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Los Angeles

**Presidentialism, Decentralization, and  
Distributive Politics in Latin America**

A dissertation submitted in partial satisfaction  
of the requirements for the degree  
Doctor of Philosophy in Political Science

by

**Felipe Nunes dos Santos**

2015

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ABSTRACT OF THE DISSERTATION

**Presidentialism, Decentralization, and  
Distributive Politics in Latin America**

by

**Felipe Nunes dos Santos**

Doctor of Philosophy in Political Science

University of California, Los Angeles, 2015

Professor Michael F. Thies, Chair

My dissertation focuses on how presidents allocate discretionary funds to localities. I study national leaders who often face a dilemma about how to allocate limited distributional resources to their greatest political advantage. I argue that the president's resource allocation strategy depends on the level of decentralization in a country. Presidents wish to allocate resources to their supporters in the electorate, and in centralized countries, they can do so directly, without any interference from local politicians. In decentralized countries, however, presidents must rely on local politicians as brokers, intermediaries between themselves and voters. Accordingly, presidents target localities with co-partisan mayors, even if most voters in the municipality did not support the president in the last election in decentralized settings. By analyzing 12 years of spending data in 100,000 municipalities, I show that presidents indeed allocate more to municipalities with presidential core voters in centralized Argentina and Venezuela, but mostly deliver resources to municipalities with local allies in decentralized Brazil and Mexico.

I also show that local politicians have more influence among voters in decentralized countries, and much less so in centralized cases. Using survey experiments and electoral observation data from Argentina, Brazil, Mexico and Venezuela, I show that a co-partisan mayor helps the president's approval and vote share in

decentralized, but not in centralized systems. By increasing the power of local politicians, decentralization creates an incentive for the president to support co-partisan mayors. In centralized countries, mayors are neither a threat nor an aid to presidential electoral prospects. By shaping presidential incentives, the degree of centralization affects short-term resource allocation and long-term efforts at party-building. These results help us to understand why in Venezuela and in Argentina presidents were able to deliver targetable goods to their voters in a higher pace than Brazil and Mexico presidents.

This dissertation includes three empirical chapters. In each one, I develop a test for the mechanisms of my theory of how a president who faces powerful opposition mayors but many core voters distribute discretionary resources. The test of the mechanisms help me to either address standing questions in a related literature or reveal new insights about the presidential allocative incentives in Latin America.

The first empirical chapter assesses the claim that decentralization increases the political influence of local politicians in national politics. I define 'strong' local politicians as being influential in policy decisions, and powerful in mobilizing voters. If local officers become more autonomous in deciding how resources are allocated in their districts, we should also expect them to have a bigger impact in the political life of such localities. This should be true if the theories of decentralization are correct, assuming that if an outcome is observed, and if voters vote retrospectively, and if there is no disagreement about who is responsible for the outcome, then voters should reward local politicians where decentralization exists. In centralized systems, however, the bias is in favor of central governments, which are more likely to be associated with improvements and benefits observed locally. The main implication of this idea is that the vote share of national elections should become highly correlated with the vote share of local elections.

I present cross-sectional electoral evidence for how a given president in de-

centralized systems tends to win more votes in the next electoral cycle in towns with co-partisan mayors than in towns without co-partisan mayors. I collected national and sub-national electoral results for executive and legislative elections in a range of at least two electoral cycles. In sum, this chapter shows that mayors in decentralized countries can either help or hurt presidential electoral prospects, but they neither help nor threaten presidents in centralized systems.

The second empirical chapter demonstrates how the effect of the municipal political profiles on presidential strategies about discretionary spending is conditioned on the extent of decentralization. Whereas presidents under decentralized rule tend to target municipalities governed by co-partisan mayors, presidents in centralized systems tend to distribute resources to municipalities where they themselves won a plurality of votes in the most recent election. These differences are due to presidents' incentives to reward core voters when local politicians are powerful and not loyal. In a decentralized system, the political benefits of federal spending accrue not just to the president, but also to local politicians. If powerful local politicians from parties different from the president's have access to resources, it is likely they will make voters believe that their parties are responsible for the investments observed. This is a real threat to the president, as he is wasting resources and by enriching his rivals. Therefore, the safer strategy for a president in a decentralized system is to target co-partisan mayors — who are most likely to be loyal to the president's interests.

My analysis of spending data for decentralized Brazil and Mexico as well as for centralized Argentina and Venezuela show the predicted pattern. Presidents spend more in municipalities with presidential core voters in Argentina and in Venezuela (centralized countries), but mostly deliver resources to municipalities with president's co-partisan mayors in Brazil and Mexico (decentralized cases). I demonstrate this by drawing on observational data, as well as in-depth interviews with current or former presidents, governors, and mayors.

The third empirical chapter investigates if voters respond to targeted spending rewarding the politician they believe is responsible for the provision of the benefits they care most about. I study how voters assign political credit for politicians when more than one officer has the legitimate authority to claim credit for outcomes observed locally. I explore, first, whether or not voters assign political credit to local politicians in a centralized federal system — regardless of who provided the outcomes observed. Second, I explore the conditions under which voters are more prone to credit national or local politicians as responsible for the outcomes they care about. My inquiry requires the analysis of individual-level data to distinguish, on one side, when local governments are able to ‘steal’ political credit for the central government’s provision of public goods, and, on the other side, when the central government is able to reap full political credit for its allocations.

I ran the same survey experiment in each of the countries investigated here: Argentina, Brazil, Mexico, and Venezuela. The results demonstrate that local governments obtain political credit for central government’s public good provision when voters believe that local politicians are credibly claiming credit for the outcomes observed. Such belief is produced when voters identify the claim as reliable information. The reason that voters believe mayors in decentralized countries are powerful and responsible for the goods provision relies on the fact that they saw, and sometimes fought for, the decentralization reforms that took place in some places. Following this well noticed process made them, at least, expect that mayors would start to have a different role, a more active one. On top of that, because decentralization actually empowered local politicians, they started to do more for the municipalities, which made voters believe in this new situation even more.

The dissertation of Felipe Nunes dos Santos is approved.

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Michael F. Thies, Committee Chair

University of California, Los Angeles

2015



*To Gabriela . . .*

*who — among so many other things — was sweet  
to teach me the real meaning of love, generous to  
give me my best gift, Dudu; and patient to make  
me believe I could do more than what I have dreamed.*

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# CHAPTER 1

## Introduction

### 1.1 The puzzle

To describe the third wave of democratization that began in 1978 in Latin America, Hagopian and Mainwaring (2005) claimed that ‘a sea change’ occurred in the politics of the region. In my view, the ocean was only serene again with the arrival of traditional opposition parties in the presidency. Before 1998, democratic transitions in Latin America should not be considered complete yet, as the first generation of presidential elections did not bring to power true opposition groups, but perpetuated the traditional elite’s control of the state. Although generals were ousted, the inheritors of military governments were politicians who either returned to the power they had before the coups took place, or were allies of the militaries. It is, therefore, the arrival of the traditional opposition parties to power that characterizes the final transition to democracy in the region (Geddes, 1999).

Presidents in Latin American democracies are powerful actors (Mainwaring, 1993; Mainwaring and Shugart, 1997*a*). They enjoy vast discretion over resource allocation (Hallerberg, Scartascini and Stein, 2009), hold sometimes formidable decree powers (Carey and Shugart, 1998), and they dominate the setting of the policy agenda (Alemán and Calvo, 2006; Amorim Neto, 2006; Raile, Pereira and Power, 2010; Shugart and Carey, 1992*b*; Baldez and Carey, 1999; Cox and Morgenstern, 2001). Therefore, it stands to reason that traditional opposition parties, eager to implement their own policies, set their sights on winning the top electoral

prize of the presidency. But Latin American presidents are not dictators. Completed transitions through presidential turnovers do not mean the end of problems for former oppositions. First, presidents must contend with national-level legislatures in which their parties almost never enjoy majority control (Shugart and Carey, 1992*a*; Mainwaring and Shugart, 1997*b*; Cheibub, 2002; Cheibub, Przeworski and Saiegh, 2004). Second, but less well-understood, presidents must contend with subnational governments - states and municipalities - that have been empowered by a wave of decentralizing reforms that has swept over Latin America over the past 30 years.

As economic decentralization evolved, the subnational shares of expenditures have increased (Manor, 1999*b*), and major public services, such as education, health, transportation and sanitation, have been transferred to localities in the set of Latin American countries (Bardhan and Mookherjee, 2006). As political decentralization matured, local governments have received enhanced constitutional responsibilities over policy and have been elected locally (Treisman, 2007), producing heterogeneous policies around the national territories of the region (Meligrana, 2005). Idealized as a solution for a remarkable range of political and social problems, such as corruption, poverty, and inefficiency (Bennett, 1990; Weingast, 1995; Tanzi, 2002), decentralization, then, implied both the devolution of responsibilities to subnational bodies, and the introduction of various kinds of local elections in Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Mexico and Venezuela.

As a consequence, voters have begun paying closer attention to local politics, and have become more aware of the necessity to hold local politicians accountable in order to ensure the delivery of public services. Politicians, in turn, have started seeing local offices as important stages for building their careers (Montero and Samuels, 2004), and are investing more time than ever to keep high influence over the localities. The combination of turnover and decentralization produced, then,

a setting in which any longtime opposition leader who finally wins the presidency almost inevitably faces dozens of commanding state governors and hundreds or even thousands of potent municipal mayors who are affiliated with traditional ruling parties. This vertical version of divided government can seriously hamper a president's ability to implement his agenda, to claim political credit for popular policy changes if they are implemented, and to mobilize voters to support himself and his party in future elections.

Presidents may have trouble changing policies as they must delegate to local brokers who may be unwilling to use their local discretion to implement presidential preferences. Then, even when presidents do manage to distribute resources to voters, they must compete with locally elected officials to claim credit for the largesse. If those officials are not co-partisans, presidents might be victims of their own success - essentially strengthening support for local opponents by disbursing resources to local voters. Finally, local office holders are not only potentially bad agents of policy implementation and potentially successful competing claimants of credit for presidential resource allocation. They are also important players in local elections for national offices. That is, governors and mayors are key local mobilizers on behalf of candidates for the national legislature and indeed for the presidency itself. Presidents wish to increase their parties' legislative strength, and also to enhance their own reelection prospects or the prospects of their chosen successors. Both causes are damaged when local offices are dominated by other parties.

So capturing the top prize of the presidency in times of decentralization, while necessary, is not sufficient for a party interested in policy change. A 'freshman' presidential party must find ways to get its policies implemented at the local level, must win the credit-claiming competition for policy changes that voters like, and must convert voter support into legislative support and enhanced presidential reelection prospects. The goal of this dissertation is, first, to examine how

‘freshman’ presidents solve the dilemma they face when they take power after historical turnovers. I will focus on the different mechanisms that explain how presidents solved their initial dilemmas, and why the solutions varied by country, by president, and by the extent of decentralization in the last 25 years.

I argue that the best solution for a newly inaugurated presidential party in a decentralized setting is to target voters where local politicians are allies. The president’s resource allocation strategy depends, therefore, on the level of decentralization in a country and on the vertical alignment between party ownership between local and national governments. Presidents wish to allocate resources to their supporters in the electorate, and in centralized countries, they can do so directly, without any interference from local politicians. In decentralized countries, however, presidents must rely on local politicians as brokers, intermediaries between themselves and voters. Accordingly, presidents target localities with co-partisan mayors, even if most voters in the municipality did not support the president in the last election in decentralized settings.

## 1.2 Political and Fiscal Decentralization

Presidents have been called the ‘centers of gravity’ in Latin American politics (Haggard and McCubbins, 2001; Shugart and Carey, 1992*b*; Mainwaring and Shugart, 1997*a*; Carey and Shugart, 1998; Samuels and Shugart, 2010; Amorim Neto, 2007). They dominate national-level decisions over expenditures in most Latin American countries. They have exclusive discretion over budget allocation, enjoy decree power, and appoint cabinet members responsible for economical decisions.

But Latin America was one of the first regions of the world to systematically implement decentralization policies (Camdessus, 1999). Between 1970 and 2000, countries in the region set a series of policies, electoral reforms, or constitutional amendments that transferred responsibilities, resources, or authority from central

to local levels of government (Willis, da C B Garman and Haggard, 1999). Almost all countries in the region undertook (a) significant increases in the devolution of revenues and expenditures, (b) the transfer of public service responsibilities from central to local governments, and (c) the direct election of local politicians to govern municipalities and states.

So, decentralization has proceeded to different degrees around the region since the 1970s. The importance of such decentralization for national policy making became apparent after the inauguration of traditional opposition parties' governments. As I will describe in the next section, in one country after another, traditional opposition parties finally secured the top prize, the presidency, after decades, only to find that control over the presidency alone was not sufficient to implement the changes they were aiming for. Before these partisan turnovers at the national level, Latin American governments were 'vertically unified,' with a single party or coalition in charge locally and nationally. So, decentralization did not result in agency or coordination problems for these administrations. It was the arrival of 'vertically divided governments' after presidential turnovers in the 2000s that changed the importance of decentralization in the region.

### **1.3 Presidential Turnovers and Their Consequences**

As pointed out by Dix (1984), in the democratic countries of Latin America the parties in power used to find it extremely difficult to win the election following their ascent to power, or even to avoid a decrease of their share of the vote. Although turnovers were frequent in the region after redemocratization, *de facto* partisan shifts were only observed in the beginning of the 21<sup>st</sup> century. In the first years after redemocratization, the political parties controlling the presidency were either inheritors of the authoritarian regime alliances, or groups that were not opposition to the regime at all. It is only with the ascendancy of left political

parties with political agendas ideologically different from the ones carried out by the traditional ruling parties that turnovers should be taken as indeed in place.<sup>1</sup>

**Table 1.1:** *Presidential Turnovers in Latin America*

Country	Party	President	Election	Ideological Shift
Venezuela	MVR / PSUV	Hugo Chavez	1998	Center - Left
Chile	Partido Socialista	Ricardo Lagos	2000	Right - Left
Mexico	PAN	Vicente Fox	2000	Center - Right
Brazil	PT	Lula da Silva	2002	Center - Left
Argentina	PJ	Nestor Kirchner	2003	Center - Left
Uruguay	FA	Tabare Vazquez	2004	Right - Left
Bolivia	MAS	Evo Morales	2005	Right - Left
Ecuador	Allianza	Rafael Correa	2006	Right - Left

Source: Levitsky and Roberts (2011)

The first major ideological shift in a Latin American presidential election occurred in 1998 when Hugo Chavez, a former coup leader, was elected president of Venezuela. He was followed in 2000 by Ricardo Lagos in Chile and Vicente Fox in Mexico. Brazil was the next to see the emergence of an opposition left party. *Partido dos Trabalhadores* (PT) arrived in the presidency through the leadership of Luis Inacio Lula da Silva. Then, the Peronist Nestor Kirchner won the presidency of Argentina in 2003, followed by Evo Morales of Bolivia in 2005, and Rafael Correa of Ecuador in 2006 (see Table 1.1). The rise of these alternatives was associated with a broadening of social and economic policy options in Latin America. Unlike the 1980s and the 1990s, when candidates often campaigned for office on vaguely reformist platforms but governed as before (Stokes, 2002), the post-1998

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<sup>1</sup>Mexico's Vicente Fox is the only exception, as his electoral victory marked the first turnover toward a conservative party in Latin America (Greene, 2008).

wave of freshman presidents' victories - most by the left - accompany a new era of policy experimentation in which governments expanded their developmental, redistributive, and social welfare roles. That means freshman governments changed not only who governed Latin Americans, but also how they pursued such changes.

Although such turnovers produced large reordering at the central level of government, historical political machines were still in place in the lower levels of government. In other words, elected presidents did not have a range of allies to give them political and electoral support. In Brazil, Lula's party governed less than 3% of the municipalities (or 18% of the population) in 2002. In Venezuela, Chavez's party governed less than 18% of the municipalities (or 24% of voters). In Mexico, Fox's party controlled 27% of the municipalities in 2000, which represented 35% of the total population. In Argentina, the presidential situation was a little bit better, as Kirchner's party had the support of roughly 40% of municipalities in 2003 (45% of the population). Below I present a brief description of the country cases I will investigate and map presidential vote share *versus* local penetration of their parties in the first year of their terms. As the reader will have chance to see, the maps show how critical was the freshman presidents' situation in Argentina, Brazil, Mexico, and Venezuela.

## **1.4 Vertically Divided Governments**

### **1.4.1 Evidence From Brazil**

Brazil is a federation composed of 26 states and 1 federal district. States are represented proportionally in the national Chamber of Deputies as multi-member districts with magnitude varying from 8 to 70. Deputies are elected by an open-list proportional representation system. Governors, mayors and the president are



elected via majority-runoff rule,<sup>2</sup> and can serve no more than two consecutive four-year terms. Legislators do not have term limits. Public policies are mainly decided at the federal level, but they are managed and implemented in the 5,564 municipalities. A gradual increase in municipal decentralization and autonomy was crystallized in the 1988 Constitution, which formally established the legal status of municipalities as federal entities. Municipalities are responsible for the protection of historical and cultural patrimony, the parcelling of land, and the organization and provision of public services of local interest (particularly systems of public transportation).

The provision of pre-school and primary education and health services are also the responsibility of municipalities, though these count on the technical and financial cooperation of the state and the national government. Brazilian municipalities are currently considered among the most decentralized and autonomous subnational units below the state level in all Latin America (Nickson, 1995) and enjoy substantial policy responsibilities. Brazilian mayors are thus politically important in their own right, as they are responsible for executing policies (Samuels, 2002, 2003). Governors are also important and powerful players in Brazilian politics, though Borges (2011) presents evidence that state political machines have lost power in the recent years.

Brazil's party system has long been considered weak (Mainwaring and Zoco, 2007; Mainwaring and Shugart, 1997*b*; Mainwaring, 1993; Roberts and Wibbels, 1999; Mainwaring, 1998). Legislative elections are marked by high levels of electoral volatility Peres, Ricci and Renno (2011), voters are not ideologically attached to any party (Seligson, 2007), and politicians switch parties frequently (Desposato, 2006; Melo, 2004). More than 25 parties are represented in the Chamber of Deputies. Along with the PT, the PSDB and the PMDB (*Partido do Movimento*

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<sup>2</sup>When the population is smaller than 200,000, the election is decided by plurality with no run-offs.

*Democrático Brasileiro* are the most important; the DEM, PSB, PTB, and PDT also play significant roles.

The institutional and political context described above makes it difficult for the president to pass a policy agenda in a legislature where his party typically controls less than 20 percent of the seats. Figure 1.1 illustrates the weakness of the PT's national coverage in 2002. The top map shows whether the plurality of voters in a municipality voted for the PT candidate, Lula (red), or the PSDB candidate, Serra (blue) in the 2002 presidential election.<sup>3</sup> The lower map depicts whether the mayor at this time was from the PT (red), from a party allied with Lula in the legislature (yellow)<sup>4</sup> or a party opposed to Lula (blue).<sup>5</sup> Note the difference in the amount of red in the two maps. Half of Lula's electoral support came from municipalities governed by opposition mayors. The other half is divided between mayors from Lula's coalition or from PT.

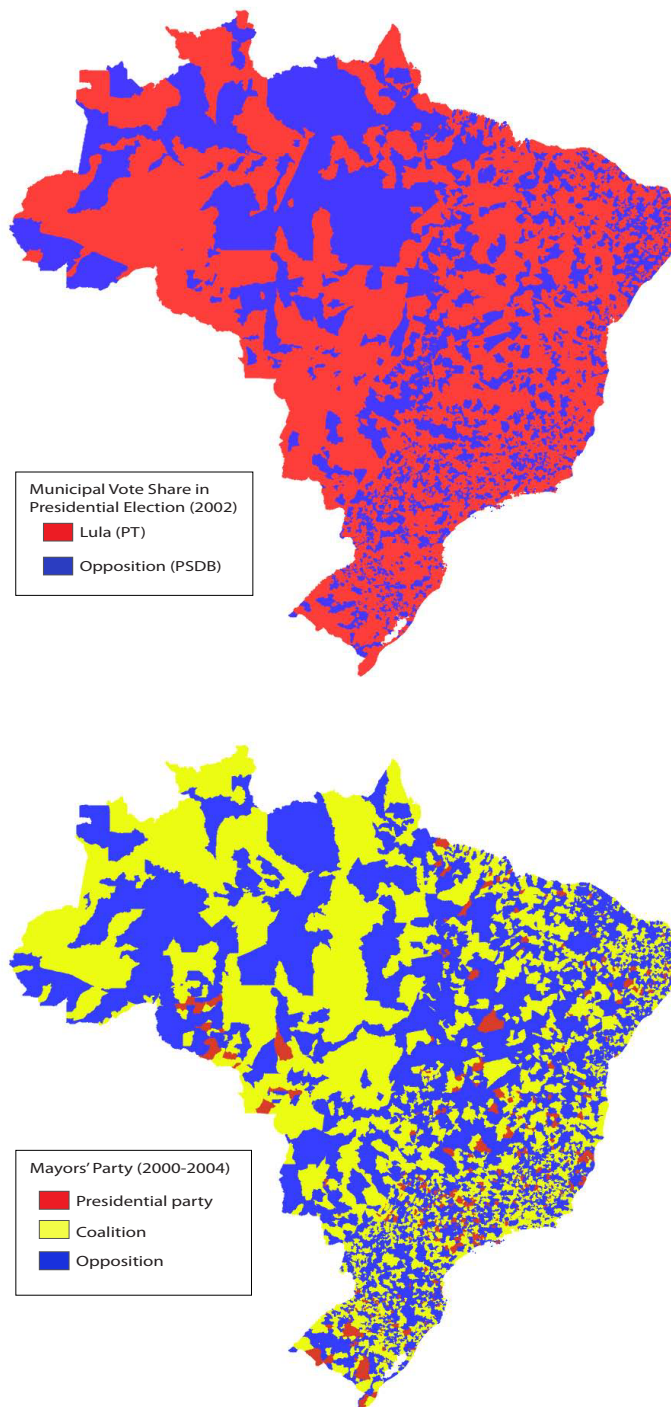
Figure 1.1 shows that the PT at the beginning of Lula's presidency was clearly in need of better national coverage. The descriptive information presented so far leads us to believe that Lula faced a very extreme dilemma. Having to decide on the distribution of resources for municipalities Lula seemed to be faced with a challenging task when managing his distributive decisions. Given the influence of congressional parties on the legislative success of presidents (Amorim Neto, 2002; Limongi, 2006), the costs of building and maintaining a heterogeneous coalition (Pereira and Mueller, 2004; Raile, Pereira and Power, 2010), and the small size of PT when Lula got elected (Zucco and Samuels, 2011), Brazilian municipalities provide a great opportunity to assess the presidential strategies to allocate when local agents are missing.

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<sup>3</sup>Brazilian presidents are elected by a majoritarian run-off system; votes are not aggregated by any kind of electoral college-like system. Each vote counts equally. I colored municipalities based on the 50% threshold only to facilitate comparison with the outcomes in mayoral elections.

<sup>4</sup>PMDB, PSB, PDT, PC do B, PV, PL, or PTB.

<sup>5</sup>PSDB, PFL, PSC, PP, PHS, PST, PRP, PMN, PAN, PRN, PRTB, PSDC, PSL, or PTN.



**Figure 1.1:** *In the top, map shows support for Lula in the 2002 presidential election.  
In the bottom, map shows mayors' party affiliation in 2002.*

### 1.4.2 Evidence From Mexico

Mexico is also a federation with 31 states and the Federal District (Mexico City). The country has a presidential system with three main parties, PAN, PRD, and PRI. The president is elected by plurality vote for a six-year term and, unlike other Latin America systems, there is no second round. The Chamber of Deputies has 500 members, elected for a three-year term; 300 elected by simple majority in single-member districts, and 200 elected by proportional representation in five 40-member regional districts. Re-election for consecutive terms is prohibited for the president and for all federal deputies and senators. Legislators can be elected to the other chamber when their term expires, and they can be re-elected to the same chamber after sitting out a term.

Each state elects its own governor and legislature; municipal authorities are chosen at the local level. The election dates are established by state legislation. Ten State and local elections take place on the same date as the federal election.<sup>6</sup> States are divided into 2438 municipalities, which elect their own representatives. Each municipality is administratively autonomous; citizens elect a mayor (*presidente municipal*) responsible for providing all the public services for their constituents. North-western and south-eastern states are divided into small numbers of large municipalities (e.g. Baja California is divided into only five municipalities). Central and southern states, on the other hand, are divided into a large number of small municipalities (e.g. Oaxaca is divided into 570 municipalities).

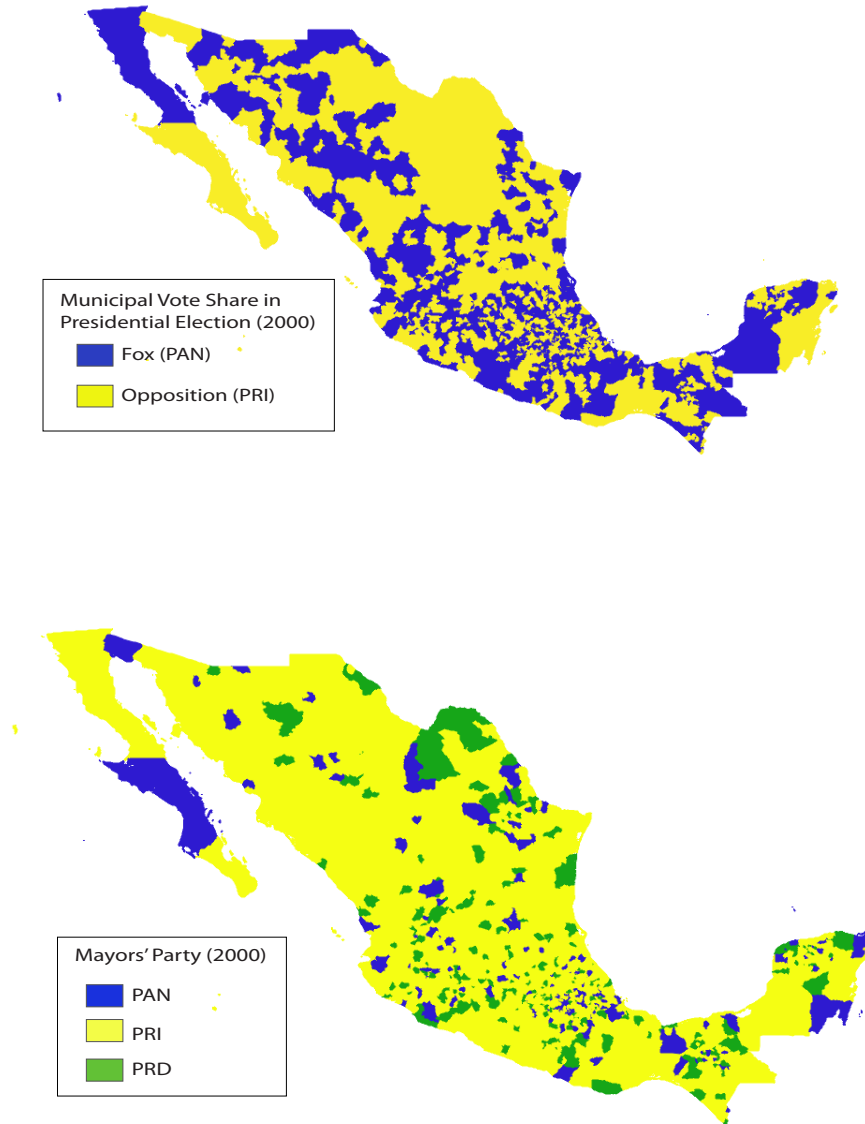
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<sup>6</sup>In the States of Guanajuato, Jalisco, and Morelos for Governors, State legislatures, and municipal authorities; in the Federal District (Mexico City) for the Chief of Government, the members of the Legislative Assembly and the Chiefs of Delegations (local authorities); in the States of Campeche, Colima, Nuevo Leon, Queretaro, and Sonora for State legislatures and municipal authorities (but no Governors); in the State of San Luis Potosi members of the State legislature will be elected, and legislation has just been passed in order to also hold municipal elections on the same date.

Municipalities are responsible for public services (such as water and sewerage), street lighting, public safety, traffic, supervision of slaughterhouses and the cleaning and maintenance of public parks, gardens and cemeteries. They may also assist the state and federal governments in education, emergency fire and medical services, environmental protection and maintenance of monuments and historical landmarks. Since 1983, they can collect property taxes and user fees, although more funds are obtained from the state and federal governments than from their own collection efforts. In that sense, as in Brazil, the system is decentralized in terms of implementation of policies and services, but the allocation of resources depends on presidential and gubernatorial discretion.

Mexico's party system has long been dominated by PRI and its moderate form of authoritarian regime (Magaloni, Diaz-Cayeros and Estevez, 2007; Armesto, 2009; Fox, 1994*a*; Magaloni, 2006; Greene, 2007). From 1929 until the early 1980s, the PRI's position in the Mexican political system was hegemonic, with opposition parties posing little or no threat to its power base or its near monopoly of public office. This situation changed during the mid-1980s, as opposition parties of the left and right began to seriously challenge PRI candidates for local, state, and national-level offices.

