Center for U.S.-Mexican Studies at the University of California, San Diego, where he completed his doctoral dissertation.

Permanent address: Mariano Escobedo No.1, Jilotepec, Estado de México, Mexico.

This dissertation was typed by the author.