The institutional and political context described above is different from the Brazilian, as PRI has always managed to control the entire system. After 2000, with the victory of PAN, President Vicente Fox had to deal with this historical trend of domination, and had difficulty changing policy in a country where his party typically controlled 17% percent of the municipal governments responsible for implementing the federal policies. Figure 1.2 illustrates the weakness of the PAN's national coverage in 2000, right after the historical turnover that took PRI out of power. The top map shows whether the majority of voters in a municipality voted for the PAN (blue) or the PRI (yellow) in the 2000 presidential election. The lower map depicts whether the mayor at this time was from the PAN (blue),



**Figure 1.2:** *In the top, map shows support for Fox in the 2000 presidential election. In the bottom, map shows mayors' party affiliation in 2000.*

from PRI (yellow), or from PRD (green). Note the difference in the amount of blue in the two maps.  $2/3$  of Fox's electoral support came from municipalities governed by opposition mayors from PRI. The other  $1/3$  is divided between PRD and PAN.

According to official electoral results, among municipalities governed by PRI, only 12% voted for Vicente Fox in the presidential election of 2000. The dilemma was even larger in municipalities governed by PRD, where roughly 1/3 of voters chose to vote for Fox. In sum, Figure 1.2 shows that the PAN at the beginning of Fox's presidency was clearly in need of a broader national support base. Although the extent of decentralization in Mexico was lower than in Brazil, Fox had to deal with a much more complicated problem than Lula. Even after 10 years out of the national office, the PRI was still a powerful local player in Mexico. Fox's electoral support across municipalities was not as spread as in the case of Lula.

### **1.4.3 Evidence From Argentina**

Argentina is a federation of 23 provinces and 2,112 municipalities (1998) including the capital, a separate entity termed Autonomous City. Under the current constitution (last reformed in 1994), the President is the head of state and government and the Congress is bicameral. The President and the Vice-President are elected in one ballot, for a four-year term, by direct popular vote, using a runoff voting system: there must be a second round if no formula gets more than 45% of the affirmative valid votes, or more than 40% of the affirmative valid votes with a difference of 10 percentage points from the second formula, in quantity of affirmative valid votes. Before the 1995 election, the President and Vice-President were both elected by an electoral college.

The National Congress (Congreso Nacional) has two chambers. The Chamber of Deputies of the Nation (Cámara de Diputados de la Nación) has 257 members, elected for a four-year term in each electoral district (23 Provinces and the Autonomous city of Buenos Aires) by proportional representation using the D'Hondt method, with half of the seats renewed every two years in all districts. The Senate of the Nation (Senado de la Nación) has 72 members, elected for a six-year term in three-seat constituencies (23 provinces and the Autonomous city of Buenos Aires)

for a six-year term, with two seats awarded to the largest party or coalition and one seat to the second largest party or coalition. One-third of the constituencies are renewed every two years. In 2001 the whole senate was renewed. There is a quota law that sets that at least a third of the candidates for legislative elections must be women. The most dominant parties in Argentina include the popular names of Radical Civic Union (UCR) and the Justicialist party (PJ). There are also numerous small parties that are elected in their respective limited areas.

Mayors are elected for four years; and they can be reelected once. Constitutional reforms in 1994 enshrined the principle of municipal autonomy, but without guaranteeing *de facto* power to many municipalities (the exception here is Buenos Aires). Municipalities generally have few powers and little financial muscle. They are usually responsible for defining land use, zoning, regulating pollution, waste collection, urban hygiene, lighting, street maintenance and sewage. They have tended to suffer from a lack of financial resources. Although they have two sources of income, including user fees, they rely mostly on transfers from provincial governments. The most important office is the mayor of Buenos Aires, the capital and largest city of Argentina. Following the 1994 reform of the Argentine Constitution, the city gained autonomous status. Since 1996, the Chiefs of Government (Jefes de Gobierno) of the city are directly elected by the citizenry.

The inauguration of the ‘Kirchnerismo’<sup>7</sup> did not follow historical patterns in Argentine elections. In 2003, for the first time since the return of democracy in 1983, the Justicialist Party (PJ) failed to agree on a single presidential candidate. Three credible Peronist candidates ran in the election: center-right former President Carlos Menem, center-left Santa Cruz Province Governor Nestor Kirchner, and centrist San Luis Province Governor Adolfo Rodríguez Sa. None was officially supported by the party, though President Eduardo Duhalde publicly en-

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<sup>7</sup>This is the name given to the political movement inaugurated after the election of Nestor Kirchner for the presidency of Argentina.



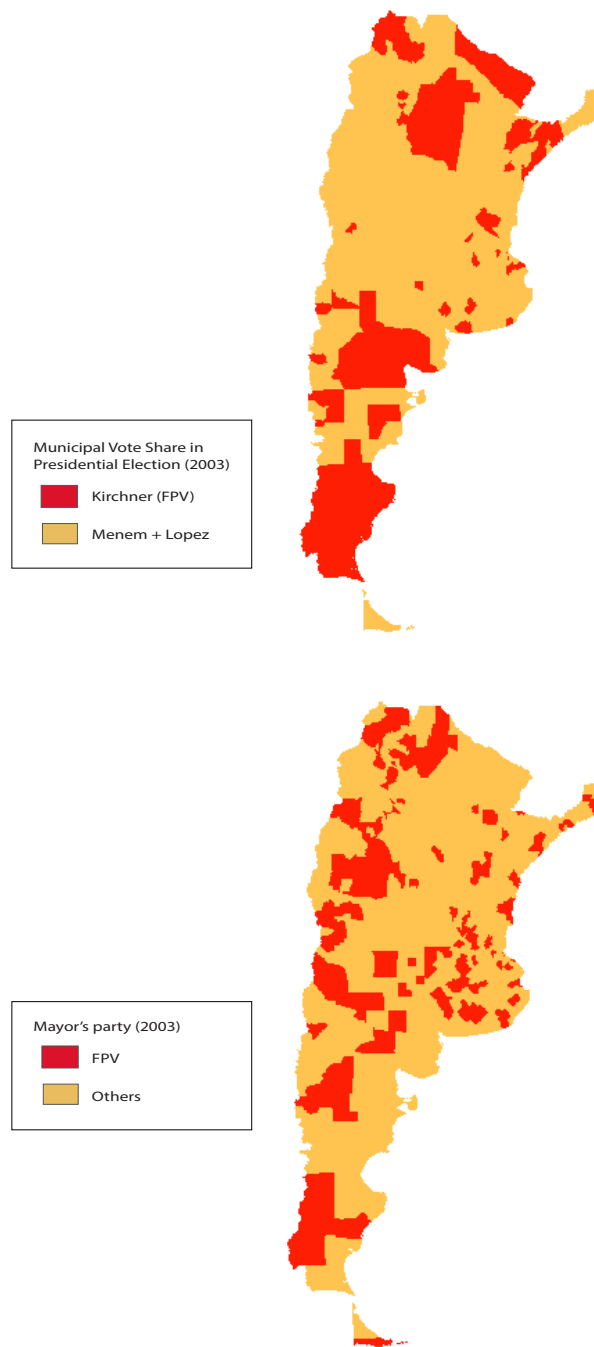
dorsed Governor Kirchner on January 15, 2003. The PJ suspended its January 24 convention, opting to allow the three contenders to run on the Peronist mantle. None of the candidates was allowed to use the traditional Peronist iconography in detriment of the others. Also, for the first time since 1916, the UCR did not field a presidential candidate. After the political collapse at the peak of the economic crisis that led to the resignation of President Fernando de la Rúa at the end of 2001, popular support for the UCR was at historically low levels. Two strong former members of the UCR founded parties based on their politics: Congresswoman Elisa Carrió founded a left-of-center party, the ARI, and economist Ricardo López Murphy founded a right-wing one, Recrear.

These five strong candidates were practically tied in all of the pre-election polls. Menem obtained the most votes in the first round, but fell far short of a first-round victory (about 25%), so a runoff election against Kirchner was required, and was scheduled for May 18. After two terms in office from 1989 to 1999, Menem's popularity remained very low. With polls showing Kirchner headed for a landslide victory (anywhere from a 35 to a 50% margin), Menem withdrew from the runoff on May 14, and Nestor Kirchner immediately became the president-elect. This situation led the president to be elected without a majority of votes (see Figure 1.3). Moreover, because of the many cleavages inside the Peronismo, Kirchner's faction, called Frente por la Victoria, did not managed to have the support of the majority of mayors as well.

Although mayors are dependent on provinces and on presidential resources to implement policies, having them as political allies is important for electoral mobilization and for legitimacy inside the 'peronismo'<sup>8</sup>. The parties are so fragmented, the possibility of having regional parties and candidates not vertically aligned cre-

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<sup>8</sup>This is an Argentine political movement based on the legacy of former President Juan Domingo Pern and his second wife, Eva Pern. The party, Partido Justicialista, derived its name from the Spanish words for 'social justice' (justicia social).



**Figure 1.3:** *In the top, map shows support for Kirschner in the 2003 presidential election. In the bottom, map shows mayors' party affiliation in 2003.*

ate an extra challenge for the president. In the case of Kirchner, this was not as extreme as it could be. Figure 1.3 illustrates that the alignment between votes and mayors was large enough for a president in this situation. The top map shows whether the majority of voters in a municipality voted for him in the first round of the 2003 election. The lower map depicts whether the mayor at this time was from his faction (red) or from other parties or factions (orange). Kirchner was able to attract 40% of elected mayors for his coalition in 2004. And among the places where he had the majority of votes, 60% were governed by an ally. Argentina is the country where the presidential dilemma was the lowest, although it still existed, particularly because of Buenos Aires, where Kirchner managed to win votes, but did not to win the mayoral election.

#### **1.4.4 Evidence From Venezuela**

Venezuela is a federal presidential republic consisting of 23 states, the Capital District (covering Caracas), and federal dependencies (covering Venezuela's offshore islands). Venezuela is subdivided into 335 municipalities (municipios), and these are further subdivided into over one thousand parishes (parroquias). The states are grouped into nine administrative regions (regiones administrativas), which were established in 1969 by presidential decree.

The Venezuelan president is elected by direct vote and has a term of six years, and (as of 15 February 2009) a president may be re-elected an unlimited number of times. The president appoints the vice president and decides the size and composition of the cabinet and makes appointments to it with the involvement of the legislature.

The unicameral Venezuelan parliament is the 'Asamblea Nacional'. The number of members is variable — each state and the Capital district elect three representatives plus the result of dividing the state population by 1.1% of the

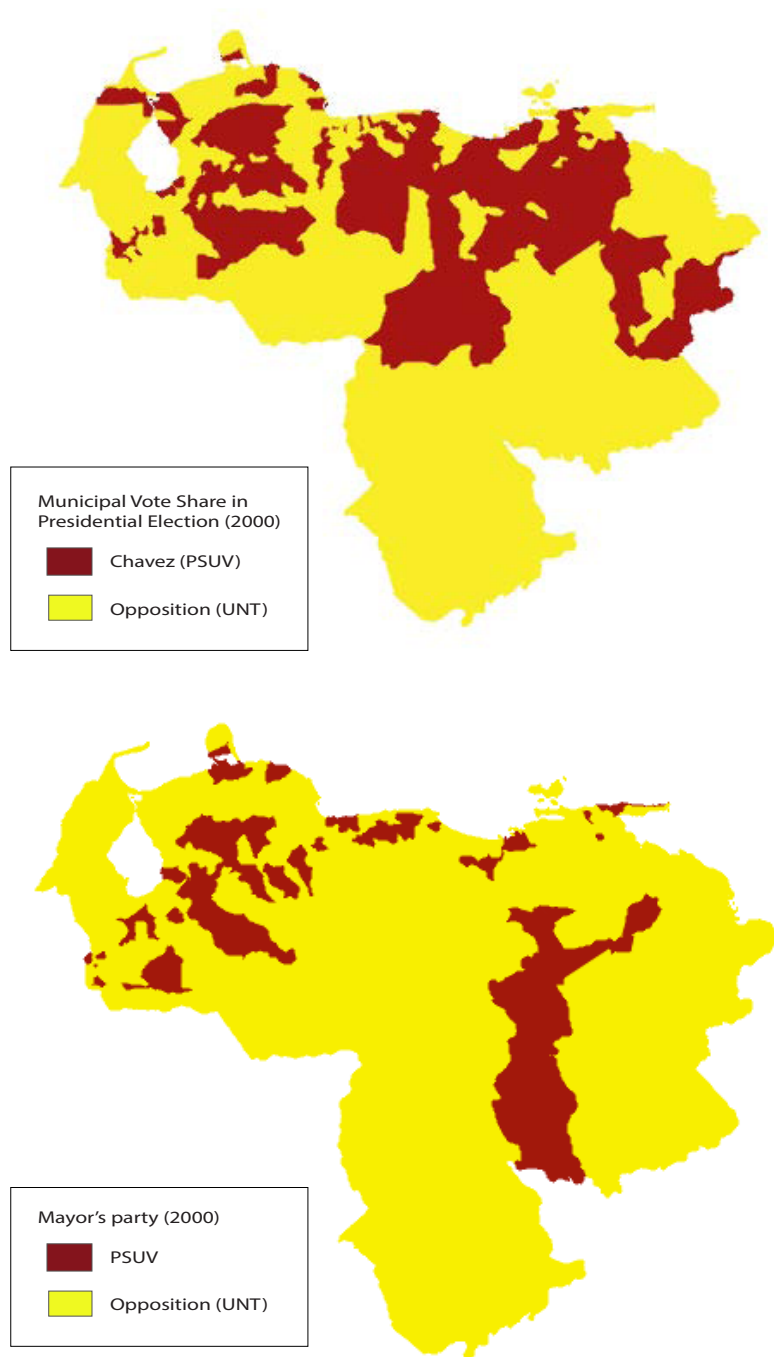
total population of the country. Three seats are reserved for representatives of Venezuela's indigenous peoples. For the 2011-2016 period the number of seats is 165. All deputies serve five-year terms.

Municipal elections have been held since 2000. Mayors and local councilors are elected for the country's 335 municipalities, as well as the metropolitan mayors of Caracas and Alto Apure. Mayors serve four-year terms and may be re-elected up to three times. Mayors do not have legal authority over many policies and public service provision. If the central government commands, it can strip their powers. The moves can include taking away responsibilities, including the management of parks, theaters and other cultural centers, and the removal of assets from local authorities.

A collapse in confidence in the existing parties saw the 1998 election of Hugo Chavez, who had led the first of the 1992 coup attempts, and the launch of a "Bolivarian Revolution", beginning with a 1999 Constituent Assembly to write a new Constitution of Venezuela. The opposition's attempts to unseat Chavez included the 2002 Venezuelan coup d'état attempt, the Venezuelan general strike of 2002-2003, and the Venezuelan recall referendum, 2004, all of which failed. Chavez was re-elected in December 2006, but suffered a significant defeat in 2007 with the narrow rejection of the Venezuelan constitutional referendum, 2007, which had offered two packages of constitutional reforms aimed at deepening the Bolivarian Revolution.

Two major blocs of political parties compete in Venezuela: the incumbent leftist bloc United Socialist Party of Venezuela (PSUV), its major allies Fatherland for All (PPT) and the Communist Party of Venezuela (PCV), and the opposition bloc grouped into the electoral coalition Mesa de la Unidad Democrática. This includes A New Era (UNT) together with allied parties Project Venezuela, Justice First, Movement for Socialism (MAS) and others.

The institutional and political context described above makes it easy for the



**Figure 1.4:** *In the top, map shows support for Chavez in the 2000 presidential election. In the bottom, map shows mayors' party affiliation in 2000.*

president to pass legislation and to implement policies. But this was not always like that. In the beginning of Chavez administration in 2000 he did not have the majority in the National Assembly, nor the majority of mayors. Figure 1.4 illustrates this vertical division in 2000. The top map shows whether the majority of voters in a municipality voted for Chavez (red), or the opposition candidate (yellow) in the 2000 presidential election. The lower map depicts whether the mayor at this time was from the PSUV (red), or a party opposed to Chavez (yellow). Note the difference in the amount of red in the two maps. Most of Chavez votes came from municipalities governed by opposition mayors. More importantly, Chavez did not have the support of most of the people living in the Metropolitan area of Caracas, nor of the mayors winning the elections there.

## 1.5 The Presidential Dilemma

The combination of presidential turnovers and decentralization produced an interesting puzzle for newcomer presidents in Latin America. On the one hand, Latin American presidents enjoy great discretion over targeted spending decisions (Hallerberg, Scartascini and Stein, 2009). Such resources could, then, be geographically targeted to promote policy goals (Treisman, 1996; Besley et al., 2003; Evans, 2006), and to promote voter support for the president's party in national elections (Ames, 2001; Pereira and Mueller, 2004; Amorim Neto, 2006). On the other hand, given the processes of decentralization in these countries, local politicians could not be relied on to be good agents who would cooperate with the implementation of presidential agendas, give presidents credit for the public goods allocated, or mobilize voters to support presidential re-election efforts.

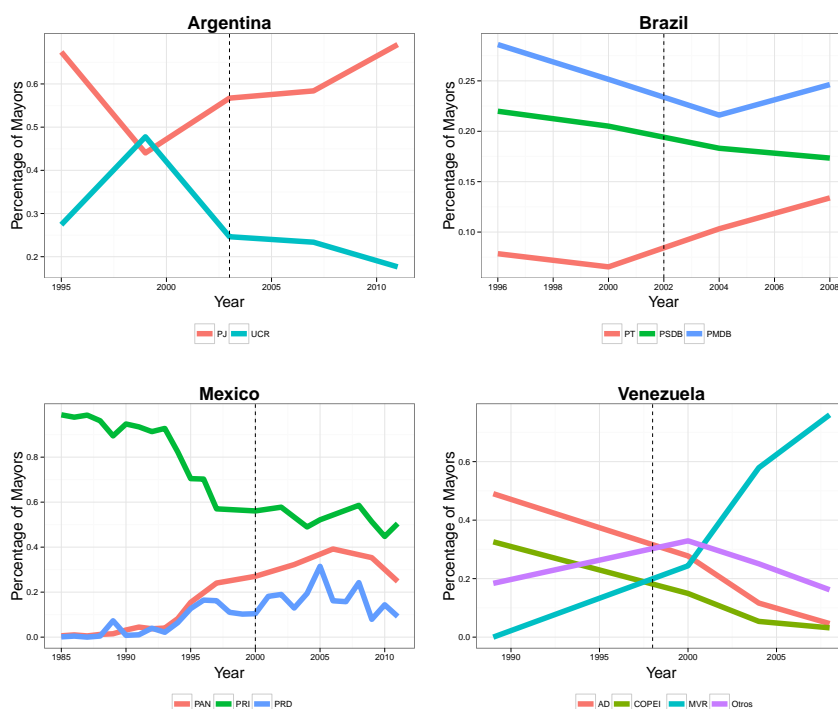
Thus, although the president enjoyed budgetary power, his allocation strategy needed to take into consideration the risks of agency loss. To the extent that voters respond to targeted spending, a president can use budgetary discretion to gain

votes for himself. But federal transfer spending also improves re-election odds for incumbent mayors in targeted municipalities, especially in a decentralized setting. The political benefits of transfer spending thus accrue not just to the president, but also to an array of local politicians who may or may not share the president's party and political goals.

This creates a dilemma: by targeting his own core voters and pursuing social policy goals, the president may be supporting the reelection goals of his political enemies at the local level. This dilemma looms larger in decentralized systems, when the scope of the president's party is narrow at the municipal level. In other words, when a president and local mayors are from different parties, and mayors have autonomy to manage and implement public services and goods, the president faces a trade-off between (1) meeting core voter expectations on outcomes while providing resources to opponents who could threaten his power; or (2) only allocating resources to towns run by co-partisan mayors, while excluding the majority of his supporters from receiving benefits.

In the cases of Argentina, Brazil, Mexico, and Venezuela at the starts of the Kirchner, Lula, Fox, and Chavez governments, respectively, we observe a critical detachment between the presidential electoral support, and the presidential party's local electoral support. Consequentially, presidents elected with the majority of votes faced a new situation, in which their personal electoral support had not translated into party support. This is the basis of what I call the 'presidential dilemma'. Below I present preliminary evidence showing the conditions under which the president responds by using the budgetary tools he has to 'nationalize' his party down to the municipal level and across as many municipalities as possible.

Figure 1.5 shows the percentage of mayorships held by the most important political parties present in both levels of government in Argentina, Brazil, Mexico and Venezuela. The dashed vertical lines indicate the year of partisan turnover



**Figure 1.5:** *Party nationalization in Argentina, Brazil, Mexico and Venezuela*

in the presidency for each country. In Argentina, PJ is going national, which is also what we see in Brazil for the case of PT, in Mexico for the case of PAN, and in Venezuela for the MVR/PSUV. PT starts its nationalization after 2000, and by 2008 it controlled 15% of the localities. PJ has always controlled more than 50% of the municipalities; the exception was the big loss it suffered in 2000. PAN has been growing at the local level since 1995, but it achieved its largest coverage ten years later, in 2005. The *bolivarian* movement led by Chavez had a national jump after 2000, when its leader was in power. The plots in Figure 1.5 show that the presidential party tends to increase its share of mayorships during its term, regardless of the degree of decentralization. Lula produced a bigger local PT, Fox produced a larger local PAN, Kirchner saw the PJ nationalizing during his term, and the same happened for MVR in Venezuela under Chavez.



## 1.6 A Distributive Theory of Sub-national Agency Control

The literature on distributive politics has engaged in a spirited debate about how political parties allocate targetable goods - such as private goods targeted to individuals, local public goods targeted to geographic areas, or tax breaks targeted to specific industries or firms - in order to optimize their electoral prospects. Among the most influential papers in this field, Dixit and Londregan (1996) show that when parties have no special relationship with any group, their allocations are driven by the density of swing voters in each constituency group - as in the Lindbeck and Weibull (1987) model. As larger and larger asymmetries in the parties' abilities to deliver benefits arise, however, the parties' allocations are driven more and more by the core voter logic of promising benefits to those groups to which the party can most effectively deliver benefits - as in the Cox and McCubbins (1986) model. The logic behind this model depends solely on the preferences and behavior of local voters. Although influential in comparative politics, I do not believe these models should be transported *verbatim* to understand cases different than the U.S.<sup>9</sup>

The main limitation of such literature has to do with the fact that it has ignored the role of brokers in multi-tier systems. Politics in federal countries, for example, is tied to multiple and legitimate governments of presidents, governors, and mayors. The distribution of resources, then, needs to take into account that

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<sup>9</sup>First, this approach applies properly to single member districts, like the U.S., where it is easier to hold politicians accountable because of its single-member district electoral system, where voting is not mandatory (so mobilization matters as well as persuasion), and losers may receive large proportions of votes (Stokes, 2005; Nichter, 2008; Dahlberg and Johansson, 2004; Calvo and Murillo, 2004). Second, this literature is built on the assumption that voters have ideological positions, but there is little support in the literature for the notion that Latin American voters weigh their welfare using ideology as the main reference (Kinzo, 1993).

all such players have inter-connected interests in benefitting from investments, and also in blaming oppositions for bad performance. The main theoretical contribution of my work is adding to this literature the complicating factor of how brokers operate in federal systems in which devolution has taken places in varying degrees. The main models listed above assume away the problems of agency loss and credit-claiming competition as they model the direct connection between voters and politicians. In my work, I will consider the interaction of two types of politicians with legitimacy to (a) dispute credit for public goods provision, and to (b) act independently given different levels of political and economical decentralization. In my model, however, neither group of politicians operates in a vacuum; there are voters interested in welfare improvements observing their interactions, trying to clarify responsibilities, and trying to hold both levels of office holders accountable.

## **1.7 Research Design and Layout of the Dissertation**

This final section describes how I plan to test the explanatory power of my argument. I divide the empirical portion of my dissertation into three chapters to make it clear which parts of the theory I am proposing to explain with which tests. I explain the type of quantitative and qualitative tests I plan to perform, and how I will operationalize my variables, as well as where and how I plan to find the evidence required to test them.

I will employ a multi-method strategy to test the observable implications of my theory. Individual-level analysis of observational and experimental survey data will allow me to uncover the effects of decentralization on voters' identification with local politicians, and to test the underlying causal relationship that connects them. First, using cross-sectional electoral data, I will test the claim that decentralization plays an important role in producing strong or weak local

politicians. I will show how local politicians in decentralized settings are much more powerful in mobilizing voters than local politicians in centralized systems. In other words, I will show that a president who has strong local co-partisan politicians attached to him in decentralized systems tends to receive more electoral support from those districts in the next race than he does from districts with opposition mayors, other things equal. Second, through longitudinal data analysis within and between countries I will test the presidential allocative strategies in different decentralization contexts. A original Bayesian model will be employed to understand who receives more discretionary resources and why. I will show that presidents privilege towns with co-partisan mayors in decentralized systems, but towns with core partisan voters in centralized countries. Third, I test the mechanisms of my theory using experimental survey evidence. I demonstrate that voters in decentralized settings actually identify mayors as the most reliable providers of goods, whereas presidents are the ones who voters belief to be real providers of local investments in centralized systems.

## CHAPTER 2

# Are Mayors Stronger in Decentralized Systems? Election Outcomes and Decentralization

### 2.1 Introduction

In the 1980s and 1990s, decentralization reforms swept across Latin America as almost every country implemented measures to strengthen the role of local and regional governments. This was hardly an isolated trend, however. Countries as distinct as South Africa, France, and the Philippines undertook similar processes during this period (Lee and Gilbert, 1999; Manor, 1999*a*; Oxhorn, Tulchin and Selee, 2004). According to one estimate, 63 out of the 75 countries with a population over 5 million have implemented a major process of decentralization since 1980. Proponents of decentralization in Latin America and elsewhere, who have been drawn from all places on the ideological spectrum, have argued that strengthening local and regional governments would both improve the efficiency of government and contribute to better democratic governance. What such proponents could not have expected, however, was a deeper transformation in the relationship between national and subnational governments as soon as these reforms were implemented.

This chapter assesses the claim that decentralization increases the political influence of local politicians in national politics. I define 'strong' local politicians as being influential, powerful, and threats to other politicians. If local officers become more autonomous in deciding how resources are allocated in their districts, I should also expect them to have a bigger impact in the political life of

such localities. This should be true if the theories of decentralization are correct, assuming that if an outcome is observed, and that a) voters choose retrospectively, and b) there is no disagreement about who is responsible for the outcome, then voters should reward local politicians in decentralized settings. In centralized systems, however, voters are more likely to associate improvements and benefits with presidents. The main implication of this idea is that the future of national politicians might become highly correlated with the preferences and behavior of local politicians. Within this chapter, the critical implication derived from the theories of decentralization is applied to a particular set of Latin American countries: Argentina, Brazil, Mexico, and Venezuela. Their different paces and degrees of political, administrative and fiscal decentralization will allow us to determine how much influence over electoral outcomes mayors gain after decentralization reforms.

I seek to assess the conditions under which decentralization makes local officials important players in producing positive electoral returns to national politicians. In other words, my goal is to present evidence for the magnitude of the effect of co-partisans and allies in local offices over voter turnout, as well as party and presidential vote share in the following electoral cycles. I want to show how local politicians in decentralized settings are much more powerful in mobilizing voters than local politicians in centralized systems. To pursue that, I present cross-section electoral evidence that presidents in decentralized systems tend to win more votes in the next electoral cycle in towns with co-partisan mayors than in towns without co-partisan mayors. I collected national and sub-national electoral results for executive and legislative elections in a range of at least two electoral cycles. My empirical strategy mimics the empirical estimations for American politics that predict national electoral outcomes based on economic conditions of voters' settings. This identification strategy will involve the specification of how many more votes a president gets as a function of having a co-partisan governing

a municipality or a state.

I predict that a president will obtain a higher level of voter support for himself and his party when local officials act as good agents and are identified by voters as legitimate providers of benefits. Legitimation will occur under two circumstances: first, in politically and fiscally decentralized systems; and second, when a president in a centralized system declares local politicians to be authorized to act in his name. In this chapter I evaluate the viability of the first condition. Local politicians will act as good agents when mayoral electoral returns are a function of such loyal agency. Therefore, presidents will benefit from local intervention when the system is decentralized, when they provide resources to mayors, and when mayors' electoral prospects are improved by presidential prestige and popularity.

I argue that local politicians are the most effective campaigners for or against any national politician in decentralized settings. My best guess is that voters will support presidential allies in legislative and executive elections when mayors mobilize voters on behalf of the president's party. When mayors obtain local legitimacy and access to resources from the central government, they will be able to transfer their electoral support to presidential allies in non-concurrent elections. This happens because voters trust in local politicians when they believe they are loyal agents. My expectation is that local governments will produce more electoral externalities in decentralized systems, but especially when voters observe improvements in their welfare and attribute such benefits to the vertical link between local and national politicians. By contrast, local governments will fail to produce electoral externalities to national allies when they do not have access to resources, cannot claim credit for any outcome observed, or do not have authorization to act in their name.

This chapter is organized as follows: in the first and second sections I describe the history of centralization in Argentina, Brazil, Mexico, and Venezuela, and the motivations for decentralization in these four countries. Next, I discuss

the variation in the extent of political, administrative, and fiscal decentralization across these four countries. Based on these measures, I formulate observable implications of how much power local politicians should have, given the settings in which they operate. The following section presents data on electoral outcomes and the results of a multivariate analysis to predict the presidential vote in each municipality. The chapter concludes with a discussion of the empirical results with regard to the decentralization theory presented above.

## **2.2 Centralization in Latin American History**

Centralization in Latin America has a long historical legacy dating back to the colonial time. The colonial systems implanted in the American colonies were based on wealth extraction and required a strongly centralized set of institutions to coordinate this process (Tulchin and Selee, 2004). These centralized institutions have formed the basis of post-colonial governance systems that continue to this day (Hale, 1981).

However, the colonial legacy of Latin America also created a countervailing force to centralism in the form of regional elites who had economic and political dominance over specific territorial extensions and popular movements that contested the terms of citizens' inclusion within the nation-state (Willis, da C B Garman and Haggard, 1999). After independence, regional elites became increasingly important, given the weakness of the post-colonial state, and most countries became a patchwork of loosely-united regions. The history of centralization in Latin America is therefore also tied to a struggle between national and regional elites in the process of state formation and conditioned by popular struggles over meaning and political participation.

Emerging national elites gradually sought to centralize power in the capital as a means of dominating large concentrations of rule-making authority outside

of the state (Migdal, 1988). While Latin American states retained a symbiotic relationship with regional elites, they gained certain relative autonomy from these elites during the course of the 20th century by centralizing power further.

Two of the countries analyzed in this chapter, Brazil and Argentina, are federal states with a long history of decentralized government, although they have oscillated between periods of greater and lesser centralization. Argentina began as a loosely organized confederation of provinces and the city of Buenos Aires after independence. It was not until the 1860s - and more strongly after 1880 - that the modern state began to emerge with the creation of a federal government with some degree of authority over the provinces and port city. The provinces retained a fair degree of power over the federation, but this was slowly eroded in the era of mass parties in the twentieth century as successive presidents strengthened the autonomy of the federation against the provinces. Several periods of military rule further centralized power in the federation (Falleti, 2005*b*).

Brazil began as a highly centralized empire, although with significant regional centers of power among large landholders in the states. After the beginning of the first republic in 1890, it became a federal state with considerably decentralized local of power. The 1930s ushered in the period of the developmentalist state with the rule of President Vargas, and this began a long period of centralization of power in the federal government under the belief that a strong national state was necessary for development (Tulchin and Selee, 2004). The period of military dictatorship from 1964 to 1985 further centralized power in the federation. However, regional elites retained their power bases and emerged from the military regime as significant political actors (Hagopian, 2007).

The other two other countries examined here, Venezuela and Mexico, are also federal states. However, they have historically been quite centralized, more so even than many unitary states in the region. Venezuela's process of re-centralization began in the late 19th century, but increased dramatically during the adminis-



tration of President Juan Vicente Gomez (1904-35). The advent of oil extraction gave the federation resources beginning in the 1920s that were used to further develop the autonomy of the state compared to the regional elites (Levine and Crisp, 1999; Kornblith and Levine, 1995). The emergence of mass-based parties in the 1940s, and the power-sharing agreement between the two major parties in 1958, cemented a political system in which allegiance to the party was primary over regional bases of power. This ‘partyarchy’ cemented a highly centralized system, with the parties monopolizing power and most space for civil society (Coppedge, 1997).

Mexico became highly centralized under the administration of President Porfirio Diaz in the late 19th and early 20th century, but the Mexican Revolution of 1910-20 led to the almost complete collapse of the state. After the Revolution, President Calles created what would come to be called the Revolutionary Institutional Party (PRI) as a catch-all party that would seek to include all major interests in society and serve as a mechanism for mediating conflicts among competing forces (Mizrahi, 2014). As the PRI strengthened its role as the ruling party, regional elites were increasingly moved among positions in the political system, increasing their allegiance to the party over their original power bases (Cornelius, Eisenstadt and Hindley, 1999). The party never succeeded entirely in eradicating local power bosses, however, and these have remained until today in several regions of the country (Diaz-Cayeros, 2006).

By the early 1980s most Latin American states had developed a highly centralized institutional structure and a degree of relative autonomy from regional elites, but these states were far from monolithic institutions of political power. On the one hand, centralization contributed to the period of remarkable state-led growth from the 1940s through the early 1970s in the region and succeeded in reinforcing a strong sense of national identity in most countries. On the other hand, centralization in the context of authoritarianism also helped to suppress

dissent, distort policy-making priorities, and limit the expression of ethnic identities. Moreover, centralization also left a harsh legacy for equity in most of the countries. Public investments were usually concentrated in capitals and other major cities. Even under elected governments, voices for regional development and advocates of the poorest sectors of society were routinely marginalized from decision-making processes.

## **2.3 The Origins of Decentralization**

In the 1980s and 1990s, decentralization reforms swept through Latin America, driven by both economic and political considerations. The severe economic crises that struck all the countries in the region in the early 1980s caused a crisis of legitimacy for state elites. The reduction of government budgets further eroded traditional clientelistic arrangements through which politicians maintained their links to voters. At the same time, significant civic movements around democracy had been building in the 1970s and early 1980s (Chalmers et al., 1997; Levine and Crisp, 1999). These movements brought new demands into the public sphere and energized challenges to existing political arrangements (Avritzer, 2006). In this context, state elites often seized on decentralization as a means of redirecting discontent to local arenas or recovering citizens' confidence in the political system. While these efforts were sometimes aimed at preventing major political changes, they generated significant political upheavals in all of the countries studied here.

In Venezuela, the delegitimization of the two-party system in the middle of the economic crisis that took the country around the 1980s led to the appointment of the Presidential Commission on State Reform in 1984, made up of political, church, business, and civic leaders. The Commission's report in favor of constitutional reforms, the pressure of civil society organizations, and the explosion of popular discontent at the end of the decade led to the creation of elected state

and municipal governments for the first time in 1989 (González and Mascareño, 2004).

In Mexico, the 1982 peso devaluation and ensuing depression led the federal government, anxious over citizen discontent, to implement a municipal reform in 1983 that granted municipalities greater autonomy with new functions and resources. The PRI-led governments of the 1980s and 1990s implemented a series of additional reforms expanding state and municipal functions and increasing resources to subnational governments in response to repeated crises of political legitimacy and the demands of an ever-growing opposition. Mizrahi (2014) argues that the PRI gradually allowed the opposition to win spaces at a local level in order to deflect conflict away from national-level politics, but the increasing local success of the opposition parties helped gradually to dislodge the PRI from power. At the same time, successive governments pursued sectoral decentralization in health and education in the belief that this would make services more efficient and demand-driven.

Transitions to democracy in Brazil and Argentina restored the historically important role of state and provincial governments, respectively, in the 1980s. Municipal governments also gained a degree of autonomy, although this was significantly less than that of the regional level. In Brazil, the economic crisis from the 1980s that created inflation and unemployment speeded the return to democracy after two decades of military dictatorship. The newly elected government convened a constitutional convention to set the outlines of the new democratic regime. Melo and Rezende (2004) argue that the centralized government was seen as a legacy of the discredited military governments and that political forces from left to right promoted decentralization as a means of ensuring transparency, participation, and equity. The decentralized nature of political parties, which in Brazil have traditionally been controlled by local elites, also made decentralization a key theme for most of the political parties involved in the debates of the

constitutional convention, which included decentralization reforms in the 1989 constitution (Mainwaring, Scully et al., 1995).

In Argentina, the provinces recovered authority with the return to democracy and increased their margin of influence through iterative negotiations with the national executive throughout the 1980s (Willis, da C B Garman and Haggard, 1999). The arrival of a Peronist president in 1990, who had run on a banner of federalism, coupled with a severe fiscal crisis led the central government to transfer major responsibilities and resources to the provinces in the early 1990s. The Argentine government decentralized both education and healthcare to the provinces without accompanying resources to compensate them for the new responsibilities, according to Falleti (2005*b*). This helped the federal government achieve its goals of reducing the federal budget, but left the provinces in a precarious financial situation.

Initial decisions to decentralize were mostly top-down in the four countries. In Brazil and Argentina, where there was a history of decentralization and political parties were considerably more decentralized, subnational actors had a much greater influence on the process. However, for the most part, initial decisions to strengthen the political role of subnational governments have been driven by national leaders' desire to reinforce or regain legitimacy in the eyes of the populace, with the desire to deepen democracy a secondary concern. Decisions on sectoral decentralization, primarily education and health, by contrast, have been driven by concerns for efficiency and fiscal pressures. Although both of these processes were largely top-down, decentralization inevitably created new stakeholders, especially subnational government officials, who became important actors in later negotiations over the terms of decentralized governance. Attempts to reverse decentralization reforms in Argentina, Brazil, and Venezuela, for example, have all met with substantial resistance from local and regional government leaders (Eaton, 2001).

Nonetheless, it is worth noting that governors and mayors, despite their role in resisting re-centralization, have not emerged as strong, unequivocal champions of decentralization either. In each of the countries studied, mayors' and governors' associations remain relatively weak and often divided along partisan lines. In Mexico, for example, there are mayors' associations for each of the three major parties (Santín, 2004), although a tenuous national alliance of the three associations has emerged recently. The National Governors' association is also primarily led by the opposition governors, with sporadic participation by those affiliated with the governing party. In Argentina, governors are largely split along party lines, although there are some signs that they have begun to work together more closely on education policy (Falleti, 2010). Overall, concerns shared by leaders of subnational governments tend to remain highly subordinated to partisan concerns.

## **2.4 The Distribution of Power under Decentralization**

How much has decentralization effectively redistributed power among levels of government in Latin America? To assess this, I analyze the way decentralization reforms have reshaped state functions along three key dimensions of decentralization: political, administrative, and fiscal (Rondinelli, McCullough and Johnson, 1989; Selee, 2004).

### **2.4.1 Political Decentralization**

Perhaps the most striking element of decentralization in Latin America has been the emergence of elected governments at a regional and local level (Table 2.1). At the beginning of the 1980s, few Latin American countries had local authorities chosen in free and fair elections. This mirrored and compounded the lack of democracy at a national level in most countries. With the return to democratic rule in Argentina and Brazil in 1983 and 1985 respectively, governments were once

again elected for provinces/states and for municipalities, after a long period in which few elections had taken place. In Venezuela, where no elected offices existed at the state or municipal level, constitutional changes allowed full elections for municipal governments starting in 1985 and for state governments starting in 1989. In Mexico, elections had taken place regularly for mayors and state governors since the 1917 constitution, but no opposition party had won a state government since the PRI's founding in the 1920s, and the opposition had rarely been allowed to win municipal elections. After 1983, opposition parties began winning a series of small and intermediate municipalities, and then state governments and larger cities after 1989.

**Table 2.1:** *Starting Year of Elections for Subnational Authorities*

	State elections	Local elections
Argentina	1983	1983
Brazil	1986	1988
Mexico	1989	1983
Venezuela	1989	1985

*Note:* Mexico began elections in subnational governments in 1917 but opposition parties rarely won municipalities until 1981 and never won state elections until 1989.

*Note 2:* Both Brazil and Argentina had municipal and provincial/state elections prior to takeovers by military dictatorships in 1964 and 1975, respectively. In Brazil, some municipal elections continued to take place during the military dictatorship.

The advent of competitive elections in subnational governments may be the most important reason that subnational governments have become important arenas of political debate and key actors within the state apparatus. While much of the literature on decentralization has focused on the administrative and fiscal

gains made by subnational governments, their significance in everyday political discussion in Latin America largely derives from their status as competitive arenas of political contestation.

Polls in several countries suggest that citizens have a generally positive impression of the role of municipalities. In Venezuela, citizens express support for decentralization and greater confidence in state and municipal officials than in federal officials (González and Mascareño, 2004). In Argentina, neighborhood organization leaders report generally positive impressions of their interactions with municipal governments and an eagerness to collaborate with them (Smulovitz and Clemente, 2004). These polls provide evidence that elected subnational governments have established themselves in the minds of citizens as significant political institutions in the past few years, but more importantly in some places than in others.

#### **2.4.2 Administrative Decentralization**

As described by Falleti (2010), decentralization has also spread to the management of public services. Reforms have helped delineate the responsibilities, rights, and functions of regional and local governments more clearly than in the past, while also assigning them increased responsibilities and functions. The Brazilian constitutional reform of 1986, the Mexican municipal reforms of 1983 and 1999, and the Venezuelan constitutional reforms of 1989, for example, all endowed subnational governments with clearer authorities than they previously enjoyed. These changes helped clarify the relationship among the levels of government in these countries more clearly than in the past.

Subnational governments have assumed substantial responsibilities for new functions since the beginnings of the decentralization reforms, but these have varied by country and level of government. Regional governments have generally

acquired more authorities (and more resources), but their responsibilities have frequently been concurrent with national government authorities, limiting regional governments' margin to set policy. Municipal governments have generally assumed fewer new responsibilities but have often had greater latitude to set policy in these areas.

In Brazil, Argentina, and Mexico, governments decentralized primary responsibilities for both education and healthcare to regional governments. These new functions, however, have generally come with considerable strings attached. In Mexico, the national government continues to set education curriculum, teachers' wages, and most education policies, leaving the states primarily as implementers of education policy. In Brazil, the concurrent responsibilities of the federal and state governments create overlapping functions in several areas, according to Melo and Rezende (2004). In Argentina, education shows considerable coordination among levels of government, but healthcare remains principally directed by national-level policymakers with the provinces as implementers (Falletti 2002). Venezuela has a completely different system in which states can request specific functions from the national government. If approved, these functions are transferred to state governments with corresponding resources after the signing of administrative agreements. This process has created a patchwork of decentralization reforms that are different from each state. Education and healthcare are among the most often transferred responsibilities, but these patterns vary considerably across the country (Penfold-Becerra, 2004).

Municipal governments have consolidated primary authority over a series of functions, for which they tend to have considerable autonomy. This includes most basic municipal services, such as local infrastructure, trash collection, and municipal planning. In Brazil, municipalities increasingly work with states to implement education policies. In all four countries, municipalities have begun to play a growing role in poverty alleviation and social development. Subnational



governments have a markedly uneven capacity to assume new functions, however. This is partly related to different capacities to raise local revenues, which I discuss below, but it also has to do with the existing human capital that differs across localities and regions. This unevenness in capacity is further compounded by the failure of central governments to coordinate decentralization arrangements effectively.

Mascareño and Gonzalez observe that Venezuela has legislation mandating the creation of a federal agency to coordinate activities among the various levels of government, but that this agency has never been created. Melo and Rezende also point to the failure of national level secretariats in Brazil to coordinate sectoral functions that have been decentralized. Several innovations have been tried to address the uneven capacity of subnational governments. In Venezuela, the provision that allows states to assume different functions based on agreements with the government is a kind of asymmetric decentralization that is increasingly discussed in other countries as an option as well. In theory, this allows subnational governments to choose from a menu of options of functions they would like to assume based on their particular abilities and needs.

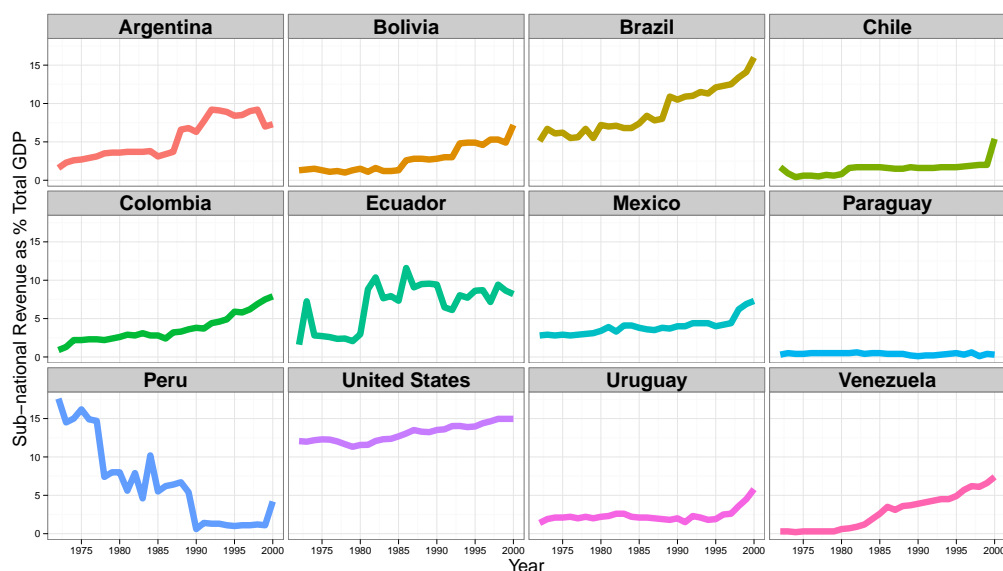
Argentina has experimented with associated municipalities, in which small and medium-sized municipalities receive legal recognition as collective entities for particular purposes (Selee 2002, Cardona 2002). This legal category allows small municipalities to develop joint solutions to infrastructure and economic development challenges by pursuing loans, development funds, and investment opportunities together. In several countries, there have been discussions about creating metropolitan governance structures to address the complex needs of very large cities. Creating metropolitan structures allows large cities, whose metropolitan area spills across several municipal jurisdictions, to develop more coordinated policy approaches. To date, however, few metropolitan areas in Latin America have experimented seriously with this.

It should be noted that decentralization refers to the empowering of subnational governments in all three branches. Despite this, most literature on decentralization refers almost exclusively to the executive branch and, occasionally, the legislative branch. However, there is a critical need for local and state/provincial courts to develop new capacities to enforce the rule of law. The evidence of strengthened judicial authority and professionalism at the local and regional levels is highly fragmentary and leads us to suspect that much remains to be done in this regard.

### **2.4.3 Fiscal Decentralization**

Subnational governments have accounted for an increasing percentage of total government expenditures since the mid-1980s, which bears witness to their growing importance. In Mexico, for example, subnational governments exercised only 11.6% of state expenditures in 1988 (Mizrahi, 2004) and 28.66% eight years later (Rowland and Ramirez 2001). In Venezuela, subnational expenditures grew from 17.18% of total state revenues in 1989 to 27.07% in 1999. Some important countries throughout Latin America decentralized the administration of resources to local governments, while others remained constant over time. The same conclusion can be drawn from Figure 2.1, which presents the evolution of sub-national revenue as the percentage of their GDP in Latin American countries for the same period. As we can see, therefore, since the 1970s, many Latin American countries have experienced a continuous movement toward fiscal decentralization.

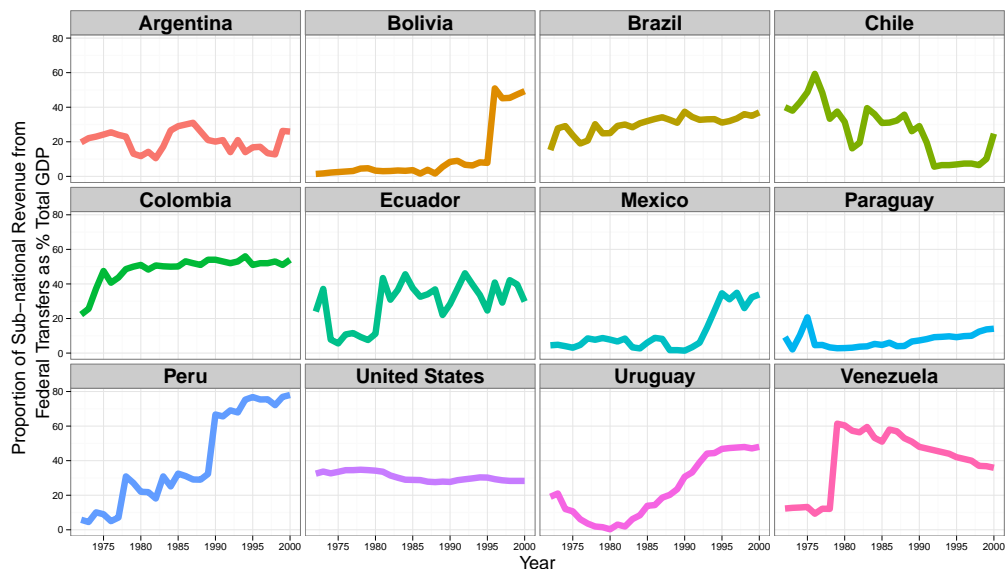
At the same time, most subnational governments remain largely dependent on fiscal transfers from the national governments. Regardless of the degree of decentralization achieved in any country, presidents are still the ‘center of gravity’ of the political systems in the region (Haggard and McCubbins, 2001; Shugart and Carey, 1992*b*; Mainwaring and Shugart, 1997*a*; Carey and Shugart, 1998; Samuels and Shugart, 2010; Amorim Neto, 2007). They dominate national-level decisions



**Figure 2.1:** *Evolution of sub-national revenues as the percentage of their GDP in Latin American countries from 1972 to 2001.*

over expenditures in most Latin American countries. They have exclusive discretion over budget allocation, enjoy decree power, and appoint cabinet members responsible for economical decisions. Then, although they have lost some power because of the decentralization reforms that took place in many countries (Falletti, 2005a), they still hold control of an important share of fiscal and political decisions (Eaton, 2004; Gibson and Calvo, 2000; Tommasi et al., 2001). This is especially true in periods of rapid growth, when revenues are abundant and much superior to what governments were expecting (Jones, 2001). Figure 2.2 presents some evidence of that. As we can see, in some countries transfers from the federal government account for 20% of the total GDP of the sub-national governments, and the average in 2000 accounts for 35%. Even more interesting is the variation in these numbers over time and across countries. Whereas some countries have a positive trend leading to local dependence on central transfers, others such as Argentina and Chile present an irregular trend over time. Although there is variation in the patterns of the national government importance over budget control

over time, the evidence suggests that central governments still control a lot of strategic resources important to the localities.



**Figure 2.2:** *Evolution of the proportion of sub-national revenues from federal transfers as the percentage of the total GDP of local governments in Latin America from 1972 to 2001.*

The dependency of local or national governments is especially true for regional governments in Mexico and Venezuela and local governments in Brazil (which depend on a mixture of federal and regional government transfers). In many cases, this reduces the degree of autonomy that subnational governments have to set policy. For example, in Mexico most federal transfers to states come with significant strings attached that limit states' ability to set policy. Different subnational governments, however, have differing capacities to generate revenue. More urban and industrial regions generally have been able to take advantage of opportunities to become inserted in the global economy and generally have more extensive revenue bases. In Mexico, federal transfers comprised from 29.6% (Baja California) to 89.5% (Coahuila) of state revenues in 1990, with a great deal of variation in between (Diaz Cayeros 1995). In Argentina, the city of Buenos Aires raises 92.78%

of its own revenue and the Province of Buenos Aires 56.51%, while some provinces, such as Catamarca, La Rioja, and Santiago del Estero, raise only 10-15% (Falleti, 2004).

**Table 2.2:** *Subnational Relationship with National Governments, 2004*

	Regional Dependency on Fiscal Transfers	Local Dependency on Fiscal Transfers	% Subnational Expenditures as Total Public Expenditures
Argentina	69.6%	17%	43.9%
Brazil	17%	67%	37%
Mexico	91.4%	71%	28.7%
Venezuela	98%	41%	27.1%

*Source:* Selee (2004)

In sum, decentralization proceeded at different paces and to different extents across Latin America. In Mexico, some schools were transferred to provinces (states) in 1983, and the whole education system was devolved to the localities in 1992 (Cook, 2004). In 1995 the Mexican congress reformed the fiscal coordination law (Diaz-Cayeros, 2006), and approved a new budget line directing resources to states and municipalities. In 1997, popular elections were held for the first time to elect the mayor of Mexico City (Cabrero and Carrera, 2000). In Argentina, a new distribution of taxes (*coparticipacion*) gave provinces (states) a higher level of revenue-sharing in 1987 (Eaton, 2004, 2001). In 1992, secondary schools were transferred to provinces (Barry, 2005; Feldfeber and Ivanier, 2003; Filmus, 1997), and in 1996 the mayor of Buenos Aires was elected by direct vote for the first time (Eaton, 2004; Levitsky, 2003). In Brazil, the 1988 constitution decentralized the health care system (Arretche, Kaufman and Nelson, 2004; Kaufman, Nelson et al., 2004), provided higher levels of revenue-sharing for states and municipalities (Lee Alston, Melo and Pereira, 2009), and recognized municipal autonomy. In 1996 the Brazilian educational system was also decentralized to states and municipalities. In Venezuela, the main reform happened in 1989 when mayors and

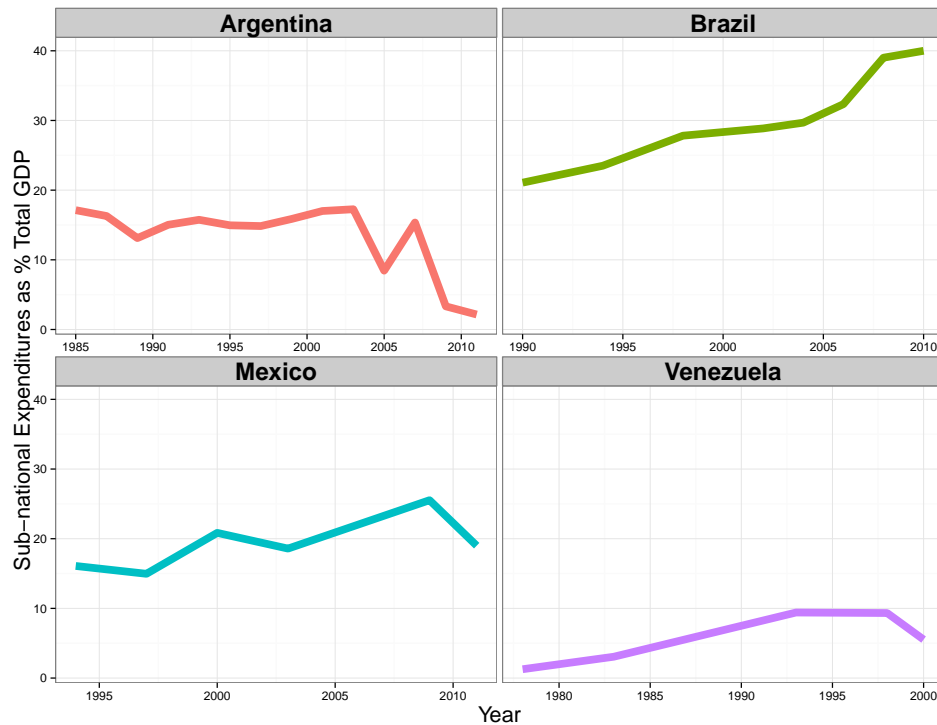
governors were first elected, and the revenues of localities were raised (Escobar-Lemmon, 2003; Penfold-Becerra, 1999, 2004).

## **2.5 Decentralization and Presidential Turnovers**

The first major ideological shift in a Latin American presidential election occurred in 1998 when Hugo Chavez, a former coup leader, was elected president of Venezuela. He was followed in 2000 by Ricardo Lagos in Chile and Vicente Fox in Mexico. Brazil was the next to see the emergence of an opposition left party. PT arrived in the presidency through the leadership of Luis Inacio Lula da Silva. Then, the Peronist Nestor Kirchner won the presidency of Argentina in 2003, followed by Evo Morales of Bolivia in 2005, and Rafael Correa of Ecuador in 2006. The rise of these alternatives was associated with a broadening of social and economic policy options in Latin America. Unlike the 1980s and the 1990s, when candidates often campaigned for office on vaguely reformist platforms but governed as before (Stokes, 2002), the post-1998 wave of partisan turnovers - most to the left - accompany a new era of policy experimentation in which governments expanded their developmental, redistributive, and social welfare roles.

The shifts in power also changed the direction of decentralization in some of the most important cases in the region (see Figure 2.3). In Argentina and Venezuela the decentralizing trend was reversed, especially in the implementation and distribution of resources. In Mexico, we observe an erratic process that goes from centralization to decentralization in small steps, not changing the overall setting too much. Brazil is the clear exception with the decentralization trend accelerating over time. The evidence for this new period suggests that Brazil can be classified as the most decentralized system, and Venezuela as the most centralized one. The cases of Argentina and Mexico are harder to classify, because the regional and local power do not have symmetric bias in reference to the national government.

Governors in Argentina and in Mexico are more powerful than mayors, but less so than presidents. Mayors, on the other hand, have more discretion over budget and policies in Mexico than in Argentina. As this paper discusses data at the municipal level, and I am interested in assessing the influence of decentralization over electoral outcomes from the perspective of the relationships between mayors and presidents, it seems justifiable to classify Mexico as more decentralized than Argentina. The final decentralization spectrum, then, sort the countries in the following order: Brazil, Mexico, Argentina, and Venezuela. This classification is similar to the one presented by Diaz-Cayeros (2006) and Harbers (2010).



**Figure 2.3:** *Evolution of sub-national expenditures as the percentage of their GDP in Latin American countries from 1980 to 2010.*

## 2.6 Determinants of Presidential Vote Share

Given the different positions at which Argentina, Brazil, Mexico, and Venezuela are in terms of decentralization, we should expect the relationship between local and national powers to vary by country. More specifically we should be able to draw clear predictions about how much influence on presidential vote and turnout mayors can have in these different contexts. In this paper, I believe decentralization to play a key role in defining how much influence local politicians have on presidential vote shares in each district. This should be true regardless of the effect of what have been known as the conventional wisdom in the literature about presidential outcomes.

In the American politics context, Abramowitz (1988) uses a model that relies on three main variables to retroactively predict presidential outcomes in the United States: approval rating of the incumbent, the condition of the economy, and the timing of the election. The first two variables are based off of a previous model designed by Lewis-Beck and Rice (1984), in which presidential approval ratings and changes in real per capita income are measured prior to each election. In that model, both variables were shown to have statistically significant effects on presidential outcome. Abramowitz' third variable - the timing of the election-indicates whether the incumbent's party has controlled the presidency for four years, or eight or more years. For the elections examined under Abramowitz' model, all three variables-economic performance, presidential popularity, and timing of the election-are shown to be statistically significant. In effect, Abramowitz improves the predictive strength of Lewis-Beck and Rice's previous model by showing that once an incumbent's popularity is controlled for, incumbency itself does not have a significant effect on presidential outcome.

The relationship between economic performance and presidential vote share has been similarly examined for incumbent presidents outside of the United States.



Zucco (2008) analyzes the presidential election in Brazil in 2006 by breaking down incumbent president Lula's vote share along socioeconomic lines. Zucco's regression model explaining Lula's vote share in 2006 holds GDP per capita, Brazil's Human Development Index (HDI) scores, and the Bolsa Familia program — a conditional cash transfer system — as three separate measures of economic performance. All three are shown to have statistically significant effects on Lula's vote share. However, both GDP per capita and HDI are shown to have a negative effect on Lula's vote share, while the effect of the Bolsa program is positive. The author explains that while support for Lula and his party declined in more developed areas, his support base dramatically increased in poorer regions due to both an improvement in the allocation of economic benefits to these areas, and in the government's ability to claim credit for it. Due to widespread poverty and inequality in Brazil, the Bolsa program has been very attractive to poor voters. In effect, Lula witnessed a dramatic increase in votes from poor municipalities in 2006 because of his strong endorsement of the program.

According to Zucco, the distribution of money through the Bolsa program established a pro-government constituency by creating a strong incentive for poor municipalities to support the government in power. In other words, the voters in these municipalities attributed their improved living conditions to Lula's government, and in effect rewarded the president - as well as his local party affiliates - with electoral votes. Lula won only 43 percent of the votes in the more developed municipalities. However, he received a massive 66 percent of the votes in the less developed municipalities - which was more than enough to offset the loss from the more developed ones. Zucco interprets these results as a function not only of improved economic performance, but also from the ability to claim credit for it. This idea is reinforced by Campbell (2012), who argues that policy approval depends on the degree to which the benefits of a given policy can be traced back to the government. According to her essay, highly visible spending programs gen-

erate the greatest amount of public approval. If we extrapolate from this concept, it seems logical that government policy that is perceived to be successful would increase presidential support by association. The fact that the Bolsa Familia in Zucco's model had a statistically significant impact on presidential vote share in 2006 serves as testament to this idea.

However, both Campbell and Zucco note that public support for government is affected by both real and perceived changes in public welfare. This notion is echoed in Abramowitz's model by holding economic performance and incumbent approval as two separate variables. Unfortunately, while Abramowitz's model provides a strong explanation for presidential outcomes, it does not take into account changes at the municipal level. As a result, economic performance and presidential approval serve only as general predictors of presidential vote share. Conversely, Zucco's model examines the specific effect a single policy has on presidential vote share while controlling for economic performance overall, but does not account for changes in presidential approval. This leaves open the possibility that specific government policy indirectly affects presidential vote share by increasing presidential approval overall, outside of either economic performance or the supposed 'incumbency advantage'. Ultimately, the comparison between the Zucco and Abramowitz models reveals that presidential vote share is affected both by national and municipal factors. An even stronger analysis would take into account the dynamic relationship between the two.

If my theoretical expectation is correct, and decentralization gives political power to local politicians; then, where decentralization is greater we should observe a bigger effect of mayoral affiliation on national electoral outcomes. In particular, if a decentralized system tends to produce strong local politicians, we should expect presidential vote to be highly influenced by mayors' endorsement in national elections. In centralized systems, on the other hand, we should observe a smaller correlation between mayoral party affiliation and presidential vote share.

Co-partisan mayors should help the president to gain votes in the next election in decentralized settings, whereas co-partisan mayors in centralized systems should not have an effect at all. In the next section I test this hypothesis by leveraging the abundance of data that can be collected on municipal elections in Argentina, Brazil, Mexico, and Venezuela. I analyze the correlation of local and national election results from 1990 to 2010 across all states and municipalities on these countries. I show that the local politician party affiliation is a much better predictor of national election results in decentralized than it is in centralized systems. This effect is much stronger than that of previous national electoral result, poverty rate, government coalition, presidential popularity, time in government, and party identification.

## 2.7 Empirical implications

If my expectations are correct, we should expect the relationship between **presidential and mayoral vote share** to vary by the extent of decentralization observed in each country, and mayors' party affiliations. These expectations lead me to two basic hypothesis:

H1 If decentralization gives **political influence** to local politicians; then in decentralized systems, we should observe a **positive** relationship between presidential and mayoral vote share in municipalities governed by presidents' **co-partisans**.

→ By contrast, in decentralized systems we should observe **no relationship** between presidential and mayoral vote share in municipalities governed by presidents' **co-partisans**.

H2 If decentralization gives **political influence** to local politicians; then in

centralized systems, we should observe a **negative** relationship between presidential and mayoral vote share in municipalities governed by presidents' **oppositions**.

→ By contrast, in centralized systems we should observe **no relationship** between presidential and mayoral vote share in municipalities governed by presidents' **oppositions**.

## 2.8 Measurement and Estimation

To my knowledge, there is no previous comparative work that has tried to explain the relationship between mayoral and presidential vote shares conditional on the decentralization level observed in each country. The current analysis aims to provide an account of the determinants of presidential vote share in the municipal level in four Latin American countries: Argentina, Brazil, Mexico, and Venezuela. In each country, the analysis begins with the first democratic election after the turnovers that empowered Nestor Kirschner, Lula da Silva, Vicente Fox, and Hugo Chavez for which data are available. The number of observations for each election and each country varies, but I have roughly 23,000 municipal-election cases to analyze.

### Presidential Vote Share

Presidential vote share, the dependent variable, measures how many votes relative to the other candidates the presidents Lula, Nestor and Cristina Kirchner, Vicente Fox, Felipe Calderon and Hugo Chavez received in each municipality. This is a standard measurement used in political science. The main drawback of using this measurement refers to the fact that presidents do not necessarily care about how many votes they get in each municipality, but in how many votes they get overall.

For the purposes of my analysis, however, this is the most appropriate variable given that I want to assess how correlated are the votes for president and for mayor in each of these localities by the party affiliation of the mayor. To do that, I have to compare the votes of both mayors and presidents at the municipal level.

**Table 2.3:** *Average Presidential Vote Share by Municipality in Argentina, Brazil, Mexico and Venezuela*

Country	Average Vote Share	SD
Argentina	0.46	0.23
Brazil	0.57	0.15
Mexico	0.30	0.15
Venezuela	0.64	0.10

Table 2.3 shows the descriptive results of the elections by country. On average, Hugo Chavez received 64% of the votes of the municipalities with a standard deviation of 10%. Lula received on average 57% of the votes with a higher variation of 15%. In Argentina, the Kirchners received on average 46% of the votes in each municipality with the highest variation among all (23%). Mexico is the country where a president can be elected with the lowest average vote share across municipalities. Fox and Calderon got on average only 30% of the vote share of each municipality. The variation is similar to the Brazilian one, 15%.

### 2.8.1 Mayoral Vote Share

Mayoral vote share, my main independent variable, measures how many votes the sitting mayor had in the previous election in percentage terms. I expect to observe a correlation between the municipal power of a mayor with the amount of support a president receives in that same municipality. Therefore, I'm going to measure the influence he should have. This design allows me to compare votes that happened at the municipal level before they took place at the national level. In Brazil and in

Venezuela, municipal elections take place between national elections. In Argentina and Mexico, there are elections that are hold concurrently and non-concurrently to the national race.

**Table 2.4:** *Average Mayoral Vote Share by Municipality in Argentina, Brazil, Mexico and Venezuela*

Country	Average Vote Share	SD
Argentina	0.72	0.24
Brazil	0.55	0.11
Mexico	0.49	0.15
Venezuela	0.36	0.23

Table 2.4 shows the descriptive results of the municipal elections by country. On average, mayors in Venezuela win office with 36% of the votes. It is a very fragmented situation with varied number of contestants. Mayors in Brazil receive on average 55% of the votes with a variation of 11%. In Argentina, the mayors are elected with a higher level of vote share, they receive on average 72% of the votes in each municipality. In Mexico, the situation is similar to the scenario in Brazil. Mayors there get on average 49% of the vote share of each municipality, varying 15% on average.

### 2.8.2 Mayor Party Affiliation

Besides the vote share of the mayor, I need to know his party affiliation. I create a categorical variable to classify parties in four categories: (1) party of the president, (2) party allied to the president, (3) independent party, and (4) party in opposition to the president. I use this four-category variable in interaction with vote share to check whether or not the party relationship with the president has any relationship with the electoral outcomes observed locally.

### 2.8.3 Control Variables

To account for other variation that might affect the electoral outcome of the presidential election in each municipality, I will run my analysis controlling for other socio-economic and demographic factors, such as GDP per capita, percentage of municipal poverty, and municipal population. To take into account the electoral dynamics of the municipalities I am also controlling for the number of years a mayor is in office, if he is able to run for reelection, presidential vote share in previous election, and the level of electoral fragmentation in the previous race.

### 2.8.4 Estimation Strategy

To estimate the effect of mayor's vote share on presidential vote share in each municipality in Argentina, Brazil, Mexico and Venezuela, I use a multilevel linear model with varying intercepts and slopes by municipalities within each country. Multilevel models are particularly appropriate for research designs where data are organized at more than one level. This is my case, as I am analyzing vote shares in municipalities that are nested in states. The campaigns are organized within each state, therefore, one can expect a correlation of the results among municipalities that are from the same jurisdiction. Resources and mobilization are all determined by the state's coordinator of the campaign, and strategies change by state.

$$y_i \sim N(\alpha_{j[i]} + \beta_{j[i]} \mathbf{X}_i, \sigma^2)$$
$$\begin{pmatrix} \alpha_j \\ \beta_j \end{pmatrix} \sim N \left( \begin{pmatrix} \mu_\alpha \\ \mu_\beta \end{pmatrix}, \begin{pmatrix} \sigma^2 & \rho\sigma_\alpha\sigma_\beta \\ \rho\sigma_\alpha\sigma_\beta & \sigma_\beta^2 \end{pmatrix} \right)$$

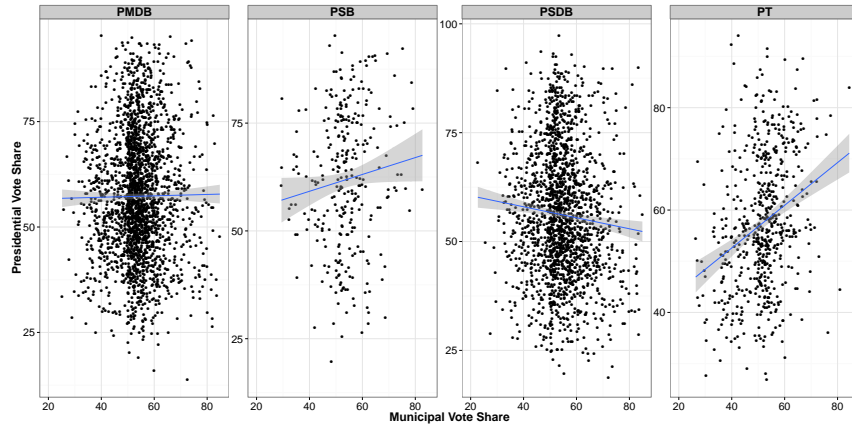
where  $y_i$  = presidential vote share and  $\mathbf{X}_i = \{\text{mayor vote share, mayor party affiliation, mayor vote share*mayor party affiliation, GDP per capita, percentage of municipal poverty, municipal population, number of years a mayor is in office, if he is able to run for reelection, presidential vote share in previous election, level of electoral fragmentation in the previous race}\}$ .

### 2.8.5 Results

The charts on Figures 2.4, 2.5, 2.6, and 2.7 illustrate the strength of the relationship between mayor's vote share and president's vote share given the party affiliations of mayors in the first round of mayoral and presidential elections between 2000 and 2012. The descriptive evidence presented here suggests that PT and PAN's mayors seem to have 'helped' Lula and Fox a lot in Brazil and Mexico, respectively; whereas places governed by the 'kirchnerismo' factions or MVR/PSUV provide significant boosts for presidential vote shares in the next electoral cycle. It is a particularly remarkable figure, especially when contrasted with the relationship between opposition mayor's vote share and president's vote share. This seems to support the idea that mayors are powerful and can help or hurt presidents in decentralized settings. The evidence for centralized countries also suggests what I expected, although the effect seems to be smaller. Whereas allied mayors cannot help presidents with votes, opposition mayors are able to reduce presidential vote share a little. I expected no 'hurt', but at least at the descriptive level, there seems to exist a small negative relationship. The results are, however, consistent with an idea that municipalities tend to vote coherently for president and for mayor. There is enough correlation between the votes to suggest that, at least on the aggregate level, most of the time municipalities do not split their support.

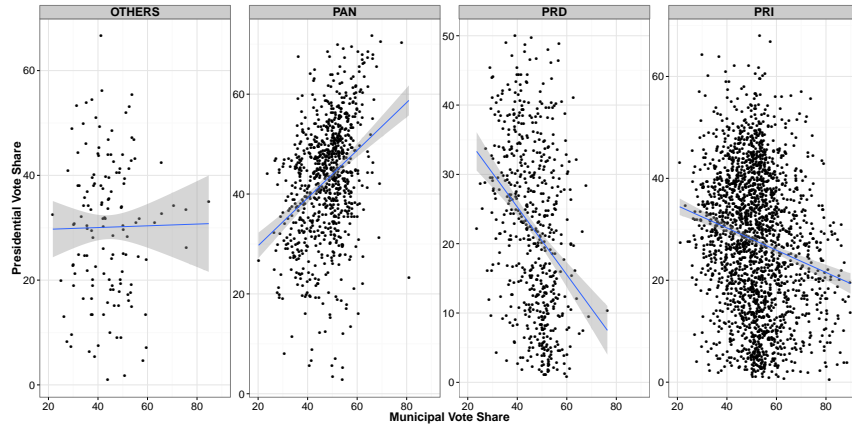
Figure 2.4 shows that the relationship between presidential and mayoral vote share in consecutive electoral cycles is positive and strong among municipalities governed by the PT, negative and weak among municipalities governed by the PSDB, and varies among coalition partners of the president. Among the municipalities governed by PMDB, the relationship is null; but among the places governed by PSB, the relationship is positive and strong. There seems to exist in this case an ideological overlap between local and national votes. Although PMDB was in Lula's coalition, the party does not have the same agenda as the PT. PSB, on the other hand, is very similar to PT and had been an ally even





**Figure 2.4:** *Marginal effect of mayoral vote share on presidential vote share conditional on mayor's party affiliation in Brazil*

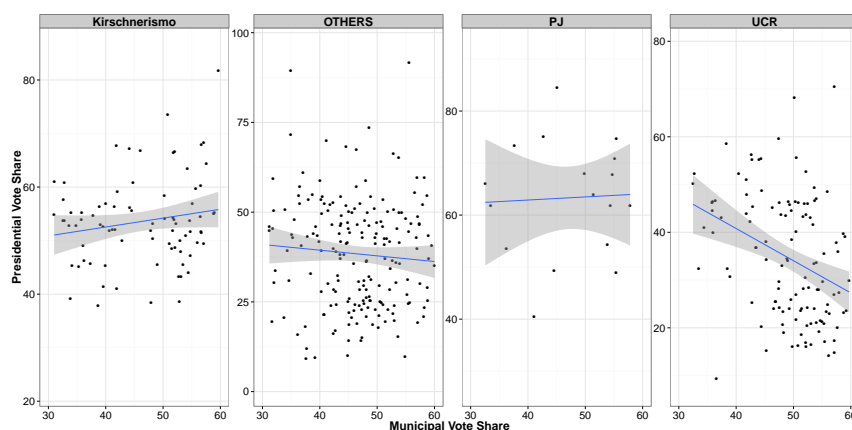
before the PT's Lula won the presidency.



**Figure 2.5:** *Marginal effect of mayoral vote share on presidential vote share conditional on mayor's party affiliation in Mexico*

In Mexico, the evidence is greatly aligned to my theoretical expectations. Figure 2.5 shows that the relationship between presidential and mayoral vote share is positive and strong among municipalities governed by the president's party, the PAN; negative and strong among municipalities governed by the opposition party,

the PRD; and negative and strong among municipalities governed by the traditional ruling party, the PRI. The political system seems to have a very clear party cleavage, which might be explained by the fact that Mexico's electoral system reinforces the strength of the political parties. The closed list on the proportional representation part of the system is key to this outcome. Brazil, however, has an open list PR that encourages personal voting. This electoral difference might be relevant for the difference on the size of the effects observed here.

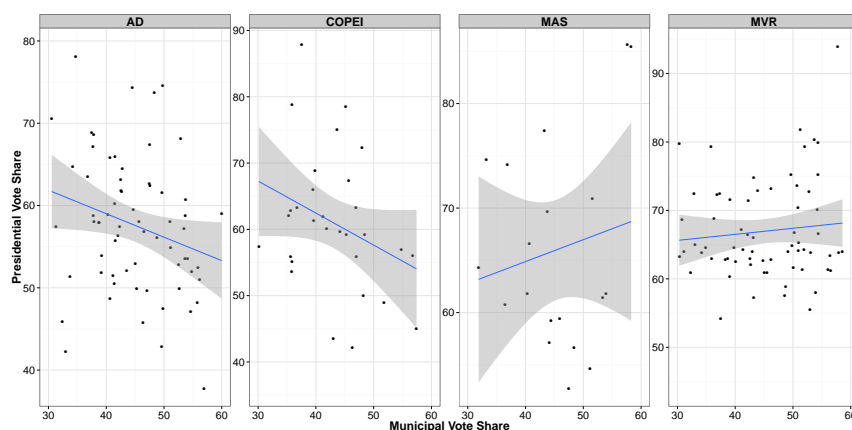


**Figure 2.6:** *Marginal effect of mayoral vote share on presidential vote share conditional on mayor's party affiliation in Argentina*

Figure 2.6 shows that in Argentina the relationship between presidential and mayoral vote share in consecutive electoral cycles is positive but weak among municipalities governed by FPV mayors or the so called 'kirchneristas'; negative and strong among municipalities governed by the UCR, and it is null among PJ mayors. The negative effect of UCR municipalities was not expected, given that Argentina's constitutional setting gives few powers to mayors. There might exist confounding factors that can explain this pattern, and the multivariate analysis will be the best way to check for that.

Finally, Figure 2.7 shows that the relationship between presidential and may-

oral vote share in consecutive electoral cycles in Venezuela is positive but weak among municipalities governed by the president’s party, the MVR/PSUV; negative and strong among municipalities governed by the opposition parties, AD and COPEI. In Venezuela, although mayors from Chavez coalition do not seem to ‘help’ him electorally, mayors from the opposition do seem to be able to ‘hurt’ his votes. Again, this simple correlation might be explained by other contextual variables that need to be taken into account.



**Figure 2.7:** *Marginal effect of mayoral vote share on presidential vote share conditional on mayor’s party affiliation in Venezuela*

The political effects of having allied or opposition mayors in municipalities are further corroborated by a multivariate analysis of the electoral results, which enables one to take a closer look at the relationship between the interactive effect of decentralization and mayoral affiliation. My analysis includes a number of independent variables, and seeks to address, albeit tentatively, the important issue of co-variance between presidential and mayoral votes at the aggregate level.

The evidence presented in Table 2.5 suggests that powerful mayors indeed are able to mobilize votes for the president when they are from the same party, and take votes from the president when they are from different parties. In Brazil, for

**Table 2.5:** *Multilevel linear model with varying intercepts and slopes by municipalities*

	<i>Dep. variable: Presidential vote share</i>			
	Brazil	Mexico	Argentina	Venezuela
Mayor vote share (MVS)	-0.08*** (0.2)	-0.13*** (0.6)	0.18*** (0.7)	-0.19** (0.9)
Party of the president (PP)	0.4*** (0.1)	0.6*** (0.2)	0.1 (0.2)	0.2 (0.1)
Coalition party (CP)	0.1 (0.2)	- (-)	0.1 (0.2)	0.2 (0.3)
Independent party (IP)	0.0 (0.4)	-0.3 (0.5)	0.1 (0.2)	0.0 (0.4)
Opposition party (OP)	-0.5*** (0.2)	-0.3*** (0.1)	0.1 (0.2)	0.2 (0.1)
MVS*PP	0.4*** (0.1)	0.6*** (0.2)	0.2 (0.2)	0.2 (0.2)
MVS*CP	0.1 (0.1)	- (-)	0.2 (0.2)	0.1 (0.1)
MVS*IP	0.0 (0.3)	0.3 (0.2)	0.2 (0.1)	0.0 (0.3)
MVS*OP	-0.4*** (0.1)	-0.9*** (0.1)	-0.4 (0.3)	-0.3 (0.2)

instance, a municipality whose mayor is from the same party as Lula — the PT — is able to increase the president’s vote share by 0.4%, relative to the vote share the president could expect with neutral mayor. In Mexico, the increase is even larger, around 0.6%. The results for Argentina and Venezuela are not statistically significant. When we analyze the scenario where the municipality is governed by an opposition we observe the same vote transfer rate, but in the opposite direction;

**Table 2.6:** *Multilevel linear model with varying intercepts and slopes by municipalities*  
(*cont.*)

	Brazil	Mexico	Argentina	Venezuela
GDP per capita	2.6*** (1.1)	3.6*** (1.2)	1.3 (2.1)	4.1* (2.4)
Municipal poverty (%)	1.3*** (0.2)	0.3 (0.3)	0.9** (0.2)	0.1 (0.3)
Municipal population	0.01 (0.01)	0.01 (0.03)	0.02 (0.01)	0.02 (0.04)
Years of a mayor in office	1.2 (0.9)	1.6 (0.8)	0.8 (0.7)	2.6 (2.1)
Mayoral reelection	-0.3 (0.4)	- -	0.8 (0.1)	0.6 (0.5)
Previous presidential vote share	0.8*** (0.2)	0.7*** (0.3)	0.3 (0.2)	0.9*** (0.3)
Municipal electoral fragmentation	-1.3** (0.6)	-0.8 (0.5)	-2.1*** (0.3)	-0.9** (0.4)
Intercept	52*** (20.1)	23** (12.6)	41 (30.3)	56** (25.9)
SD random intercept	23	21	26	22
SD random slopes	7	11	9	8
Deviance	2114	2161	2316	2087

and a rate of increase in presidential vote share in Mexico of roughly -0.9%. The results for Argentina and Venezuela, again, are not statistically significant.

For the purposes of my analysis, the results reported above are more than convincing that the interactive effect between decentralization levels and party alignment between mayors and presidents is determinant for the ability of local

politicians to help or hurt presidential electoral ambitions. But other conventional variables are significant as well, suggesting a more complex scenario. The performance of the local economy, as suggested by the theories of retrospective voting, seems to have a positive effect on the presidential vote share in all countries but Argentina. The level of poverty in a municipality was an influential factor for the vote shares in Argentina and Brazil, but not in Mexico and in Venezuela.

Previous presidential vote share (or the vote share of his/her party when the incumbent was not up for reelection) and the electoral fragmentation of a municipality are also significant factors for the vote shares of the presidents studied here. More fragmented elections are associated with less vote share for these presidents; whereas the vote share of the president (or his/her party) in previous national races is highly associated with presidents' vote shares in the elections examined here.

The power of the analysis presented above relies on the fact that the data provide support for my expectations both within and across countries. I am able to demonstrate that within decentralized Brazil and Mexico, co-partisan mayors help presidents with votes, and opposition mayors hurt them. I am also able to demonstrate that within centralized Argentina and Venezuela mayors neither help nor hurt. The comparison between the cases suggest the importance of decentralization, as defined here, as a key factor explaining such observed differences.

## **2.9 Conclusion**

In this chapter I have described the causes for the decentralization processes that took place throughout Latin America and examined the political implications of such processes to presidents' vote shares. The agenda of decentralization advocated by the World Bank in the beginning of the 1990s and the economic failures after re-democratization were the main reasons for why many countries decided

to decentralize powers, resources and responsibilities to governors and mayors in the region. Using a composite definition for decentralization - the degree of autonomous power (understood as political, administrative and fiscal authority) controlled by local politicians - I demonstrated that Brazil and Mexico were the countries that pushed more resources away from the central government. Argentina and Venezuela shifted in the opposite direction and became more centralized, thus reversing the initial process of decentralization begun after the re-democratization.

With more power and resources to allocate to their constituencies, mayors become very important political actors where decentralization proceeded further. To demonstrate this political implication, I examined municipal electoral results across 12 years in roughly 8,000 municipalities. My expectation was that mayors in decentralized settings would be able to help or hurt the president. I showed that (1) in municipalities governed by the same party as the president, the presidential vote share in a consequential election tends to be positively associated with the mayoral vote share in decentralized countries such as Brazil and Mexico, (2) but in municipalities governed by a different party than the president, the presidential vote share in a consequential election tends to be negatively associated with the mayoral vote share in decentralized countries. Also, (3) in municipalities governed by the same party as the president, the presidential vote share in a subsequent presidential election does not tend to be associated with the mayoral vote share in centralized countries such as Argentina and Venezuela. In sum, mayors are important vote brokers for presidents in decentralized countries, but are unimportant in centralized ones.

The main inference that my theory derives from these results is that decentralization level and partisanship of mayors and presidents should affect the distribution of resources in federal systems. In other words, I expect that presidents will not be able to target resources to municipalities governed by the opposition in decentralized countries because such resources could be used in favor of the

opposition and against the president in a future election. Therefore, we should observe that mostly municipalities allied with the president will receive resources in Brazil and in Mexico. But in Argentina and in Venezuela, where mayors cannot cause any help or harm to the president, we should observe resources being driven to places where the president has electoral support. I test this implication of my theory in the next chapter.



## CHAPTER 3

# Voters or Brokers? Presidential Discretionary Spending in Centralized and Decentralized Systems in Latin America

### 3.1 Introduction

I argued in Chapter 2 that when traditional opposition parties across Latin America finally broke through to win presidential elections for the first time, they quickly discovered that the presidency alone could not simply change governmental policy by fiat. This was especially true in those countries that had undergone more thoroughgoing decentralization, where powerful governors and mayors could frustrate presidential ambitions. In this chapter I examine how presidents decide to disburse resources to municipalities when contending with powerful opposition mayors. I argue that the extent of decentralization conditions presidential decisions in Latin America to send resources either directly to the towns with the most core voters or to towns governed by co-partisan mayors. When decentralization is more extensive, mayors are influential among local voters. As presidents cannot trust that opposition mayors will behave as good agents, the least risky strategy a president can pursue is to drive resources to co-partisan mayors who have less interest in hurting the president, as trying to get resources to core voters governed by opposition mayors could end up hurting the president rather than helping. In more centralized countries, by contrast, where mayors are weak, presidents can build direct linkages with voters, thereby choosing to target municipalities with

core presidential voters, regardless of the party affiliations of the local officials.

So, presidents can find it difficult to change policies on the ground if they must delegate the implementation of those policies to local brokers. Moreover, even if a president does manage to distribute resources to voters, she must compete with locally elected officials to claim credit for the largesse. If those officials are not co-partisans, the president might be a victim of her own success – essentially strengthening support for local opponents by disbursing resources to local voters. Finally, local office holders are also important players in local elections for national offices. Governors and mayors are key local mobilizers on behalf of candidates for the national legislature and indeed for the presidency itself. A president may wish to increase her party’s legislative strength and also to enhance her own reelection prospects or the prospects of her chosen successor. Both causes are damaged when other parties dominate local offices, effort is difficult to observe, and promises to reward effort are not always credible (Lucardi and Rosas, 2013). Capturing the top prize of the presidency after a period of decentralization is necessary but not sufficient for a party interested in policy change.

Should a newly inaugurated president allocate resources to localities governed by hostile mayors, even when those mayors might divert the resources or steal the credit? Or should she allocate resources to her few local allies, even though this would mean not rewarding her own supporters in municipalities governed by opposition mayors? The literatures on distributive politics and Latin American studies have long investigated the predictors of discretionary resource allocations. This chapter contributes to this literature by assessing the influence of political institutions, such as decentralization level and federalism, on the presidential strategies in Argentina, Brazil, Mexico, and Venezuela. Specifically, I focus on the trade-offs implied by the distributive choices presidents make when multiple elected officials in decentralized countries have conflicting interests and I extend the scope of the analysis by comparing results across countries. To estimate the

importance of decentralization and partisan relationships for presidential allocations, I systematically integrate qualitative and quantitative empirical work in a Bayesian model. I use fiscal data in a statistical model with parameters that are informed by priors from interviews with presidents, mayors, and bureaucrats in these four countries.

Importantly, I am able to show that funds are targeted at presidential voters in centralized countries (Argentina and Venezuela), no matter the partisanship of the local elected officials, but are mostly sent to municipalities with local elected allies in decentralized countries (Brazil and Mexico), whether or not most voters in those municipalities supported the president's own election. Regions lacking either supportive voters or local allies receive few resources in either centralized or decentralized settings.

I organize the chapter as follows. In section 1, I present a distributive theory of discretionary presidential allocations to municipalities as a function of the level of decentralization and the political alliances between presidents and mayors. In Section 2, I discuss the data, how I operationalize my variables, and the Bayesian approach I employ. I also detail the importance of prior elicitations for my results. In section 3, I present the findings of the Bayesian model of presidential resource allocation, and in section 4, I conclude.

## **3.2 Presidential Discretionary Spending in Decentralized Systems**

My work contributes to the debate about how politicians allocate goods to their electoral prospects by incorporating the role of elected brokers in multi-tier systems in to the explanation of how distributions take place. Valenzuela (1977), Calvo and Murillo (2011), Stokes et al. (2012) and Weitz-Shapiro (2012), among others, have shown the importance of brokers in the distribution of government

goods in several countries, but their notion is different from the one I use here. For those authors, brokers are local *nonelected* intermediaries hired to provide targeted benefits and solve problems for their followers. Mayors are far from this definition, they also care about their political careers and depend essentially on voters' support to build those careers. In other words, mayors want to be accountable to their voters too. My notion of the role of local politicians is more similar to that of Borges (2011), for whom local politicians are powerful political brokers. The decentralized organization of national parties allowed subnational rulers to rely on their increased powers over policy making to strengthen regional party machines and to maximize their autonomy from central actors and institutions (Hagopian, Gervasoni and Moraes, 2009).

Politics in federal systems involves multiple and legitimate governments headed by presidents, governors, and mayors. Any consideration of the distribution of resources, therefore, needs to take into account that all such players have interconnected interests in benefiting from investments, and also in blaming oppositions for bad performance. In a decentralized system, we should expect to observe strong local politicians who are independent agents, able to get credit for outcomes produced by other politicians, and able to mobilize voters using such influence. In centralized systems, by contrast, we should find weak local politicians, agents who are dependent on presidential acquiescence to get credit for local outcomes supplied by the central government. Whether mayors are strong or weak, in turn, should determine the presidential strategy for targeting spending (Hallerberg, Scartascini and Stein, 2009).

As described earlier, federal resources can be targeted geographically to promote policy goals (Treisman, 1996; Besley et al., 2003; Evans, 2006) and voter support for the incumbent party in national elections (Ames, 2001; Pereira and Mueller, 2004; Amorim Neto, 2006; Hidalgo and Nichter, 2013). To the extent that voters respond to targeted spending, a president can use budgetary discretion to

gain votes for himself or his designated successor. But in a decentralized system, federal transfer spending also improves reelection odds for incumbent mayors in targeted municipalities. The political benefits of transfer spending thus accrue not just to the president, but also to an array of local politicians who may or may not share the president's party and political goals.

This creates a dilemma: by targeting his own core voters and pursuing social policy goals, the president may be supporting the reelection goals of his political rivals at the local level. This dilemma looms larger when the scope of the presidential party's power is narrow at the municipal level. Under decentralization, a president needs to rely on loyal local agents to implement policy changes and to receive credit for what he does for his voters. Lack of information, more typical in decentralized settings, may allow a different party at a different level of government to claim the credit. This confusion might lead voters to reward the wrong party (Bruhn and De La O, 2009). As a credible credit claimer, a mayor not allied with the president has incentives to make voters believe that his political party is responsible for the improvements they observe in the region. This is a real threat to the president, as he is then expending resources that strengthen opponents. If mayors are disloyal agents, they can also put at risk their own political careers, as voters might see them as also responsible for not improving their welfare.

The best way to guarantee that a local politician will act as a president's agent is to make sure he also benefits from advertising the president's name, publicizing the president's services, and mobilizing voters to support the president's party in subsequent elections. Therefore, a local agent is more likely to be loyal when he is a member of the presidential party. Co-partisans have much less incentive to blame each other because negative effects will have negative spillovers for both. Similarly, co-partisans have incentives to build party brands and reputation, which will lead to positive spillover effects over both offices (Scully, 1995; Cox and McCubbins, 1993; Kitschelt, 2010). By contrast, when local politicians are weak players who

do not influence electoral or policy outcomes, another solution for presidents is to bypass mayors and use discretionary powers to build direct linkages with voters instead (Fox, 1994*b*; Dickovick, 2006). In this case, presidents do not need to create incentives for mayors to act as if they were acting in the name of the president. Presidents just need to make sure municipalities with core voters are receiving sufficient federal investments.

Although decentralization can be considered a general trend in the whole region, cases like Argentina and Venezuela are still considerably centralized. Local politicians in these countries cannot credibly free-ride on federal resources to extract electoral advantages. Voters know that presidents are responsible for allocations, and that mayors make very small contributions to the outcomes they see. Consequentially, local politicians have much less leverage in influencing voters' choices. Voters do not see them as providers of benefits, and, therefore, mayors cannot threaten presidential popularity by obscuring presidential responsibility as the outcome providers. In this setting, responsibilities are clearer, and presidents can convert investments into votes more easily (Duch and Stevenson, 2010; Powell and Whitten, 1993*a*; Samuels, 2004).

The argument formulated here has a clear empirical implication that could be contrasted against a model of the data. In the following sections, I test the hypothesis that:

H3 In more decentralized countries, where mayors have more influence over policy implementation and over voters, presidents should allocate proportionally more resources to municipalities governed by co-partisan mayors. By contrast, in less decentralized countries, where mayors are weak, presidents should allocate resources where core partisan voters reside, regardless of mayoral partisanship.

### 3.3 Understanding Presidents' Allocative Strategies

In this chapter, I present a comparative study of four countries, which together account for more than 70 percent of the population of Latin America — Argentina, Brazil, Mexico, and Venezuela. I assess fiscal spending in 104,860 municipality-years in these four countries. Within Latin America, several commonalities and differences make Argentina, Brazil, Mexico, and Venezuela particularly suitable for comparison. These features, combined, provide a good set of cases with which to explore the reasons for the diverging impact of decentralization level on the spending strategy of Latin American presidents.

First, because these are the largest countries in the region, it is reasonable to assume that relationship between levels of government and among subnational units are politically relevant (Willis, da C B Garman and Haggard, 1999; Escobar-Lemmon, 2003; Falletti, 2005*a*). Second, these four countries have similar government structures, each with three tiers of government. Third, two major institutional differences among Argentina, Brazil, Mexico, and Venezuela allow for controls to the main argument. With regard to the degree of autonomy of subnational officials at the beginning of the presidents' terms, those in Brazil and Mexico had high levels of autonomy established prior to the inaugurations of traditional opposition parties, whereas the subnational officials of Argentina and Venezuela had lower levels of autonomy in comparison to their central governments. And in terms of their political party systems, the Venezuelan president was elected with large majorities nationally and locally, whereas the presidents in Argentina, Brazil, and Mexico lacked local support from the beginning of their terms. Hence, the four cases vary along these two important institutional variables.

What follows is based on information collected from five months of fieldwork research carried out in Argentina, Brazil, Mexico, and Venezuela. The primary data analyzed include fiscal and electoral data; and more than 70 in-depth inter-

views conducted with academics, politicians, and public officials from the national and subnational levels of government in the four countries. To evaluate how presidents distribute resources to geographic areas in the country, I compare municipal and national executive election results to municipal-level observations of transfers allocations from 2003 to 2010 in Brazil, from 2000 to 2011 in Mexico, from 2003 to 2011 in Argentina, and from 2000 to 2011 in Venezuela.

In Brazil, I study the allocation patterns of Lula da Silva's administration. In Brazil, presidents and mayors are allowed to run for reelection once. The terms of both mayors and presidents are four years, but they are staggered, with municipal elections taking place at presidential midterms. Therefore, in each municipality, the combination of mayoral partisanship and presidential vote shares can change every two years. Presidential elections were held in 2002 and 2006, with municipal elections in 2000, 2004, and 2008. In Mexico, I analyze the distribution patterns of the *Partido Accion Nacional* (PAN) under the leadership of Vicente Fox (2000–2006) and Felipe Calderon (2007–2011). States control the schedule of mayoral elections, so they occur at various times during a presidential term. The president has a single six-year term, whereas mayors have single four-year terms. National elections were held in 2000 and 2006, whereas most of the municipal elections were held in 2000, 2004, and 2008.

In Argentina, I analyze most of the years in the Kirchner era. Nestor Kirchner governed from 2003 to 2007, and Cristina Fernandez de Kirchner, his wife, governed from 2007 to the present. In Argentina, national and local elections are concurrent, and are held every four years. The president is allowed to run for reelection once, whereas mayors have no term limits. National and local elections took place in 2003, 2007, and 2011. Finally, in Venezuela, I focus on Hugo Chavez's governments (2000–2012). The electoral rules changed considerably during the time period under assessment here, but most often, the president and mayors were allowed to serve two consecutive terms. National elections took



place in 2000, 2006, and 2012, whereas local elections occurred in 2000, 2004, 2008, and 2012.

### 3.3.1 Measuring Municipalities' Federal Investments per Capita

The municipality is the unit of analysis for the investments made by the central governments in Argentina, Brazil, Mexico, and Venezuela. The dependent variable is annual per capita investments of the central government in the municipality. First, I convert the data from nominal national currencies to real 2003 U.S. dollars, using the World Bank database on historical exchange rates and correcting for the official inflation reported by each country. I included transfers that refer to investments in constructing new buildings, new roads, new schools, and new hospitals or the maintenance of them. Resources come from different sources, but they are all discretionary amounts invested by the national government to create infrastructure in general.<sup>1</sup> Descriptive statistics for each country are presented

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<sup>1</sup>Data for Brazil comes from SigaBrasil. The information about budget investments of national companies (e.g., Petrobras) is not included. Formally, I analyze expenses called 'investments' according to the budget classification. The information for Mexico comes from the INEGI. The investments relate to the Mexican fiscal and social security budget. Data related to oil and minerals is not included, but only the investments the president allocates to municipalities on a discretionary basis. Formally, I analyze expenses called 'aportaciones' and 'inversion publica federal' according to the budget classification. The data for Argentina were provided by the Finance Ministry and contains all discretionary federal investments made by the national government in municipalities throughout the period. The 'co-participacion' is excluded from the raw data, and most of the disbursements are related to the infrastructure improvement program created in 2003 by the national government: *inversiones en obras publicas*. The data also contain resources invested in housing building (*politica nacional de viviendas*) and in road construction. Most of the investments were taken from the *banco de proyectos de inversion publica* - BAPIN, which contains national disbursements in form of direct investments to municipalities. The discretionary resources that the Venezuelan president controls are under the umbrella of several small national funds called *FONDEN*, *FIDES*, *LAEE*, *Fondo de Compensacion Interterritorial*, and *Creditos Adicionales*. These resources are given to municipalities in

in Table 3.1. Brazil has the highest percentage of municipalities that did not receive national investments over the years. By contrast, Venezuela has the highest average of national spending across the four countries, followed by Mexico, and Argentina.

	Brazil	Mexico	Argentina	Venezuela
Percentage of Zero Spending	74.1	35.6	2.7	1.8
Average	15.2	101.9	24.78	142.87
Standard Deviation	75.9	64.9	36.2	282.75
Minimum	0.00	0.00	0.00	0.00
Maximum	3,532.3	983.9	367.3	8,119.6
Municipality-Year Obs.	44,512	32,370	23,946	4,032

**Table 3.1:** *Spending per capita by Country (in Dollars). The first row contains the percentage of municipalities that did not receive federal investments. The second presents the average amount of investments per capita disbursed by the national government to municipalities.*

### 3.3.2 Operationalizing Municipal Political Profiles

My main explanatory variable is the *municipal political profile*, which is a categorical variable that combines information about voters' preferences as expressed in presidential and mayoral elections. The variable has four mutually exclusive categories: (1) municipalities in which the plurality of voters supported the current order to improve infrastructure and other necessary public institutions. The information was provided by the ONAPRE, the office that administers Venezuelan budgetary information of the country.

president in the presidential election and also elected a mayor from the president's party (core districts), (2) municipalities in which the plurality of voters supported the president but did not elect a mayor from the president's party (core districts with rivals), (3) municipalities in which the plurality of voters did not support the president but did elect a mayor from the president's party (opposition districts with allies), and (4) municipalities in which the plurality of voters did not support either the president or her party's mayoral candidate in the most recent round of elections (opposition districts) — see Figure 3.1.

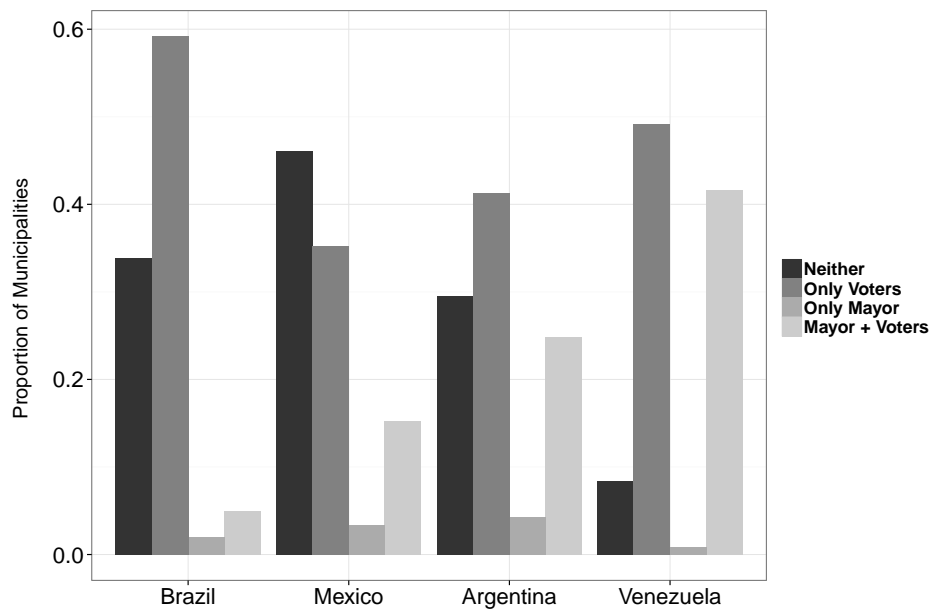
		Mayor Party Affiliation	
		Rival	Co-partisan
Presidential Electoral Support	Not Most Voted	Opposition District	Opposition District with Ally
	Most Voted	Core District with a Rival	Core District

**Figure 3.1:** *Municipal Political Profiles*

The first dimension distinguishes voters' choices in the national election. If a plurality of voters in a municipality voted for the president, the municipality was coded as containing the president's core voters (=1); otherwise, I code it as in opposition to the president (=0). The second dimension identifies mayors' affiliations having as a reference the president's party (=1) or others (=0). In the way I operationalized this variable, it varies by municipality and by year.

Figure 3.2 presents the aggregated political profiles of municipalities by country. Overall, presidents receive the plurality of the votes in the majority of the municipalities. In Argentina and in Brazil, for example, approximately 70 percent

of the municipalities voted mostly with the president in the national elections. In Mexico, the percentage is smaller, 50 percent, but still significant for a party that was in the opposition for 70 years. In Venezuela, President Hugo Chavez received the plurality of the votes in almost all municipalities. Interestingly, the majority of these municipalities in the four countries were governed by mayors from parties different from those of the president. In Brazil, where presidents have been governing with coalitions since re-democratization, the percentage of municipalities with opposition-party mayors but with president's core voters is close to 60 percent.



**Figure 3.2:** *Municipal Political Profiles by Country (2000-2011).* Overall, presidents receive the plurality of the voters in the majority of the municipalities. However, the majority of these municipalities in the four countries were governed by mayors from parties different from those of the president.

The representation in Figure 3.2 fails, however, to capture the longitudinal variation of the municipal political profiles. In Brazil, Lula obtained the plurality of votes in the majority of the municipalities in his first election, but his party

was not able to accomplish even nearly the same outcome. However, the number of municipalities governed by the PT more than doubled between 2002 and 2010, increasing from 200 to roughly 500. The number of municipalities that both opposed Lula and elected opposition mayors, by contrast, dwindled substantially, especially after 2006. In Mexico, the situation is very similar to that described for Brazil. When President Vicente Fox was inaugurated in Mexico, his party, the PAN, had the plurality of the votes in the majority of the municipalities but did not govern the majority of the local offices. Fox was the plurality vote winner in 53 percent of the municipalities, and Felipe Calderon in 55 percent. By contrast, PAN controlled only 9 percent of mayorships in 2000, but 26 percent in 2007. The numbers show a substantial increase, but mainly in places where PAN was already doing well in the presidential elections.

Venezuela and Argentina present a distinct pattern of municipal political profiles over time. Both Hugo Chavez (Venezuela) and Nestor Kirchner (Argentina)<sup>2</sup> were elected with the plurality of the votes in a large majority of the municipalities, but their parties won more mayoral races only in the two presidents' second terms in office. Hugo Chavez won the plurality of the votes in 80 percent of the municipalities in 2000 and 92 percent in 2006. His party governed 27 percent of the municipalities in 2000 but six years later controlled 57 percent of the local offices. Importantly, the major shift occurred after the 2006 presidential election when a large portion of the municipalities in Venezuela voted for Chavez and elected mayors from his party. In Argentina, the majority of the municipalities have always preferred the Kirchners, but not always their local allies. As in Venezuela, it is only during the first term of President Cristina Kirchner, the inheritor of Nestor Kirchner's government, that the *Frente por la Victoria* (FPV) controlled almost

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<sup>2</sup>Recall that Kirchner won the presidential election of 2003 with only 23% of votes after Menem left the runoff race. Taking into account the total number of votes cast in each municipality, Nestor Kirchner had the plurality of votes in the majority of municipalities.

the majority of the municipalities in the country. In 2003, the FPV had 14 percent of the local offices in Argentina. In 2008, this number rose to 48 percent. In terms of votes, the Kirchners' governments were also able to increase their dominance in the municipalities. The number of municipalities in which the FPV had the plurality of the voters increased from 58 percent in 2003 to 79 percent in 2009.

### 3.3.3 Accounting for Alternative Explanatory Factors

There is broad consensus among scholars that low-income voters are more susceptible to 'selling' their votes in exchange for material goods and are apt to vote for the government that provided such outcomes (Gervasoni, 1998; Brusco, Nazareno and Stokes, 2004; Reinikka and Svensson, 2004). If one believes in the argument that incumbent parties want to extract the highest returns from pork and patronage, then presidents should allocate resources to localities in which poor voters are abundant and voters need infra-structure investment. To account for variations in the level of development across municipalities and states I used measurements of *poverty rate* and *GDP per capita* for each municipality.<sup>3</sup>

There exists a rich literature on how Conditional Cash Transfer programs produced significant changes in voting patterns across Latin American countries (Rawlings and Rubio, 2003; Hunter and Power, 2007; Zucco, 2008; De La O, 2012; Zucco and Power, 2013; Zucco, 2013). To adjust for that, in each country

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<sup>3</sup>The data for Mexico comes from the database SIMBAD of INEGI and from the CONAPO. The information for Venezuela comes from the INE. The poverty and economic indicators for Argentina's municipalities were collected directly in the 'Centro de Estudios para la Produccion' from the 'Ministerio de Industria', and from the 'Sistema de Informacion Estadistica Local (SIEL)' in the INDEC. Data for Brazil is from IPEADATA and FIRJAN. The municipal level of poverty for Brazil is only available for 2003. Therefore, I decided to use a better proxy that varies by year and by municipality: the *IFDM index*. It is based on employment rate, income, education, and health levels of each municipality. It ranges from 0 to 1, with 1 being the best situation a municipality can have.

I controlled for the number of families that received *Conditional Cash Transfers* from the national government.<sup>4</sup> This is necessary as a way to control for the other tools that presidents in Latin America have to target voters directly, bypassing other politicians.

Another set of scholars have argued that presidents in Latin America, and particularly in Brazil, use their distributive powers for legislative coalition building (Amorim Neto, 2002; Snyder and Samuels, 2001; Arretche and Rodden, 2004; Auston and Mueller, 2006; Zucco, 2009; Nunes, 2010). According to this view, federal politicians have incentives to distribute federal resources favoring certain municipalities that help maintaining their political power. Given that the votes of legislators are essential to advance the presidential agenda, national politicians might favor municipalities in which coalition partners have constituents. Given this setting, one should expect that presidents have strong incentives to allocate public goods based on strategic calculations to obtain legislative support (Sørensen, 1995; Gibson and Calvo, 2000; Jones and Hwang, 2005; Giraudy, 2007; Bonvecchi, 2009).

I include a control variable to account for the relative importance of each municipality for legislators who are members of the presidents' legislative coalition. Municipalities that deputies are accountable to are called the *Electoral Constituency*. Using legislative and electoral data from each country,<sup>5</sup> I created a dichotomous variable to indicate whether or not a municipality is a main electoral constituency of a legislator who is part of the president's legislative coalition. Municipalities that were identified in such way were coded as 1; the others received 0 value. For Mexico and Venezuela, I operationalized this variable based on the

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<sup>4</sup>In Brazil, I used information from Bolsa Familia. In Mexico, I used information about Solidaridad. In Venezuela, I used information from Misiones. And in Argentina, I used information from Programa Ciudadania Porteña.

<sup>5</sup>TSE in Brazil, the 'Ministério del Interior' in Argentina, the CNE in Venezuela, and CIDAC's electoral database in Mexico.

electoral outcomes in single-member districts. Every municipality that elected a deputy supporting the PAN in Mexico or the PSUV in Venezuela was identified as an electoral constituency of the government.

For Brazil and Argentina, I used two strategies. Argentina has a closed-list proportional representation system - votes are cast for the party lists - whereas Brazil's is open list - votes are cast for individual candidates. In Argentina, a municipality is classified as the electoral constituency of legislators from the president's legislative coalition when the plurality of that municipality voted for the FPV in the national legislative elections.<sup>6</sup> For Brazil, the open-list system was also a challenge. For each deputy in Lula's legislative coalition, I identified the municipality from which a deputy received his greatest number of preference votes and coded it as 1.<sup>7</sup> Second, for each deputy in Lula's coalition, I identified the municipality in which a deputy had the largest victory margin. In other words, among all municipalities in which a deputy received votes, I identified the ones in which he got the largest percentage of votes, as a share of the number of votes in each municipality.<sup>8</sup>

Previous studies have found that incumbent parties are better positioned to establish clientelistic linkages with their core voters and to extract the highest returns from allocations (Stokes, 2005; Magaloni, Diaz-Cayeros and Estevez, 2007; Zucco, 2008; Greene, 2008; Nichter, 2008). This scholarship suggests that there should be a positive vote share effect on the allocation of resources. That is, municipalities that were key for the president's election should receive more dis-

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<sup>6</sup>The overlap between municipalities and electoral districts is not perfect, but I used GIS information from Argentina to map the districts and the municipalities.

<sup>7</sup>For example, if deputy A was elected with 100 votes, being 30 from municipality A, 60 from municipality B, and 10 from C, I coded municipality B = 1 and assigned 0 to A and C.

<sup>8</sup>For example, if deputy A was elected with 100 votes, being 30 from municipality A (population = 31), 60 from municipality B (population = 500), and 10 from C (population = 30), I coded municipality A = 1 and assigned 0 to B and C.



cretionary transfers (Case, 2001; Golden, 2003; Larcinese, Rizzo and Testa, 2006; Ansolabehere and Snyder, 2006a). To account for this hypothesis, I constructed a variable with the percentage of votes each municipality provided for each of the presidents, given the total number of votes each received. I am calling this the *president's constituency*, as it takes into account how much electoral weight each municipality has in generating presidents' electoral victories.

	Brazil	Mexico	Argentina	Venezuela
Poverty Rate (%)	26.8	42.7	23.4	36.3
GDP per capita (\$)	5,788	8,490	5,490	6,748
Population benefitted by CCT (%)	26.4	24.6	8.3	73.1
Electoral Constituencies (%)	10.4	29.1	21.3	42.5
President's Constituency (Average)	0.08	0.11	0.12	0.25

**Table 3.2:** *Averages and Proportions of Control Variables, 2000 to 2011. Mexico has the highest levels of poverty, but the best values for GDP per capita. Conditional Cash Transfer programs are very popular across countries, and has covered most voters in Venezuela. Almost 30 percent of municipalities are represented by Legislators from the president's party in Mexico, but only 10 percent in Brazil. Municipalities are on average much more important to the President of Venezuela than they are for the President of Brazil.*

I have controls for the *mayor's vote share* in every municipal election that took place between 2000 and 2011. This measure serves as a proxy for the municipal influence of mayors on their municipalities. To control for the heterogeneous influence of governors, I also included *governor's political party* in the models. Most of the literature on intergovernmental transfers used data from states or provinces.

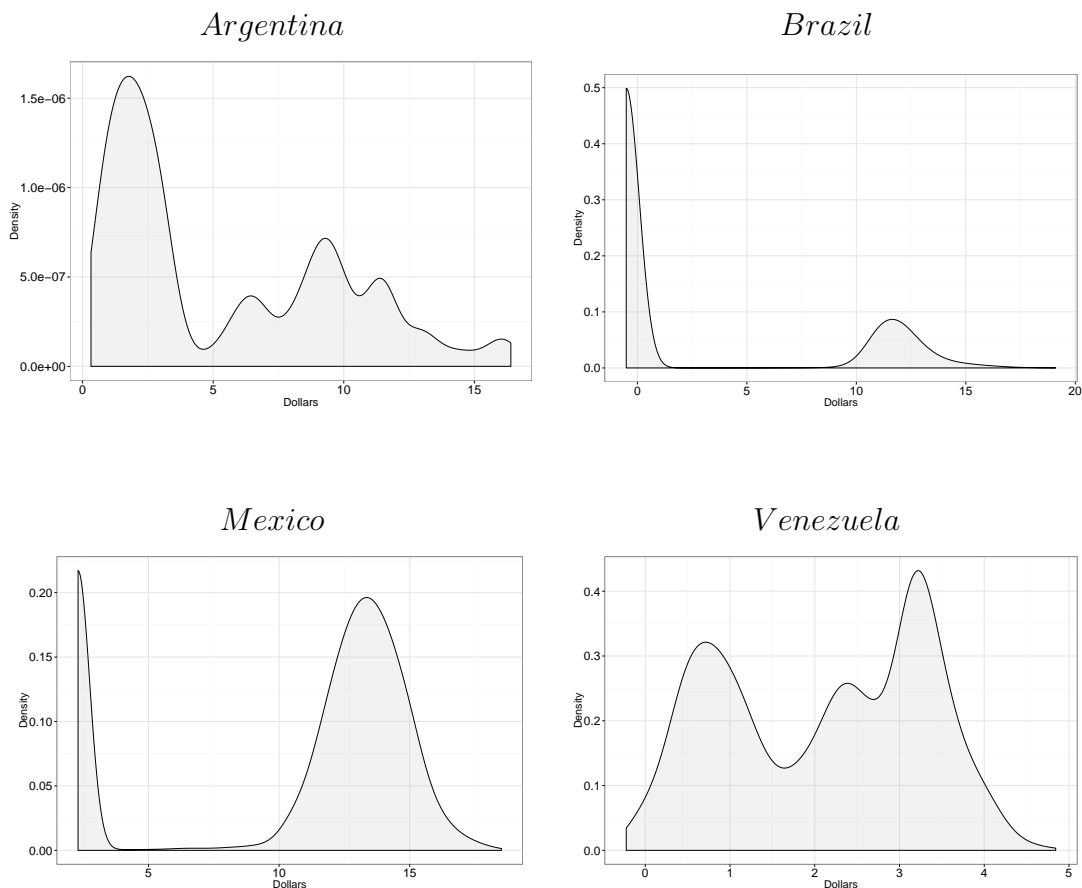
Setting state controls helps isolate the various important factors related to the influence governors have on presidential discretionary allocations (Desposato, 2004). Finally, the models control for the *mandatory* amounts of resources that each municipality received by year. Doing so, I expect to avoid any confounding due to the existence of constitutional investments for each municipality.

### 3.3.4 Estimation Challenges: How to Analyze Expenditure Data

Spending data takes nonnegative values with a substantial proportion of zeroes. A standard way to deal with these kinds of data — often called censored — is to use a Tobit model (Tobin, 1958). In its simplest version, the Tobit model assumes there exist a latent variable that is observed whenever it is positive, but it is censored at zero when it is negative. More important, the dependent variable in this model follows a distribution that is a mixture of discrete and continuous random variables that correspond to one unique decision process. The process that I am modeling here, by contrast, has a different nature that a Tobit model cannot capture. I want to model a two-part process of presidential spending that is composed of two correlated moments: (1) the decision of whether or not to disburse some portion of resources to a municipality, followed by (2) a decision of how much to allocate in case the first decision was positive.

This type of process is not censored in a typical fashion, but it is characterized as semicontinuous. That is, there may exist a gap between the zero values (reflecting a decision not to spend) and the positive values of spending (reflecting the level of discretionary spending). In contrast with what the Tobit model assumes, in my data a zero value is the result of a presidential choice not to allocate any resources to a certain municipality. My data are positive, by contrast, because after deciding whether or not to allocate, the president decides *how much* to allocate. One solution for when the data contain zeroes and positive values coming from different decision processes is to use a two-part model. The first

stage models whether the response is positive or zero. Conditional on the first stage being positive, the second stage models its level. As noted by Duan et al. (1983), two-part models are easier to interpret than the Tobit because the second part of a two-part regression describes the conditional mean of the response given that it is non-zero, a quantity that is highly meaningful.



**Figure 3.3:** *Presidential Discretionary Spending per capita in Dollars by country (2004).*

The data analyzed here present clear features of semicontinuity, which suggests the adoption of a two-part model (see Figure 3.3). In Brazil, for example, more than 70 percent of municipalities received no annual discretionary federal investment whatsoever, whereas a small fraction had large expenditures, espe-

cially in 2008. In Mexico, roughly 35 percent of municipalities did not receive any discretionary investments from presidents between 2000 and 2011, but the majority of localities have been receiving more investments per capita over time. In both Argentina and Venezuela, by contrast, the percentage of municipalities not receiving investments is low, and the average amount invested by the federal government in municipalities has been roughly constant over time.

Besides having these two parts, the data also contain multiple observations for each municipality, which introduces within-municipality correlation. The correlations between spending in adjacent years varies from 0.01 to 0.99 from year to year and across countries, but they are always present to some extent. Ignoring that observations are correlated over time may lead to: exaggerated goodness of fit measures, estimated standard errors that tend to be smaller than the ‘true’ standard errors, and possible parameter inconsistency. The literature suggests many approaches for dealing with this. One approach is to assume that each unit has a fixed but unknown intercepts that can be estimated by adding a dummy variable for each unit — the ‘fixed effects’ (FE) model (Angrist and Pischke, 2009). However, the fixed effects remove any of the average unit-to-unit variation from the analysis, and simply ask whether intra-unit changes in  $y$  are associated with intra-unit changes in  $x$  (Beck and Katz, 2011). Moreover, using fixed effects also makes it difficult to discern the impact of variables that change only slowly (Greene, 2003).

Another approach is to assume that each unit has random effects that are part of a distribution family, and that these random variables could be further modeled properly. This second approach — also known as the ‘mixed model’ or ‘random effects model’ — adds a hierarchical structure to the random effects and models them accordingly. I use a mixed model with municipal random intercepts and year random slopes that not only deals with the problems mentioned above, but that also allows each municipality to have its own over-time expenditure

trajectory. A major complaint lodged against random effect models relates to the restrictive assumption that independent variables be orthogonal with the random effects term. Since a variable varies both within and between municipalities, many argue that this is an unrealistic assumption, because unobserved heterogeneity will almost always be correlated with the independent variables. I acknowledge this limitation in the approach used here, but later in the paper I provide evidence for why this is not going to be critical for my conclusions.

The two-part mixture model fitted here has correlated random intercepts for municipalities and random slopes for time, and can be represented as follows:

$$f(y_{it}|\phi_{it}, \mu_{it}, \tau^2) = [(1 - \phi_{it})^{1-d_{it}} \phi_{it}^{d_{it}}] \times [LN(y_{it}; \mu_{it}, \tau^2)]^{d_{it}} \quad (3.1)$$

$$\text{Probit}(\phi_{it}) = \mathbf{x}'_{it}\boldsymbol{\alpha} + \mathbf{z}'_{it}\boldsymbol{\gamma} + \mathbf{b}_{1i}$$

$$\mu_{it} = \mathbf{x}'_{it}\boldsymbol{\beta} + \mathbf{z}'_{it}\boldsymbol{\eta} + \mathbf{b}_{2i} + (\text{Year})\mathbf{b}_{3i}$$

$$\mathbf{b}_i \sim N_3(0, D)$$

$$D_{3 \times 3} = \begin{bmatrix} D_{11} & D_{12} & D_{13} \\ D_{21} & D_{22} & D_{23} \\ D_{31} & D_{32} & D_{33} \end{bmatrix}$$

where

- $y_{it}$  is the  $t^{th}$  spending allocation for municipality  $i$  ( $t = \{1, \dots, n_i\}$ )
- $d_{it}$  is an indicator that  $y_{it} > 0$ , and  $\phi_{it} = Pr(Y_{it} > 0)$
- $\mathbf{x}'_{it}$  and  $\mathbf{z}'_{it}$  are  $p \times 1$  and  $2 \times 1$  vectors of fixed and random effect covariates
- $LN(\cdot)$  is lognormal density evaluated at  $y_{it}$ , with mean  $\mu_{it}$  and precision  $\tau^2$
- $\boldsymbol{\alpha}$ ,  $\boldsymbol{\beta}$ ,  $\boldsymbol{\eta}$ , and  $\boldsymbol{\gamma}$  are fixed effect coefficients.
- $\mathbf{b}_i$  is a stacked vector of random effects for municipality  $i$ , with covariance  $\Sigma$ . I allow that  $\mathbf{b}_{1i}$  and  $\mathbf{b}_{2i}$  are correlated to capture possible dependence

between the two parts of the decision process that I am modeling.  $\Sigma$  contains up to six parameters to capture this dependency.

When  $d_{it} = 0$ , the only contribution to the likelihood is the first term in equation 3.1 — the probit probability that no allocation was made to municipality  $i$  at time  $t$ . When  $d_{it} = 1$ , the second term is activated and the contribution to the likelihood includes both the probit probability that spending occurs and also the value of the log-normal density at the level of observed spending. The model that I present here can be viewed as a three-level hierarchical model where the components or stages are modeled stochastically. It is a two-part model for semicontinuous data with random intercept for municipalities and random slopes for time in which the variance-covariance matrix of the random effects includes cross-covariances between the random effects of the two components. As inspection of the likelihood reveals, if the correlations were zero, the likelihood would be separable and the probit and the log-normal parts of the two-part model could be estimated separately. However, because the same unobserved factors are likely to affect each of the two parts of the allocative choice, I do not assume these correlations are zero and estimate the two-parts of the model jointly (Neelon, O'Malley and Normand, 2011).

A two-part mixed model with correlated random effects, like the one presented here, is an attractive approach to characterize the complex structure of longitudinal semicontinuous data. Since we have a fully specified likelihood, it would be natural to compute maximum likelihood estimators for the parameters  $\alpha$  and  $\beta$ . It would also be natural to compute asymptotic approximations of standard errors exploring the Hessian matrix. However, there is no guarantee that the likelihood will be log-concave, and hence, finding the global maxima tends to be difficult (Geyer and Thompson, 1992).<sup>9</sup> Given the computational challenges

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<sup>9</sup>The use of maximum likelihood could still be reasonable. The validity and its justification, however, depend on asymptotic arguments whose strength depend upon the case. To evaluate

to fit these complicated models to longitudinal data using maximum likelihood, and to avoid problems with algorithm convergence, I estimate the model using Bayesian Markov Chain Monte Carlo (MCMC). By sampling rather than optimizing, MCMC makes estimation and inference simpler (Jackman, 2000). First, the Bayesian methods are well suited to the large number of parameters to be estimated in each part of the model and the hierarchical structure that the data presents (Browne and Draper, 2006).

In addition, I would like to incorporate all information available to deal with my research question. The Bayesian approach employed here also gives me the opportunity to incorporate informative priors from in-depth interviews conducted with political elites in Argentina, Brazil, Mexico, and Venezuela into my quantitative analysis. As advocated by Gill and Walker (2005), the elicitation of priors has the potential to tie together ‘the seemingly antithetical research approaches of qualitative area studies with data-oriented work based on statistical methods, perhaps then mending a recent rift in political science.’ To combine fieldwork information collected through interviews (qualitative) with fiscal records (quantitative), as well as to ensure a well-identified model with proper posteriors, I pursued a systematic procedure to recover elicited priors for the quantities in which I am most interested.

#### **3.3.4.1 Eliciting Priors: Representing Political Elites Knowledge**

Elicitation is the process of estimating a person’s knowledge and beliefs about one or more uncertain quantities. The result of elicitation is a (joint) probability distribution over those quantities that characterize the person’s beliefs. In the context of Bayesian statistical analysis, elicitation arises most often as a method

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the quality of the maximum likelihood I would have to code a bootstrap process to reproduce the data generating mechanism, which in this case will be too complex. I chose not to do it here, but to leave this for a future project.

for specifying the prior distribution for one or more unknown parameters of a statistical model. In this context, the prior distribution will be combined with a statistical model and data through Bayes' theorem to derive a posterior distribution. The literature on elicited priors is large and the justifications for using it abound (Garthwaite, Kadane and O'hagan, 2005; Gill and Walker, 2005; Kuhnert, Martin and Griffiths, 2010). One of the most frequently cited reasons to pursue it has to do with the fact that elicitation brings the analysis closer to the application by demanding attention to what is being modeled, and what is reasonable to believe about it. Further, elicited priors help researchers to read better conclusions when the quantitative data themselves are not necessarily trustworthy, but also when the data contain missing values that are not missing at random (Western and Jackman, 1994; Jackman, 2009).

Bayesian inference is relatively new in political science and there have been only a handful of instances of the use of informative priors (Gill and Walker, 2005; Jackman, 2004; Western and Jackman, 1994). These papers highlight the substantive value of using elicited priors because the 'expert' views are tempered by actual data through the mechanics of Bayesian inference and produce more substantively comprehensive estimates of our quantities of interest. Otherwise, the best that we can do is describe such opinions anecdotally or with imprecise summary impressions because the number of available experts typically insufficient for standard statistical analysis. As noted by Gill and Walker (2005), 'elicited priors can be a means of systematically integrating qualitative and quantitative empirical work in political science, thus reaching across a traditional divide in the discipline.' In comparative politics, this could be a solution for systematically integrating the qualitative information we discover during fieldwork with the quantitative information we collect from various sources. Analyzing data to reveal political allocation strategies offers an opportunity to employ a Bayesian estimation incorporating politicians' own beliefs about how they do things. In other words, the



joint use of quantitative data and qualitative information gleaned from fieldwork can provide a way to evaluate whether what politicians say is compatible with what they indeed do.

I follow a standard procedure to produce elicited information from politicians: (1) I selected the expert(s) and identified the quantities of interest, (2) I elicited specific summaries of the experts' distributions over those quantities, (3) fitted a (joint) probability distribution to those summaries, and (4) assess the adequacy of the elicitation. I interviewed academics, politicians, and public officials from the national and subnational levels of government in Argentina, Brazil, Mexico, and Venezuela, including President Cristina Fernandez de Kirchner (Argentina), former presidents Luis Inacio Lula da Silva and Fernando Henrique Cardoso (Brazil), and the former vice president of Venezuela Elias Jaua. For the coefficients that I did not have expert priors, I use estimates from other papers that had estimated the effects of, for example, poverty, GDP, and the other control variables on presidential discretionary allocation in these four countries (Brollo and Nannicini, 2012; Penfold-Becerra, 2004; Armesto, 2009; O'Neill, 2006).

It is often asserted that fiscal, inflation, and social data in centralized Latin American countries have been manipulated by its governments (Business Insider, 2012; The Economist, 2012). As fiscal information is often believed to be inaccurate, I was interested in acquiring some qualitative information about the process of presidents' allocations in Argentina, Brazil, Mexico, and Venezuela. I wanted to contrast the experts beliefs about discretionary allocation for political advantages with the actual data on political decisions about investments (Jackman, 2009). I directly asked my interviewees for a 'guess' about the chances and the levels of spending presidents allocated to the four types of municipalities describe before (core districts, core districts with rivals, opposition district with ally, opposition district). This information served as a reference for the mean values to my quantities of interest:  $\alpha$  and  $\beta$ .

As I conducted several interviews, I pooled the guesses using a logarithmic opinion pooling method (Garthwaite, Kadane and O'hagan, 2005). I also asked the experts for a measure of the uncertainty of their estimates, an upper and lower bound, which I used as a reference in a range method to find the level of precision for the estimates of priors. I recognize, however, that I am using a non-conservative measure for the uncertainty because experts tend to overestimate uncertainty values for very large intervals (Weiss, 2012).

Brazilian experts believe that municipalities with the plurality of voters supporting the president and the mayor from her party are the ones that receive the largest investments. Note, however, that this distribution mostly overlaps with the prior distribution for municipalities governed by the president's party — the PT — but without the plurality of voters supporting the president. The expert priors for the probit part of the model follow the same order as the priors for the lognormal effects. The most remarkable feature of these latter distributions, however, is that the prior for municipalities governed by the PT without electoral support for Lula has very low precision; it is the only non-informative prior in the case of Brazil.

For Mexico, the experts' priors for the volume of resources invested in the municipalities follow this order: (1) municipalities with the plurality of voters supporting the president's party — the PAN — in the presidential election and with a PAN mayor; (2) municipalities governed by PAN but without majoritarian support for the president; (3) municipalities in which voters mostly voted for PAN in the presidential election, although the mayor is from an opposition party; and (4) municipalities not governed by PAN or supporting the PAN president. Different from Brazil, the experts' information in Mexico leads to more precise and non-overlapping distributions. The exception is the prior distribution for PAN/Opposition municipalities. The priors on the likelihood that a municipality would receive federal investments have the same order as presented before, but

with highly overlapping tails.

For Argentina and Venezuela, the pooled experts' knowledge about the average level of resources invested by the federal government in municipalities composed two groups: the municipalities with and without presidential votes. Although the amount of overlap is substantial, it is possible to distinguish the two groups. The elicited priors for the probability of receiving any investments are less informative. Especially in Venezuela, it seems the experts believe that all types of municipalities have the same chance of receiving investments. In Argentina, voting for the Kirchners seems to increase the municipalities' chances of receiving resources, but the densities drawn from the elicited priors overlap enough to decrease our prior knowledge about the government disbursements.

## **Who Is the Target of Presidential Allocation?**

In this section, I assess the main implication of my theory of discretionary allocation, combining the qualitative and the quantitative information collected during my fieldwork through a Bayesian estimation approach. Again, if strong local politicians (i.e., in more decentralized countries) are able to affect whether or not the president can fulfill her agenda, the president should use his discretionary power to allocate proportionally more resources to municipalities governed by co-partisan mayors, who tend to be his most loyal agents. By contrast, if weak local politicians cannot steal political credit or siphon resources from the president and have less power to help or hurt him electorally, as in centralized systems, then we should observe the president allocating resources where his own core voters are settled, regardless of the local mayor's party affiliation.

Table 3.3 presents the coefficients from the Bayesian two-part model. The coefficients corresponds to the estimates from the probit model. Table 3.4 contains the results from the log-normal model. Each column presents outcomes for one of

		Brazil	Mexico	Argentina	Venezuela
Probit	Core District	0.55 (0.08)	0.49 (0.08)	0.72 (0.06)	0.67 (0.04)
	Core Dist. with Rival	0.35 (0.03)	0.31 (0.08)	0.55 (0.09)	0.63 (0.09)
	Oppos. Dist. with Ally	0.56 (0.03)	0.48 (0.10)	0.41 (0.03)	0.22 (0.10)
	Opposition District	0.23 (0.03)	0.33 (0.04)	0.22 (0.09)	0.29 (0.07)
	GDP cap	-0.35 (1.00)	-0.52 (0.44)	-0.21 (2.48)	-0.10 (3.08)
	Poverty Rate	-0.71 (8.55)	0.26 (1.96)	0.12 (3.18)	0.78 (0.64)
	Electoral Constituency	-0.25 (0.87)	0.19 (1.89)	0.03 (0.79)	-0.17 (1.12)
	Benefitted by CCT	-0.31 (2.38)	-0.25 (1.33)	-0.58 (2.57)	-0.82 (0.60)
	President's Constituency	0.05 (0.91)	0.05 (3.16)	0.14 (0.31)	0.32 (2.21)
	Mandatory Resources	-0.35 (0.37)	-0.17 (0.10)	-0.29 (0.16)	-0.09 (0.07)

**Table 3.3:** *Posterior estimates and standard error of presidential discretionary spending from probit regressions, Argentina, Brazil, Mexico, and Venezuela (2000-2011).*

the countries analyzed here. I start analyzing the results from the first part of the model that estimate the probability that a municipality would receive any spending at all. Across all specifications, municipalities with presidents' co-partisans in decentralized systems are associated with a higher propensity to receive federal allocations, whereas municipalities with more of the presidents' core voters in centralized systems tend to have a higher propensity to receive national investments. These results are statistically significant and substantively meaningful

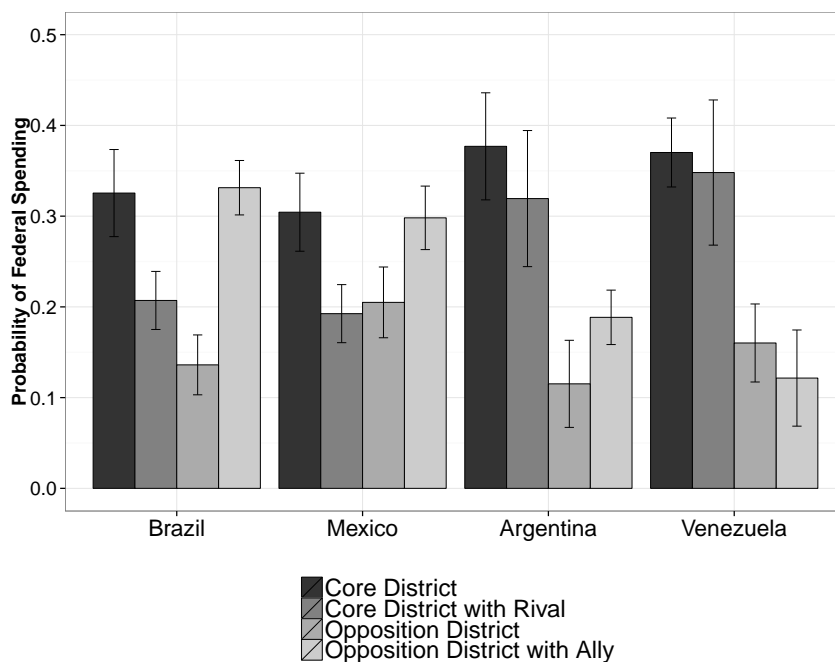
		Brazil	Mexico	Argentina	Venezuela
Lognormal	Core District	27.6 (3.29)	29.6 (2.29)	26.3 (1.65)	28.3 (4.89)
	Core Dist. with Rival	13.5 (1.93)	16.5 (0.92)	20.1 (0.81)	23.4 (1.69)
	Oppos. Dist. with Ally	24.5 (1.83)	22.9 (1.50)	17.2 (1.36)	12.9 (0.89)
	Opposition District	2.6 (1.59)	3.8 (1.73)	9.7 (3.54)	6.5 (3.08)
	GDP cap	-7.89 (1.22)	-1.98 (5.08)	-3.54 (6.12)	-9.14 (4.68)
	Poverty Rate	1.23 (0.10)	6.63 (0.87)	1.76 (1.11)	2.57 (0.42)
	Electoral Constituency	-3.78 (3.19)	-7.74 (2.67)	-0.29 (3.21)	-0.98 (4.33)
	Benefitted by CCT	0.09 (0.01)	-2.01 (2.87)	-6.92 (3.21)	-1.50 (0.34)
	President's Constituency	3.90 (1.75)	-0.01 (0.99)	7.65 (2.12)	7.32 (3.91)
	Mandatory Resources	-6.75 (4.83)	-4.19 (2.45)	-9.73 (4.13)	-6.21 (2.76)
	Mayor's Vote Share	Yes	Yes	Yes	Yes
	Governor's Political Party	Yes	Yes	Yes	Yes
Year Fixed Effects		Yes	Yes	Yes	Yes
Number of Cases		43,978	31,374	23,357	3,759
MCMC Iterations		80,000	84,000	82,000	90,000

**Table 3.4:** *Posterior estimates and standard error of presidential discretionary spending from lognormal regressions, Argentina, Brazil, Mexico, and Venezuela (2000-2011). I exponentiated the lognormal coefficients.*

when different municipal profiles are considered. When these political factors are taken into account, conventionally important variables such as municipality poverty rate, municipality GDP per capita, and number of municipal beneficiaries

of conditional cash transfer programs present effects indistinguishable from zero.

Figure 3.4 reports the propensity effects from the estimated posterior distributions. For the propensity to receive any expenditures, the estimates show striking effects across the municipal categories. The estimates indicate that Brazilian and Mexican municipalities governed by presidents' co-partisans had as much as a 35 percent chance of receiving federal investments. The same types of municipalities in Argentina and Venezuela had higher chances when voters are also presidents' supporters (roughly 40 percent), but lower chances when voters supported the opposition candidates in the presidential elections (range from 6 to 22 percent).



**Figure 3.4:** *Estimated Propensity of Presidential Discretionary Investments per capita for Municipalities of Different Political Support, Argentina, Brazil, Mexico, and Venezuela.*

These results are consistent with the elicited priors discussed before and corroborate the importance of decentralization in the politics of the region. Both

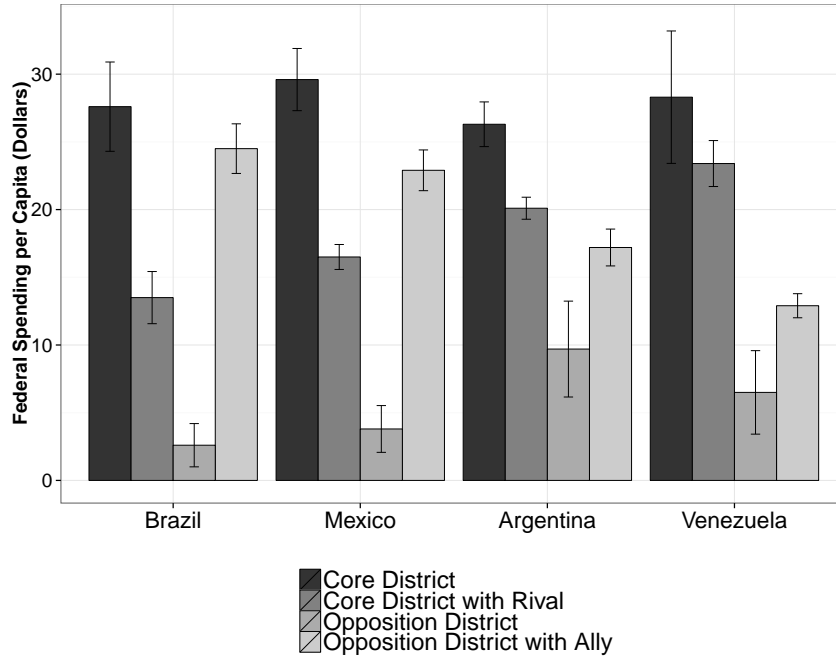
the Kirchners' and Chavez's governments have been described by experts and the media as very centralized, with holders of local offices switching to the president's party to receive national help. In Mexico, the necessity to change the local dominance of the *Partido Revolucionario Institucional* (PRI), given its traditional power, seems also to be consistent with the higher propensity for PAN presidents to target only their allies. In Brazil, besides the relevance of decentralization, the fact that the PT was the most ideological political party in the country, and not in power for three decades, also helps explain the president's need to divert resources from the support bases of traditional ruling parties.

Controlling for poverty levels, legislators' electoral constituencies, and for many other important covariates, there are, then, important differences across municipal configurations for the probability of receiving investments. The effect of a co-partisan mayor in a decentralized setting is positive and substantially large. The effect of having the plurality of voters in a municipality in centralized countries is positive and large. Moreover, there is no significant difference between municipalities without or with presidential voters in decentralized systems, indicating mayoral partisanship trumps local presidential vote share for resource allocation decisions. In order to target core voters, the results suggest, presidents in Brazil and Mexico prefer to do so mostly where they have a co-partisan in the city hall.<sup>10</sup> In Argentina and Venezuela, the conclusion is the opposite. Voters seem to be the first concern of presidents when deciding on the allocation of discretionary results, and the partisanship of mayors appears to be less relevant.

Next, I assess the average volume of investments each municipality receives, conditional on it having received something. The results are also consistent with

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<sup>10</sup>One interesting exception, however, is São Paulo. Even though it has been controlled by Lula opponents for 10 years, Lula has disbursed a lot of resources there in order to guarantee benefits to such voters. PT has been doing everything to persuade voters to elect a PT mayor again.



**Figure 3.5:** *Estimated Amount of Presidential Discretionary Investments per capita for Municipalities of Different Political Support, Argentina, Brazil, Mexico, and Venezuela. I exponentiated the estimated values to report meaningful values here.*

what we have observed for the probit models (see Figure 3.5). The effects for each municipal profile are straightforward to interpret. I exponentiated the estimated coefficients to report meaningful values here. In a hypothetical district within a decentralized system where voters support the president, the presence of a co-partisan mayor increases by \$15 per capita the amount a president invests in a municipality. In a centralized setting, when president's core voters are a plurality but the mayor is from a party different than the president's the difference of presidential spending estimated is only \$5. When we compare two hypothetical districts governed by co-partisans of the president, one whose voters supported the president and the other whose voters did not, we observe a small difference in the amount of presidential expenditures when they are in decentralized systems,



but a difference of \$14 per capita in centralized systems. Municipalities with allies receive, on average, a much higher volume of transfers than municipalities with opposition mayors in decentralized systems, regardless of the vote pattern observed there; whereas municipalities with the plurality of presidential voters are the main target in centralized systems, regardless of mayor's party alignment.

Different than with the probit model results, it is possible to distinguish the pattern of allocation between municipalities in the four countries using the log-normal posterior distributions. There is a clear centralization-based ordering of municipality types in terms of the level of investments each receives. In decentralized countries, the order is as follows: core districts, opposition districts with ally, core districts with rival, and opposition district. Core districts tend to receive \$30 per capita and opposition districts with an ally, on average, \$22. This difference is not large, suggesting the importance of allies in determining the volume of federal investments a municipality receives. Core districts governed by president's rival party receive, on average, \$15 per capita, but opposition districts only \$4. For centralized countries, the middle two municipality types are switched: core districts, core districts with a rival, opposition districts with an ally, and opposition district.

In comparison to the decentralized countries, the only categories which magnitudes of spending change considerably are core districts with a rival and opposition districts with an ally. In Mexico, for example, opposition districts with an ally receive more spending than core districts governed by a rival party. Whereas the former receives \$24 per capita, the latter only receives \$17. In Argentina, opposition districts governed by a presidential ally receive, on average, \$18 per capita, and core districts governed by a rival party \$20. The magnitude difference is not as large as in Mexico, but the difference is statistically significant.

The results presented here are not only statistically significant, but are substantively important as well. For instance, in a decentralized country a change to

a president's mayor is estimated to have the same effect on municipal spending as a 9 percentage-point increase in municipal poverty rate. To have a reference of the magnitude of this difference, it is equal to the poverty rate difference between Bento Gonçalves (Rio Grande do Sul) — a very rich city in the South of Brazil — and Macurure (Bahia) — one of the poorest cities in the Northeast of Brazil. These voters are being deprived because they are not governed by president's loyal allies. By contrast, in a centralized country a change to a president's mayor is estimated to have the same effect on presidential spending as a 2.5 percentage-point increase in municipal poverty rate. This difference is so small that it does not even amount to the difference in poverty levels of the richer and the upper-level middle class in Buenos Aires (Argentina).

This picture is remarkably different in centralized countries by the variation of the municipal presidential support. A change to support Hugo Chavez in the presidential election is estimated to have the same impact on presidential spending as a 6 percentage-point worsening in the municipal poverty rate of a municipality. The amount of resources spent in municipalities in which the plurality of voters support Hugo Chavez is equivalent to transfer half of Caracas population to poverty just at once. In Mexico, increasing the electoral support a president has in a municipality, by contrast, corresponds to an increase in spending that is equal to a 1 percentage-point increase in the level of poverty of a municipality — not a substantial difference. These different magnitudes are due to the president's ability to target voters directly in centralized countries, but his fear of producing political credit for local adversaries in decentralized settings.

### **3.3.5 Elicited Priors vs. Data in the Bayesian Framework**

These results highlight not only the relevance of decentralization to explain political allocations in Latin America, but also the value of using elicited priors in political science. The prior beliefs that I elicited throughout interviews suggest

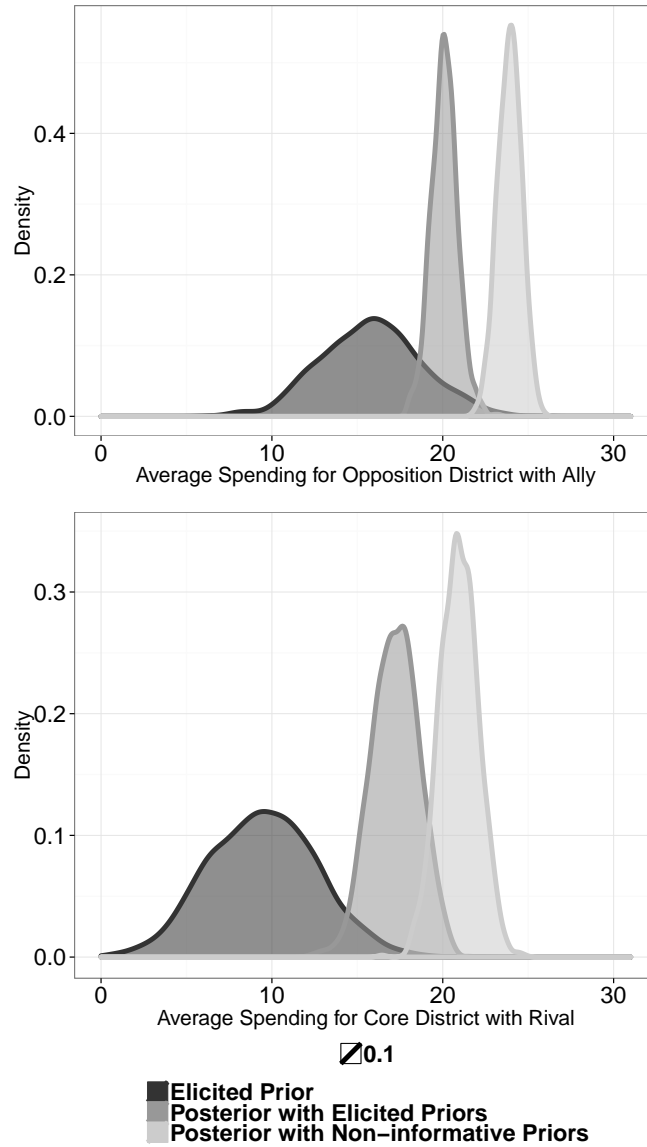
that loyalty in the municipalities is a good indicator of discretionary distribution. The difference is that in centralized countries, a president can disburse resources to voters directly, whereas in decentralized settings, she depends on loyal mayors to reach voters. This is possible to detect because the political elites' expressed views are tempered by actual data on discretionary allocation through the mechanics of Bayesian inference. On the one hand, without the actual spending data, we could only anecdotally report the politicians' and staff members' opinions because the number of available experts is insufficient for standard statistical analysis. On the other hand, without the elicited priors, we might rely too much on a particular draw of data and estimation technique. As always, qualitative and quantitative approaches complement each other, but the modeling technique used here brings the qualitative data to bear in a systematic and transparent way, instead of merely relegating it to the role of impressionistic reality check, as is so common in the field.

A posterior distribution summarizes our knowledge about the quantities of interest in Bayesian analysis. Analytically, the posterior density is the product of the prior density and the likelihood estimated from the quantitative data. Using elicited information requires careful decisions though (Gigerenzer, 1996). As highlighted in Burgman (2005), the perception of experts is inevitably subject to bias and depending on the nature of that bias, their opinions may influence the model estimates. It is therefore important to be aware of the impact that priors can have on models as this may influence our conclusions. There are several scenarios that can arise when combining the likelihood with priors generated from expert opinion. The amount of data, the mean value, the precision and the way in which the prior mean and precision are captured and incorporated into a model can influence the posterior estimate. In situations where data are limited, the expert's expressed opinion has the potential to drive model predictions. When data is abundant, by contrast, the priors tend to play a less critical role.

In most of the above analysis, the informative priors are just improving the precision of the estimates. Including them does not change the direction or the substantive interpretation at all. But there are also the instances in which the conclusions do change from null to positive or from positive to null when non-informative priors are used.

Figure 3.6 presents the case in which results become more conservative, and therefore stronger, when the elicited priors are employed. The figure presents the estimated average amount of spending the presidents in Argentina disburse for municipalities governed by opponents but with the plurality of presidential voters (bottom), and for municipalities with the majority of opposition voters but governed by a president's ally (top). The conclusion one takes from the results with noninformative priors does not change when compared to the outcomes using the priors gleaned from the interviews. However, the elicited priors make the conclusions more moderate. Whereas the results using noninformative priors estimate averages of presidential discretionary spending of magnitude \$24 and \$21 per capita, respectively; the results contemplating the expert beliefs estimate averages of spending of magnitude \$20 and \$17, respectively.

But there is another case in which the elicitation has helped in distinguishing between the middle categories. Figure 3.7 presents prior, likelihood, and posterior distributions for the average amounts of presidential allocation in Venezuela among municipalities with pro-government voters but opposition mayors (bottom) and municipalities with opposition voters but co-partisan mayors (top). Note how the prior distribution pulls the posterior to the right in the municipalities with opposition voters and co-partisans of President Chavez, whereas the prior distribution pulls the posterior to the left in the municipalities with Chavez's voters but opposition mayors. For the opposition districts governed by a *chavista* mayor, the Bayesian approach with elicited priors produces an estimate that is higher than the data alone would have produced, but lower than what I would have estimated



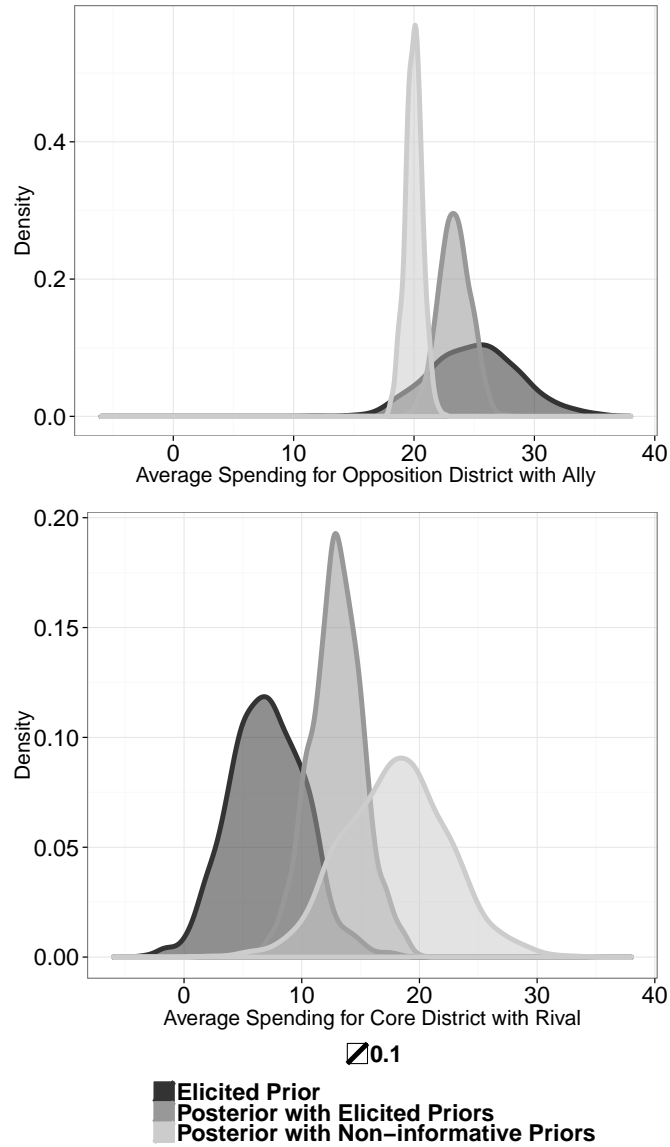
**Figure 3.6:** *Prior, Likelihood, and Posterior Distributions for the Average Amounts of Presidential Discretionary Allocations to Municipalities with municipalities with opposition voters but co-partisan mayors (top), and pro-government voters but rival mayors (bottom). Argentina (2003 - 2010).*

from the interviews alone. The opposite is the case for the *chavista* electorate — core district — governed by a non-chavista mayor. Moreover, the Bayesian estimates are more precise than either data source alone could have produced in

both cases. This is one instance in which elicitation allows the researcher to learn more from the data. In most of the posterior estimates in this paper, however, the priors are just helping the estimation be more efficient, not changing the direction or the substantive effects at all.

Although for the most part the incorporation of the elicited priors does not contradict the information in the data, there are some instances in which the expert knowledge influences the outcome distinguishing the levels of spending by municipal type. The choice to present the posterior results with elicited priors and not the noninformative ones relies on two arguments. First, the critique of the use of elicited priors in the Bayesian paradigm is reasonable when small samples are being analyzed. In the analysis reported here, the majority of the weight is automatically assigned to the data, given its sample size. Overall, I am analyzing more than 100,000 data points. Second, given the frequently expressed doubts about the reliability or completeness of official government data in some Latin American countries, either due to politically motivated massaging or to important, unofficial flows of resources; talking to people in a position to know and treating their answers as evidence can help us to evaluate the observational data with the proper circumspection.

Finally, a word of caution. Regardless of the appeal of these results, we cannot conclude that these patterns reflect a true causal effect of presidential support in the municipalities — they could be biased by some omitted variable that is associated with both president’s party’s electoral success in the municipalities and higher transfer rates. Although the inclusion of municipal fixed effects could absorb time-invariant factors that operate within regions, and the year dummies should account for broad temporal trends affecting the whole country, these statistical adjustments provide only a partially satisfying response to such concerns. Recognizing the causal limitations of my work is necessary to properly value the



**Figure 3.7:** *Prior, Likelihood, and Posterior Distributions for the Average Amounts of Presidential Discretionary Allocations to Municipalities with municipalities with opposition voters but co-partisan mayors (top), and pro-government voters but rival mayors (bottom). Venezuela (2000 - 2011).*

contribution of the model discussed here.

As robustness checks, I tried matching, fixed effects, and difference-in-difference models in the Brazilian data. With these non-parametric modeling approaches, I

found similar results to those presented here. To mitigate the possibility of selection bias and reduce model dependence, I use matching to achieve balance between treatment (co-partisan mayors) and control groups across all observed covariates. Matching seeks to create a sample of treatment group observations that look as similar as possible to the control group. Balance between treatment and control groups allows analysis that is less sensitive to choices of functional form and model selection while also reducing bias and variance (Ho et al., 2007). Having identified a matched sample, I then ran analyses to estimate the treatment effect of PT power on municipal transfers. The coefficient on the PT treatment indicator was positive and statistically significant in every specification. The fact that PT mayors are effective at getting transfers for municipalities may reveal both their ability to persuade the president, and the presidential interests in maintaining and expanding PT influence in Brazilian municipalities. The evidence explored here is coherent, no matter what methodological strategy is pursued. But more important, these findings set forth a novel research agenda that will build on the empirical patterns observed here.

### **3.4 Conclusion**

In this chapter, I document the existence of tactical motivations in the allocation of federal transfers by the central government in four federal countries, aimed at targeting president's core voters. I demonstrate how presidential strategies about discretionary spending are conditioned by the extent of governmental decentralization. Presidents in decentralized countries tend to target municipalities governed by co-partisan mayors, even when such municipalities are abundant in opposition voters. Presidents in centralized systems tend to distribute resources to municipalities with the plurality of core voters, even when such municipalities are governed by president's political rivals. In a decentralized system, the politi-



cal benefits of federal spending accrue not just to the president, but also to local politicians. If powerful local politicians from parties different from the president's have access to resources, it is likely they will make voters believe their parties are responsible for the investments observed. This is a real threat to the president, as he is wasting resources strengthening rivals.

I believe that my results could extend to the politics of intergovernmental transfers in every presidential system where the president is strong, but has lost some budgetary authority. Particularly, my argument should apply where (a) the central government has some discretionary power in sharing central revenues among lower-level layers of government; (b) political credit spillovers exist between central and local governments in claiming credit for the transfers; and (c) political parties are not extremely weak and partisan affiliation shapes electoral competition at the local and national level. Perhaps, these results could also extend for other federal or unitary systems which levels of political, administrative and fiscal decentralization are high. The decentralized Bolivia, Colombia, and Peru should display discretionary spending being delivered to the presidents' local allies, whereas it should be possible to observe presidential voters targeted in the centralized Chile.

The evidence presented here shows that discretionary transfers in federal systems are allocated on political grounds even controlling for alternative explanatory variables for efficiency and equity. It is not that political factors explain all presidential choices. But the fact that many municipalities in Brazil and Mexico, as well as in Venezuela and in Argentina, do not receive these discretionary funds despite having considerable levels of poverty, seems to suggest a special role that the political motivations play in determining presidential discretionary transfers. If one believes that redistribution should be a goal for newly inaugurated left presidents, then, the normative implications of my empirical findings call for a spending system that emphasizes constitutional rules based on necessity, rather than let the

fiscal responsibility be with central governments, as they appear to be strongly influenced by political considerations. The results also suggests that presidents do not use public goods allocation to build legislative majorities in Congress, as voters and mayors political alignments to the president seem to matter more in explaining presidential allocative decisions.

From a more general perspective, my study emphasizes that (a) whoever allocates benefits may care about electoral outcomes at all levels, (b) capturing the top prize of the presidency in a decentralized context, although necessary, is not sufficient for a party interested in implementing a distributive agenda and enjoying the electoral benefits of it, and (c) conflictual political interests in multi-level systems may produce inefficient or slower changes. These emphases allow me to disclose a systematic intergovernmental pattern, namely, that presidents neglect core voters governed by opposition mayors in decentralized systems. But it also present a novel interpretation of federal politics, that is to say, the recognition that policy changes can be harder when politically motivated actors face decisions that not necessarily give them political credit. Hence my approach suggests that various theoretical models of distributive politics may benefit from taking a multilevel view.

The next steps of this research agenda involve mainly the investigation of the mechanisms to justify the actor's decisions laid out here. We need to investigate if voters respond to targeted spending by rewarding the politician they believe is responsible for the provision of the benefits they care most about. In other words, how do voters assign political credit for politicians when more than one officer has the legitimate authority to claim credit for outcomes observed locally? I test this mechanism in the next chapter.

## CHAPTER 4

# Whom do Voters Reward? Experimental Results for the Credit-Claiming Battle in Federal Systems

### 4.1 Introduction

The electorate's capacity to reward or sanction incumbent politicians is one of the defining features of democracy (Przeworski, Stokes and Manin, 1999). The retrospective voting theory (Fiorina, 1981) suggests that 'voters use the past performance of the government to predict future performance and see the government as responsible for that performance' (Stokes, 2002). The existing research on retrospective voting primarily focuses on the effect of GDP, unemployment and inflation, on the electoral performance of incumbent parties (Roberts and Wibbels, 1999). Voters, however, care not only about such macroeconomic outcomes but care also about the more immediate policies that produce such outcomes (Lora et al., 2005). Similarly, voters care not only about national outcomes, but sub-national outcomes too (Anderson, 2006; Atkeson and Partin, 1995; Carsey and Wright, 1998; Remmer and G  lineau, 2003). Moreover, scattered throughout the literature is evidence that voters tend to take into consideration particular policies such as the distribution of public expenditures when evaluating incumbents.

Compared to the vast literature on economic voting, however, research on the electoral effects of public expenditures remains thin. Much of the work in this

line of research focuses on explaining the first half of the puzzle about the allocation of public monies (Nazareno, Stokes and Brusco, 2006). The few exceptions addressing electoral consequences of transfers paint a mixed picture. While some studies find that certain types of transfers benefit incumbents electorally (Levitt and Snyder Jr, 1995; De La O and Lorena, 2007; Manacorda, Miguel and Vigorito, 2009), other studies find that some transfers have no impact on incumbents' vote shares.

Powell and Whitten (1993*b*) argue that voter capacity to sanction or reward is strong when 'clarity of government responsibility' for outcomes is clear, and vice versa. As originally sketched, clarity of responsibility was mostly an argument about the horizontal relationship between the executive and legislative powers. Briefly, the argument is that factors such as multiparty rule, cabinet instability, opposition's influence on the policymaking process, and party fragmentation diffuse the responsibility for economic outcomes, and thus confuse voters as to whom to punish or reward electorally (Anderson, 2000).

Recent research has explored the vertical dimension of clarity of responsibility by studying multi-level governments. In such institutional contexts, the process of correctly assigning responsibility for economic outcomes and policies can be difficult. Indeed, blame shifting and credit taking between different levels of government as well as increased information demands on citizens created by these institutions can combine to blur lines of responsibility. In this line of research, the current view is that clarity of responsibility is a function of the number of politicians involved in the policymaking process such that the more policymakers, the more confusion about who is to be blamed or rewarded (Anderson, 2006).

Confusion among voters, however, can arise independently from the number of policymakers involved in the design, and even implementation, of a policy (Arulampalam et al., 2009). Conversely, there are instances where, despite having two layers of government, voters are not confused. For instance, in cases where a

single party represents a geographical area, even if there is more than one layer of government, voters face a simpler decision to reward or punish the incumbent party. Electoral accountability, then, is not only a function of the number of policymakers but perhaps more importantly of the number of political parties that represent a geographical area (Ansolabehere and Snyder, 2006*b*) and the strategic concealment and manipulation of information about policy responsibility.

Bruhn and De La O (2009) have argued that part of the answer for the greater or lower levels of accountability in federal systems has to do with the alignment between the center-level incumbent and the state-level incumbent parties and part of it has to do with the credit claiming that takes place through parties' campaign efforts. They find evidence that governors' parties benefited electorally from a transfer scheme from the central government to the state and local governments in Mexico aimed at improving private and public infrastructure in the poorest municipalities of the country. They argue that parties' campaign efforts determine which parties gain votes due to the program, suggesting that credit claiming did happen in this context.

In this chapter I advance this literature arguing that voters do understand responsibilities about policy implementation. The institutional constraints imposed by the responsibilities of action shape voters' information about who is responsible for what, what makes them redefine expectations and, therefore, understand when a politician is trustable or not in their claiming for credit. Or in other words, voters do reward politicians based on their beliefs about who is more powerful to provide localized public goods. This is an important contribution because the argument that a politician can use budgetary discretion to gain votes for himself or his designated successor is based on the outcome-reward assumption that voters respond to targeted spending rewarding the politician they believe is responsible for the provision of the benefits they care most about. Such an assumption does not take into account, however, that voters may be exposed

to multiple (and contradictory) claims that might make it difficult for them to understand which politician is responsible for which outcome. This is especially true in federal systems where voters are governed by at least two independent authorities that can claim credit for outcomes without the agreement of the other tier of government. Demonstrating the effect of information in this case is crucial to make us understand the conditions under which each politician will make allocative decisions.

This chapter measures the effects of claiming credit on electoral evaluation of national and local governments taking into account the institutional level of decentralization, and the amount of information voters have. To test this claim, I conducted a unique survey experiment in Argentina, Brazil, Mexico and Venezuela between June and September of 2012 that, for the first time, explicitly and separately examines individuals' attitudes toward local and national governments when exposed to information about who is responsible for the provision of public goods in each country. In these nationwide surveys, I randomly assigned respondents to answer questions about government evaluation manipulating information about who is responsible for the goods provided locally, thereby obtaining an unbiased comparison between the distributions of attitudes toward local and national governments within each country when one or the other is said to be responsible.

More importantly, however, maintaining the same design across countries allows me to understand the role of the institutional setting, or the context, in producing the expected effects in each country. Conditional on the fact that Argentina and Venezuela have not decentralized their governments the way and to the extent that Brazil and Mexico did in the past few years, the survey experiments will help me understand how voters react to credit claiming by local and national politicians under centralized and decentralized settings. Since I am primarily interested in measuring the interactive effect of information with an institutional setting, making use of variation within and across four countries allow

me to hold constant other institutional factors that matter in explaining retrospective voting within each country, and make it vary the context in which the battle of claiming credit takes place. In particular, the voters in the analysis are all exposed to the same institutional context prone to diffusion of responsibility inside one country, but have different information beliefs across different contexts.

The experiment yields results that present a major advancement for existing political behavior models and the conclusions reached in many well-cited studies of attitudes toward national and local governments. The analysis of individual-level data helps to distinguish, on one side, when local governments are able to ‘steal’ political credit for the central government’s provision of public goods, and, on the other side, when the central government is able to maintain full political credit for its allocations. I find evidence that voters assign more political credit for local politicians in decentralized systems, whereas they tend to reward more the national politicians in centralized settings.

Understanding under what conditions voters reward or punish national or local politicians in federal systems (decentralized or not) is important on its own. When the source of the public expenditure is clear, voters can reward incumbents that improved their well-being. This gives incumbents incentives to continue such policies. On the contrary, the lack of clarity of responsibility ‘should insulate incumbents from the factors that cause them to lose votes.’ (Powell and Whitten, 1993) Thus, not only does electoral accountability suffer, but the system of representation also gets distorted.

In this sense, understanding the electoral dynamics of public expenditures, clarity of responsibility and credit claiming has an instrumental value too. We already learned that when parties at the center and state governments are not aligned, central incumbents have incentives to skew the distribution of resources toward geographic units where they can maximize credit claiming. In this chapter, we learn that this effect is mediated by the level of centralization observed in

different countries.

## 4.2 Decentralization and Local Politicians' *de facto* Power

To assess how clear is the responsibility for public goods and services' provision, it is necessary to understand how voters process political information. Zaller (1992) found evidence for the relationship between intra-elite discourse agreement (or disagreement) and the nature of public opinion. He explains this relationship in terms of different levels of political awareness among voters. Zaller analyzes, first, a case in which elites agree and achieve a consensus. In this situation the greater a citizens' level of political awareness, the greater the likelihood of reception of persuasive messages. If all of the messages on a policy were favorable, no one would have any basis for resisting it. From this he deduces that the greater a voter's level of political awareness, the greater the number of messages the voter can internalize in the form of possible truth and hence, all else equal, the greater the voter's level of expressed support for the policy or public good transmitted in such messages.

Next, Zaller analyzes an issue characterized by divisions in elite opinions. In that situation, increases in awareness will lead to increased reception of persuasive messages favoring all trustable positions in the political system. Since politically aware subjects will be likely to have information that enables them to see the implications of the messages they receive, they will be likely to reject the other side of arguments on an issue; these messages will not, however, impede their internalization of contradictory messages. Based on that, Zaller argues that when there is a roughly balanced flow of opposing partisan messages, more aware subjects will be more likely to call to mind considerations favorable to their position and hence will be more likely to support it. Less aware subjects will be less likely to recall arguments of any kind, which will lead to higher no-opinion rates, and



lower likelihood that they endorse one position or the other when they do offer an opinion.

Although none of these theories says anything about responsibility or message contradiction in multi-tier systems, their combination allows the formulation of an interesting implication. In decentralized systems, if an outcome is observed, and if voters choose retrospectively, then voters will tend to reward local politicians. In centralized systems, however, the bias is in favor of central governments, which will be more likely to be associated with benefits, even in a two-message setting. The reason behind this argument has to do with the fact that decentralization has empowered local politicians, and voters identify that because they followed what happened (and sometimes fought for it) after re-democratization. When political reforms take place in a short period of time, as it was the case of decentralization in Latin America, voters can remember the old status quo more easily and update their information given that they know - coming from the media or social interactions - that something has changed. The change create new expectations and new beliefs about what is ought to happen.

The discussion of economic, retrospective and clear voting leads me to surmise that in places with greater decentralization, the president cannot ensure that his local support will be maintained unless he can target the voters that elected him. Voters do not have complete information, and therefore, vote for whoever they think is responsible for the provision of benefits and goods they care about. In a system where no change was produced and presidents have always been important, such conditions should imply the prevalence of presidents over mayors in the credit-claiming game. In any other kind of environment, the expectation should be that presidents maintain most of the credit for what they are doing. Depending on who is the actual provider of specific outcomes, this would mean either agency loss to the president, or free-ride benefits to mayors. In a decentralized setting, the local politicians tend to be more exposed to rewards and criticisms.

As decentralization advances, it becomes more clear to voters that mayors are responsible for the services in their localities, and therefore, the better politicians to hold accountable. In a centralized context, however, sub-national governments are outside of the electoral spotlight, and therefore, they just extract private benefits from national outcomes if the message they convey is in accordance with the presidential one.

Following the arguments about information flow and institutional incentives, I test the following hypothesis:

H4 the effectiveness of credit claiming for national and local politicians depends on the country's level of decentralization. I expect, therefore, that if a country is decentralized, then local politicians will be able to get credit for what they claim, but national politicians will not. I also expect that if a country is centralized, then local politicians should not be able to get credit for what they claim, only national politicians can.

## **4.3 The Survey Experiment**

To capture the micro-foundations of my argument I ran four surveys that fulfilled two different research goals: (1) identify whom voters believe to be responsible for the provision of public goods in Argentina, Brazil, Mexico and Venezuela; and (2) demonstrate the differences among institutional settings that explain why mayors tend to receive credit when they claim it in Brazil and Mexico, but only presidents are rewarded for their claims in Argentina and Venezuela.

### **4.3.1 Survey Experiments in Comparative Politics**

Most of what we know about public opinion comes from the statistical analysis of cross-section survey data. Many perils attend efforts to infer causal relationships

from cross-sectional survey data, as statisticians and social science methodologists continue to document. Specific challenges include selection bias, spurious correlation, correlated measurement errors, censored data, the lack of true counterfactuals, and mutual causation (see, among others, Achen 1986; Fearon 1991; King, Keohane, and Verba 1994; Smith 1999; Brady and Collier 2000).

In light of the travails of conventional survey research, the advent of the survey experiment has been good news for students of public opinion. Researchers assign respondents randomly to control and treatment conditions, actively manipulating a treatment. The survey experiment is easy to implement and avoids many problems associated with cross-sectional survey data. It clearly distinguishes cause and effect. When used with representative samples, therefore, survey experiments can provide firmly grounded inferences about real-world political attitudes and behavior.

In political science survey experiments have been used for a variety of purposes. Sometimes, scholars conduct survey experiments for methodological purposes (Clarke et al. 1999). Others have adopted survey experiments to reduce social desirability effects when asking about sensitive social topics like race and sexual preference (Kinder and Sanders 1996; Hurwitz and Peffley 1997; Peffley, Hurwitz, and Sniderman 1997; Gilens 1999; Davis and Silver 2003). Most survey experiments address substantive rather than methodological topics. Some prime a particular thought or idea to determine how (or whether) the priming affects an opinion or attitude (Sniderman and Piazza 1993). Other survey experiments provide more or less information (Gilens 2001), evoke one motivation or another (Taber and Lodge 2006), or ask respondents either to think seriously before answering a survey question or to react to it viscerally (Kuklinski et al. 1991).

In this project I conducted four nationwide survey experiments in Argentina, Brazil, Mexico and Venezuela during the summer of 2012 in order to try to investigate differences within and across countries about voters attitudes toward local

and national governments. Although recognizing the limitations of this research strategy (Gaines, Kuklinski, and Quirk, 2006), it will help me to examine a very particular effect, which is the interaction between institutional variables and voters' information. This kind of work is unique in political science and pushes the method to its limits. Its relevance relies on the goal to extract causality in social sciences.

As it is known, only field experiments can intervene to change institutions, and many times they cannot change institutions that we care about. But individuals do not know about all aspects of institutions, or at very least, they are not salient in people's minds. To replicate how institutions affect behavior, we can make information about differences more salient. Lupu's (2013) branding experiment falls into this category: people are uncertain about the ideological positions of political parties, so he provides different information about the party's positions and assess the effect this information has on voter attitudes. Another example is Seawright's (2013) economic crisis experiment where people are given information about events that makes them angry (even though they are not occurring at the moment in their country), and they are asked to make political decisions.

The problem with these solutions emerge when we want to understand the effect that certain kinds of institutions have on voters attitudes or beliefs in different countries. The best we can do in this scenario, therefore is to appeal for a comparative resolution. Individuals live under different institutions and so may react differently to treatments in theoretically structured ways. The institution is almost like an intervening variable: it should mediate reactions to treatments. If we believe this to be true, it would be possible to advance in the knowledge about institutional effects randomly assigning homogeneous treatments in different countries and observing how each group of voters react to it under different institutional scenarios. This research strategy allow us to identify causal effects from institutional settings that traditional surveys would not allow.

### 4.3.2 Design

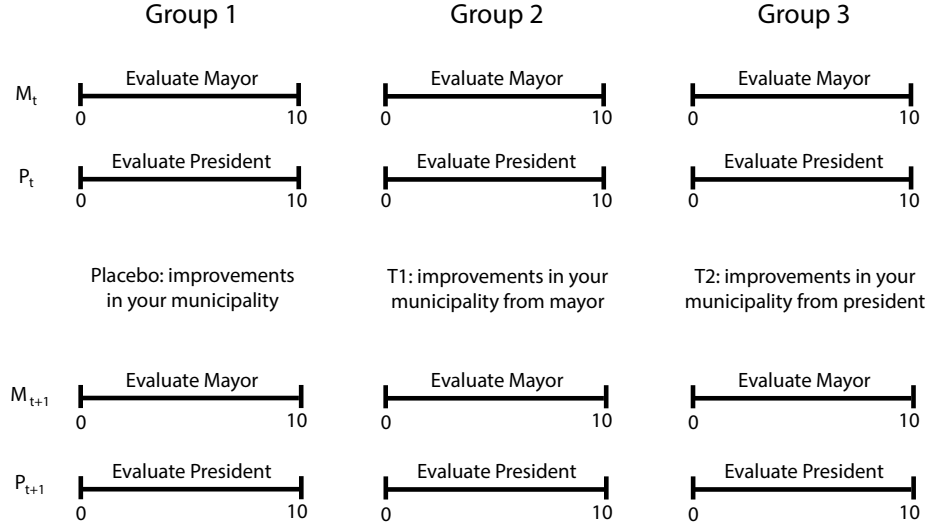
My experiment was embedded in four public opinion surveys designed to study opinions about elections and governments in Argentina, Brazil, Mexico and Venezuela. The surveys were administered by four different research firms: in Brazil it was administered by Vox Populi, in Argentina by NRC Instituto, in Venezuela by Delphos, and in Mexico by DEFOE. The surveys were fielded between June and August of 2012 to a representative sample of 1200 voters in 40 municipalities of Argentina, 2400 voters in 195 municipalities of Brazil, 900 voters in 60 municipalities in Mexico, and 1200 voters in 40 municipalities in Venezuela. All surveys were administered in a face-to-face interview with culturally competent research staff trained in administration of the instrument. All surveys followed the same sampling design. They all used a probability-based sample where all members have a known probability of selection. They covered each country populations aged 18 years and older. The sampling procedure for these surveys thus constitutes a two-stage probability design. The final respondent data were adjusted for the common sources of survey error (nonresponse, coverage error, etc.) using post-stratification weights.<sup>1</sup>

For the core experiment, we randomly allocated respondents to three groups of equal size and presented each group with one of three versions of a vignette that claims political responsibility about local public goods provision (see complete design sketched on Figure 4.1):

- **Version 1** In the past few years, (name of the municipality) has received several investments in infrastructure. Do you agree or disagree that they were important for your community?

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<sup>1</sup>Post-stratification weights are raked to adjust to the demographic and geographic distributions from the most recent Census data of each country.



**Figure 4.1:** *The survey experiment design*

- **Version 2** In the past few years, (name of the municipality) has received several investments in infrastructure provided by the mayor (name of the mayor). Do you agree or disagree that they were important for your community?
- **Version 3** In the past few years, (name of the municipality) has received several investments in infrastructure provided by the president (name of the president). Do you agree or disagree that they were important for your community?

The answer options were: strongly disagree, somewhat disagree, neither agree nor disagree, somewhat agree and strongly agree. Important to note that the answers for these questions are not the interest of this study. I used them as a way to implement the treatment (information about responsibility) without making it obvious, so it could bias my results. The three question versions differed only in that they described who is/not responsible for the infrastructure investments I am asking about. Accordingly, for 1/3 of the respondents, referred to as the

control group, we measured attitudes over no clear responsibility, whereas for the other 2/3, referred to as treatment groups, we measured preferences over different authorship — mayors or presidents. Randomization ensured that the three groups of respondents were (in expectation) identical in all other observed and unobserved characteristics that may confound a comparison across groups.

To ensure the causal effect of the messages presented to them, I also designed the study to collect pre and post measures about the variables I care about: the level of evaluation of local ( $M_t$ ) and national ( $P_t$ ) government performance before ( $t$ ) and after treatment ( $t + 1$ ). The questions were asked in the same fashion for the entire sample in the beginning and in the end of each survey:

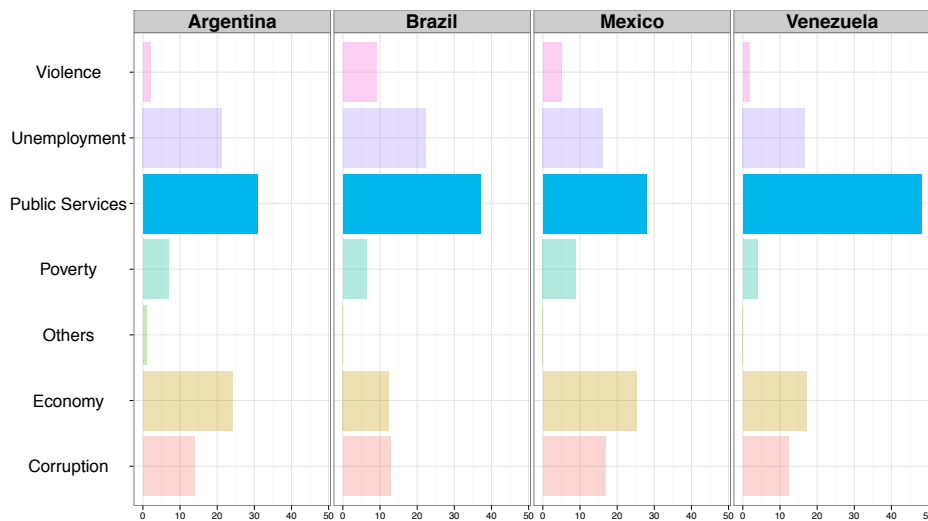
- **Mayor** How do you evaluate the performance of the mayor (name of the mayor) of your municipality so far?
- **President** How do you evaluate the performance of the president (name of the president) so far?

These are my dependent variables in this study as my goal is to use them as proxies for whether or not politicians can credibly receive credit (improve their evaluations after treatment - information about responsibility) for what they claim to have done under different institutional settings. Or in other words, this design allows me to understand in which circumstances mayors get more credit than presidents, and vice-versa. More importantly, it allows me to identify if this is caused by the information about public goods provision, and if differs in each country.

### 4.3.3 Descriptive results

Besides the experimental questions, I also included on the surveys some questions about policy-making and public goods provision. For instance, when voters are

asked about what should be government's priority when ruling, the majority of them chose public services and infrastructure as the most important (See Figure 4.2). In Argentina, 31% believe that government's priority should be to invest in better public services and in improving infrastructure, followed by 24% who believe fixing the economy is priority, and 21% who think that reducing unemployment should come first. The pattern is the same in Mexico and in Venezuela, although the economy seems to be more important in Mexico than in Venezuela. In Brazil, 38% want better infrastructure and public services from the government, 21% prioritize less unemployment and 12% prioritize less corruption. These descriptive results suggest that voters do care a lot about governmental investments in local public goods, and therefore this might help or hurt politicians if certain goals are achieved or not.

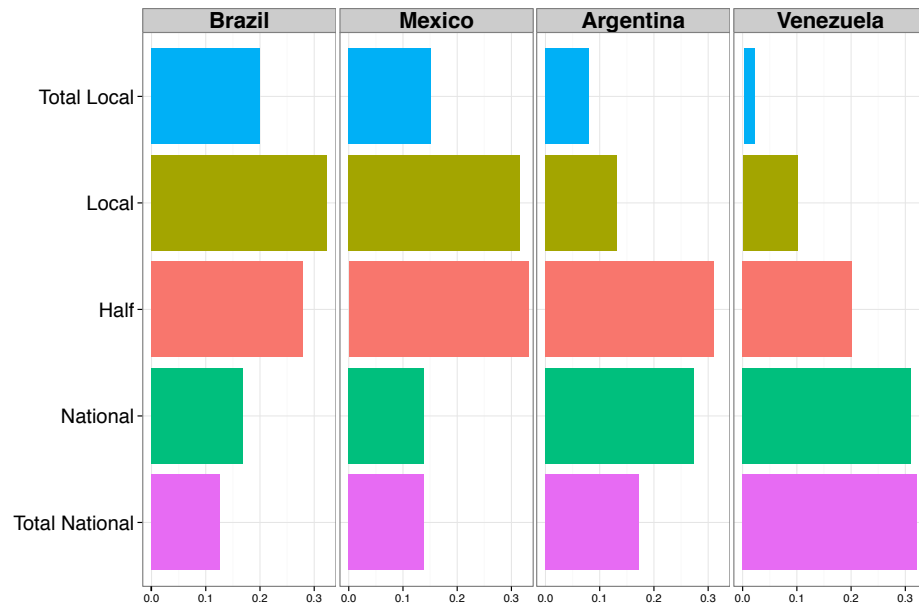


**Figure 4.2:** *What Should be Government's Priority?*

I also asked voters in the four countries who they believe to be **mainly** responsible for the provision of public services and infrastructure for their municipalities. The general distribution of beliefs about governmental responsibility among the



four countries is displayed in Figure 4.3. In order to make it easy the comparison, I organized the Figure from the most decentralized case (Brazil), to the least (Venezuela). The descriptive results are perfectly aligned to my expectations. In Brazil, 53% of voters believe that the provision of public services and infra-structure for municipalities is responsibility of local governments, whereas in Venezuela only 11% think that way. In Mexico, 45% assign responsibility to Mexico, and in Argentina only 19% of voters believe that local politicians are the ones responsible for the provision of goods. When we compare to the percentages of voters in each country that believe national politicians, or more specifically the president, is responsible for the investments, we find that 29% think that way in Brazil, 24% in Mexico, 46% in Argentina, and impressively 63% in Venezuela.



**Figure 4.3:** *Who is Mainly Responsible for Public Policy?*

Although the descriptive evidence is suggestive, we cannot randomize institutions, therefore we do not know whether or not there is a statistically significant difference between the distributions that could be driven by the effectiveness of

information in which local and national politicians claim credit for things they do. In the next section I provide evidence to support my claims coming from the randomization of the treatment and the comparison of the pre and post treatment measurements of politicians' performance evaluations.

#### 4.4 Whom do voters reward?

If voters believe that mayors are more powerful in decentralized systems and presidents in centralized ones, I expect that voters living in decentralized systems should improve their local government's performance evaluation when they are primed about mayoral responsibility for the improvements observed locally, but should not change evaluation of the national government's performance.. That is, I expect decentralization to have a large and positive relationship with mayor's performance evaluation when credit claiming for the mayor is present and a null effect on president's performance evaluation when credit claiming for the mayor is present. I also expect that voters living in centralized systems should improve their national government's performance evaluation when they are primed about president's responsibility on the investments made locally, but should not change their local government's performance evaluation. That is, I expect centralization to have a large and positive relationship with president's performance evaluation when credit claiming for the president is present and a null effect on mayor's performance evaluation when credit claiming for the president is present.

To conduct an explicit test of this argument, I compare pre and post treatment levels of government's performance evaluation for mayors and president between control and treatment groups in each of the four countries I conducted the experiment. This measure, which I label EVALM or  $M_t$  for mayor's evaluation and EVALP or  $P_t$  for president's evaluation, is a discrete variable that can take values from 0 to 10, where 0 indicates a terrible evaluation and 10 a perfect evaluation.

On average, mayors receive a score of 4.5 in Brazil, 4.3 in Argentina, 6.2 in Mexico and 5.2 in Venezuela. The presidents of Venezuela and Mexico were the ones who received the best scores (6.7 and 5.9, respectively), followed by the Brazilian (5.4) and the Argentina (5.3). These average scores suggest some sort of variation on the evaluation of the performance of national and local politicians, but more importantly, they do not suggest that the baseline from which we will make comparisons is correlated with any of the variables I care about in this paper. That is to say that a good or bad evaluation of presidents or mayors is not necessarily correlated in an expected way with a country's institutional system *per se*.

#### 4.4.1 Estimation strategy

In order to estimate the average treatment effect of my experiment in each country I run within-subject and between-subject comparisons. The final results are presented in difference-in-difference estimators. If my theory is correct, we should observe a positive effect of the treatment on mayor's evaluation in decentralized systems, and a null effect of the treatment on president's evaluation in centralized systems. In order to estimate the size of this effect I calculate difference-in-differences estimates: First, I calculate within-subject differences of pre and post measures for those subjects who received treatment and who were in the control group.

$$DIFF1 = \left[ \frac{1}{N_D} \sum_i^{N_D} (M_{t+1,i}^{Treat-M} - M_{t,i}^{Treat-M}) \right]$$

$$DIFF2 = \left[ \frac{1}{N_D} \sum_i^{N_D} (M_{t+1,i}^{Control} - M_{t,i}^{Control}) \right]$$

$$DIFF3 = \left[ \frac{1}{N_D} \sum_i^{N_D} (P_{t+1,i}^{Treat-P} - P_{t,i}^{Treat-P}) \right]$$

$$DIFF4 = \left[ \frac{1}{N_D} \sum_i^{N_D} (P_{t+1,i}^{Control} - P_{t,i}^{Control}) \right]$$

Then, I calculated the differences between the average treatment effect of the mayor treatment ( $ATE_{mayor}$ ) and the average treatment effect of the president treatment ( $ATE_{presid}$ ) to get the treatment effect for each of the experiments conducted on each country ( $ATE_{country}$ ).

$$ATE_{Mayor} = DIFF1 - DIFF2$$

$$ATE_{Presid} = DIFF3 - DIFF4$$

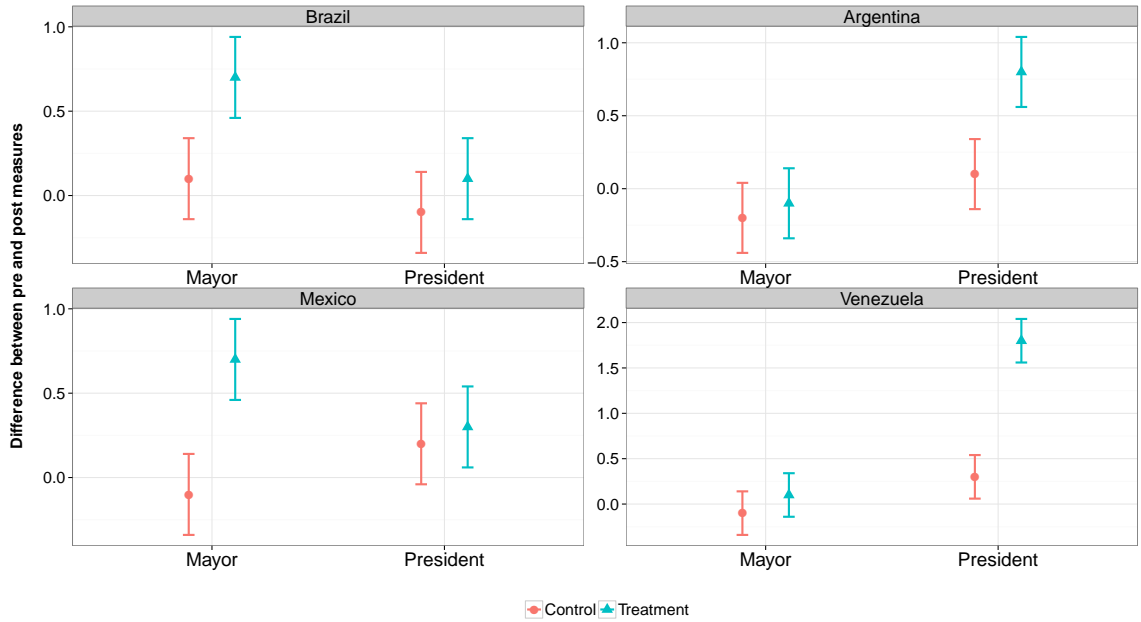
$$ATE_{country} = ATE_{Presid} - ATE_{Mayor}$$

My expectation is that in decentralized systems the  $ATE_{country}$  will be negative, whereas in centralized systems it will be positive. Figure 4.4 plots the average evaluations each layer of government received by country, by treatment condition, before and after treatment has been randomly assigned. The results suggest two key findings. First, the ‘mayor’ treatment seems to improve mayors’ evaluations both in Brazil and in Mexico, but not in Argentina and Venezuela. Second, in accordance with the predictions based on the theory introduced here, I find that the ‘president’ treatment bolsters the presidential performance evaluation in Argentina and Venezuela only. The results hold across and within treatment and pre/post measurements.

Whereas mayor’s evaluation under the mayor treatment has a statistically significant higher score of 1.0 in Brazil when comparing pre and post measurements, and 0.7 higher score in Mexico; mayor’s evaluation pre and post treatment in Venezuela and in Argentina are not statistically distinguishable from each other. These results are aligned with my theory about voters’ beliefs about strong and weak politicians in centralized and decentralized systems. In this particular case, mayors are actually better evaluated when voters receive the message that reinforces their role as powerful politicians in decentralized settings (Brazil and

Mexico), but not in centralized countries (Argentina and Venezuela).

Comparing pre and post treatment measures of presidential evaluations in the four cases also provide evidence aligned to my theory. In Venezuela, the difference between before and after treatment evaluations of Chavez when subjects were exposed to the presidential claim of responsibility is almost 2.0 points in the 0 to 10 score scale. In Argentina, the same comparison gives a statistically significant different of 1.0. In Brazil and in Mexico, the differences on president's performance evaluation are not statistically significant. This is strong evidence in favor of my argument as the effect is observed in the direction I expected theoretically, across countries and within treated subjects.



**Figure 4.4:** *Local and national government performance evaluation by treatment and control group in Brazil, Argentina, Mexico and Venezuela*

In summary, I observe  $ATE_{Brazil} = -0.6$ ,  $ATE_{Mexico} = -0.4$ ,  $ATE_{Argentina} = 0.6$ , and  $ATE_{Venezuela} = 1.3$ . Taken together, the results are consistent with my

theoretical expectations where voters are actually rewarding local politicians in decentralized settings, and national politicians in centralized.

## 4.5 Conclusion

In this chapter I challenged the credit-claiming idea that has been used in the political science literature as if it was universal. I argued that we need to understand better how voters assign political credit to politicians when more than one officer has the legitimate authority to claim credit for outcomes observed locally. I investigated, first, whether or not voters assign political credit for local politicians in a centralized federal system - regardless of who produced the outcomes observed. Second, I explored the conditions under which voters were more prone to identify presidents or mayors as responsible for the outcomes they care about. To do this, I gathered individual-level survey data to distinguish, on one side, when local governments are able to ‘steal’ political credit from central government’s provision of public goods, and, on the other side, when the central government is able to maintain full political credit for its allocations.

I ran the same survey experiment in each of the countries investigated here: Argentina, Brazil, Mexico, and Venezuela. The results demonstrate that local governments obtain political credit for the central government’s public goods provision when voters believe that local politicians are credibly claiming credit for the outcomes observed. Such belief is produced when voters identify mayoral claims as reliable information. The reason that voters believe mayors in decentralized countries are powerful and responsible for the goods provision relies on the fact that voters saw, and sometimes fought for, the decentralization reforms that took place in some countries, but not others. On top of that, because decentralization actually empowered local politicians, they started to do more for the municipalities, which made voters believe in this new situation even more.

My research has not only academic purposes, but also policy implications. My main objective was to understand voters' behavior and attitudes having as reference how they evaluate and reward/punish politicians in charge of the implementation of policy as well as of the allocation of public goods. Therefore, this chapter speaks to a broader question that involves political agency problems that relate to the relationship between citizens and government. I contribute to the understanding of accountability problems that have as a main consideration the design of an optimal mechanism for public goods provision. In policy terms, my research has clear implications for how to avoid government failures. What I demonstrated here was a clarification of the mechanisms that make voters more or less aware of how politicians decide on budget allocations to avoid ignorance, to promote quality of leadership, and to counter-balance the influence of organized interest groups.

In the political agency approach, the political incentives arise because citizens have delegated authority to policy makers who enjoy an informational advantage. Such delegation raises two main problems: (1) Monitoring - the policy maker may act opportunistically. There is a need to establish whether this has happened and to reward/punish behavior accordingly in order to minimize opportunism; and (2) Selection - there is a need to select the most competent policy makers and/or those whose motivations are most likely to be in tune with the public interest. Elections are the core mechanism for solving these problems, but as we know, they are imperfect. In a poorly functioning democracy, for instance, politicians can perform acts which systematically displease voters without facing sanctions. This might be because voters are poorly informed or politicians intimidate voters. The extent of real accountability might be thought of as a pretty good index of a well-functioning democratic system of government. It is through stronger accountability that politics is most likely to be responsive to voters' wishes.

In addition, there is no necessary link between accountability and the welfare of

a society. If there is a large measure of disagreement on the right policy, there is no obvious reason to believe that making sure that elections outcomes are responsive to incumbent behavior increases any reasonable measure of social welfare. To solve this, we need to explore more carefully the mechanisms that make voters more aware (informed) about politics, allowing them to properly punish or reward those responsible for ‘bad’ or ‘good’ decisions. The clearest implication of such reasoning is that governments will tend to perform better when voters hold them accountable, and when they find institutional support to punish the behavior of ‘bad’ politicians.



## CHAPTER 5

### Conclusion

I began my dissertation research with the observation that some presidents in Latin America have not been able to produce the changes they promised in their campaigns. I have discovered that an important part of the explanation for variations in presidential success is tied to the extent to which different countries decentralized power after re-democratization. In countries with more extensive devolution to local governments, presidents have had trouble implementing policy changes from the top-down, as they must delegate to local brokers (mayors) who may be unwilling agents. Then, even when presidents do manage to distribute resources to voters, they must compete with locally elected officials to claim credit for the largesse. If those officials are not co-partisans, presidents might end up strengthening support for local opponents by disbursing resources to local voters. So while capturing the top prize of the presidency is a necessary step to enact policy change, in a decentralized context, it is not sufficient.

Since this puzzle presents challenges for the framework commonly used to understand and explain distributive politics in political science and in economics, I wondered how these presidents might distribute public and private goods to municipalities under different levels of decentralization. In pursuing this question, I realized that understanding the roles and incentives of mayors is key to understanding presidential choices. By allocating resources to municipalities governed by allies, presidents can secure that their projects are delivered in the president's name. In developing my answer to this question, I contribute to theorization about

governance in presidential and federal systems. I show that party attachments, conditioned by the extent of decentralization in a country, influence distributive processes underlying policy change.

## 5.1 Summary

I argue in the dissertation that party attachments and the extent of decentralization affect distributive politics in strong presidential systems. To summarize this argument, I claim that presidents who wish to allocate resources to their supporters in the electorate are able to do so directly in centralized countries, but depend on local politicians in decentralized settings. Accordingly, in centralized settings, presidents send resources to the localities that are home to their core supporters, while in decentralized settings, presidents target localities with co-partisan mayors, even if most voters in the municipality did not support the president in the last election. By analyzing 12 years of spending data in 8,300 municipalities, I show that presidents do indeed allocate more to municipalities with more presidential voters in centralized Argentina and Venezuela, but mostly deliver resources to municipalities with mayoral allies in decentralized Brazil and Mexico.

My explanation for why presidents favor allied mayors in decentralized settings is that such mayors are more powerful than their counterparts in centralized settings. More powerful mayors can divert presidential resources, and they can also more credibly claim credit for distributing them. To support this inference, I demonstrate that local politicians have more influence among voters in decentralized countries, and much less so in centralized cases. Using survey experiments and electoral observation data from Argentina, Brazil, Mexico, and Venezuela, I show that a co-partisan mayor helps the president's approval and vote share in decentralized, but not in centralized systems. By increasing the power of local

politicians, decentralization creates an incentive for the president to support co-partisan mayors. In centralized countries, mayors are neither a threat nor an aid to presidential electoral prospects. By shaping presidential incentives, the degree of centralization affects short-term resource allocation and long-term efforts at party-building.

My theoretical argument implies that, depending on the degree of decentralization in a country, as well as the partisan relationship between local and national governments, voters who supported a victorious presidential candidate might not receive the benefits they were promised. A president's voters are rewarded only if (1) a system is so centralized that the president is unhindered in targeting their voters and voters in turn attribute responsibility for public goods provision to the president, or (2) in a decentralized setting, the president is confident that local politicians are trustworthy agents who will deliver the goods in the president's name. In the empirical sections of the dissertation, I show that where the system is centralized voters assign responsibility for the distribution of goods to presidents, and where the system is decentralized voters have a higher probability of receiving benefits when mayors and presidents are from the same party.

## **5.2 Decentralization and Democracy**

This dissertation addresses both theoretically and empirically the relationship between political, fiscal, and administrative decentralization and distributive politics in Latin America. Understanding this relationship is particularly important in this region, given its highly unequal and territorially heterogeneous societies that create dependence on governmental policies, and the relevance of the decentralization agenda that has spread over recent histories in many of these countries.

There are several reasons why so many countries are adopting decentralization. One is key and clearly implicated by this dissertation. Theorists justify the

devolution of power as a means of sharing power among many different political actors. If democracy is to survive, it cannot be a winner-take-all system, particularly not one in which one party is always going to win, and always take all. When some governing responsibilities and resources are devolved to lower levels of authority, and when there are a lot of different provinces and municipalities whose governments will be chosen through elections, parties and groups that cannot win control of the central government may win the opportunity to exercise power in some of the lower-level governments. This argument suggests that decentralization increases their confidence in and commitment to the political system, and the sense among citizens generally that the system is fair and inclusive. If groups with strong bases of support in the country are completely and indefinitely excluded from any share of political power at any level, they are likely to question and even challenge the legitimacy of the system.

In this study, I question the generality of this democratic aspect of decentralization. Powerful local governments serve as a check on presidential power. At first glance, this may produce better outcomes. Presidents who must share power are less able to behave as dictators. But checks and balances work both ways. If the president has good intentions to produce good outcomes for the voters who handed him a mandate, powerful mayors can, for political reasons, thwart those efforts as well. Many voters are neglected because the president does not have confidence in the ‘political responsibility’ of local politicians. In decentralized democracies, de facto presidential power is conditioned by mayoral partisanship.

### **5.3 Contributions of the Dissertation**

My focus in this dissertation is on characteristics of presidential systems in Latin America and how variations in those characteristics affect presidential choices over how to distribute discretionary funds. My argument goes beyond the institutional

explanations well established in the literature by focusing on the interests of voters and the extent of decentralization attained by countries in the region since re-democratization. This is the first contribution of this dissertation that I wish to highlight. Taking interests into account, I argue that our theoretical apparatus, which structures politics on a national left-right dimension, must be expanded to include alternative issues - namely, distributive benefits and locally-targeted policies - that do not line up neatly from left to right. Identifying how voters' support interacts with institutional designs in producing unexpected distributive outcomes is a valuable refinement and extension of previous research that has mostly emphasized the voting behavior of districts and the interests of presidents in being reelected.

In particular, I demonstrate that local allies are politically important in decentralized systems because voters recognize their responsibility for providing goods. More than the institutional setting itself, it is the interaction of the political outcomes and the structural design of the system that affects the distributive behavior of Latin American presidents. There is no denying that federal systems have important effects on economic and political decisions. As many authors have pointed out, subnational governments with their own revenue sources respond better to local demands and promote greater economic efficiency. What I show, however, is that we can better account for distributive outcomes if we integrate the characteristics of the federation, such as the extent of its decentralization, and the vertical political relationships observed in a given country at a given time.

The mechanism that I offer to connect the extent of decentralization to distributive outcomes clarifies the role of political responsibility in presidential systems in Latin America. This is the second contribution of this dissertation. The importance of credit claiming for the orientation of politicians' careers is well established in the Latin Americanist literature. My contribution, therefore, is not simply to show that politicians are single-minded seekers of reelection that

would lead us to predict that they will simply devote substantial resources to credit claiming. Rather, my contribution here is twofold: First, I provide a theoretical framework that describes a mechanism linking the responsibility voters attribute to politicians in federal systems with different levels of decentralization. Second, I demonstrate how this mechanism applies to different kinds of systems in Latin America. In other words, I confirm the importance of credit claiming as a mechanism that produce incentives or stops politicians to pursue such activities or behaviors. Instead of expecting national-level politicians to reward electoral support, voters in decentralized system must also understand the importance of vertically unified government, and must only expect presidential largesse when they have chosen a mayor who is allied to the president.

By this logic, I argue that centralization of power in Latin America probably is not as unequivocal a problem as many people think. This is the third main contribution that I offer. An interesting implication that comes from carefully examining how the presidents behave when facing decentralization is that voters can be more efficiently served when ‘the power of the purse’ and ‘the power of the sword’ are in the same hands. When a president has responsibility for distributing funds, his voters are better rewarded if he is confident that his decisions will be implemented faithfully by local officials, and that he himself will be recognized as the actual provider of goods. Decentralization complicates the accountability link between voters and presidents by inserting intermediate players who are themselves accountable to voters, but who may not share common (partisan) cause with presidents. A president interested in pursuing his electoral goals would need to make sure that all his efforts will be recognized in the future. There is only one way of doing this when one has the power for distributing resources, but does not control the execution: one must work through trustworthy agents. And, as I show in this dissertation, the best clue presidents have about trustworthiness is the party label of local politicians. Therefore, presidents will only be able to

help voters who are governed by allied mayors. In centralized settings, mayoral loyalties are irrelevant. Presidents can target and spend the way they want, as there is no concern about mayoral motives or opportunities, nor about voters' attributions of credit or blame.

In testing my argument empirically, I make a fourth major contribution. I provide a cross-national analysis of municipal expenditures, and test various alternative hypotheses, using a much richer data set. I also examine cross-nationally the probability that mayors are stronger, and that voters actually identify mayors as really responsible for public goods provision in decentralized systems. This dissertation contains, furthermore, a new Bayesian model that pulls together secondary and primary data to produce estimations that are more precise and accurate. The model developed here presents opportunities for researchers to analyze semi-censored data that basically contain two data generating mechanisms: a logistic one and a lognormal one.

Finally, although my answer to the question of what affects presidential allocation has centered on the politics of Latin America, both the question and my answer are relevant to democracies elsewhere. Many governments have dealt with the challenge of decentralizing or the question about turning to a federation. This dissertation shows that accountability and efficiency are not the only issues that need to be taken into account when evaluating the possibility of devolving powers or not. The outcomes are also dependent on the way information about responsibility is organized and transmitted in federal systems. What I show is that presidents drive their behavior based on the way voters will evaluate what they accomplish or what they deliver. Therefore, transparency of information might matter a great deal for if and when voters will observe the benefits they voted for, and whom they will credit.

## CHAPTER 6

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