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Traditional Governance, Citizen Engagement, and Local Public Goods: Evidence from Mexico

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Summary. — We study the governance of public good provision in poor communities in Oaxaca, Mexico. We estimate the effect of *usos y costumbres*—a form of participatory democracy prevalent in indigenous communities—on the provision of local public goods. Because governance is endogenous, we address selection effects by matching on municipal characteristics and long-term settlement patterns. Using a first-differences design we show that these municipalities increase access to electricity, sewerage, and education faster than communities ruled by political parties. We also show they are places of vibrant political participation, not authoritarian enclaves protecting the political monopoly of local bosses.

Key words — public goods, participatory democracy, traditional government, Mexico, Latin America

1. INTRODUCTION

The goal of this paper is to assess the effects of traditional governance on local public good provision. We ask whether poor indigenous communities are better off by choosing to govern themselves through "traditional" customary law and participatory democracy, versus delegating decisions concerning the provision of public goods to "modern" forms of representative government, structured through political parties. This is a crucial question for developing countries seeking to enhance accountability, and a central problem in the theory of participatory democracy.

Our research design takes advantage of an important institutional innovation in the state of Oaxaca, Mexico, that in 1995 allowed indigenous communities to choose their forms of governance. The reform gave full legal standing to a form of traditional indigenous governance called *usos y costumbres* (*usos* hereafter), which entails electing individuals to leadership positions through customary law in non-partisan elections, making decisions through participatory democracy, and monitoring compliance through a parallel (and often informal) system of law enforcement and community justice. If they did not choose *usos*, municipalities could opt instead for party governance, which entails the selection of municipal authorities through electoral competition among political parties and the adjudication of conflicts only through the formal institutional channels, namely the state and federal judiciary.

This constitutional change provides a unique opportunity to understand the effects of giving full legal status to local participatory democracy vis-à-vis representative democracy through political parties in a developing country setting. After the reform municipalities in Oaxaca differed by their type of governance, but still retained the same formal municipal institutions. That is, the structure of municipal government (e.g. having a municipal president holding executive functions), the legal provisions of municipal authority (e.g. being responsible for water, sewerage, and other public services), and the fiscal relationship with the state and the federal governments (e.g. receiving revenue sharing and compensatory development funds) remained the same across the state. Most studies of governance are fraught with the difficulty of isolating the effects of governance from more structural differences in institutional and political context. We are hence able to study governance through observational data, instead of relying on field experiments or other strategies of identification that, while enlightening about the mechanisms of accountability, often have very limited external validity beyond the context where they were implemented.

Mexico underwent a gradual process of democratization during the 1990s which culminated with the defeat of the hegemonic Partido Revolucionario Institucional (PRI) in the 2000 presidential elections. In the state of Oaxaca the transition to democracy, understood as alternation in

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political power at the governor's office, was delayed for almost a decade, until the arrival of a non-PRI governor in 2010. There is a lively debate as to whether the constitutional recognition of traditional forms of governance had a positive effect on electoral accountability or may have reinforced the entrenchment of local bosses. We take advantage of the federal structure of electoral processes, which ensures that even when a municipality opts for non-partisan *usos* as a form of local governance, federal and state level electoral processes remain in place, to test whether traditional governance limited the functioning of political party competition.

Before 1995 all municipalities in Oaxaca were formally governed by political parties. However, most municipalities informally incorporated traditional elements of governance. Such practices were not legally sanctioned or protected by the state constitution or the courts. After the constitutional reform municipalities had to choose whether to maintain a party-based system of governance, or to exclude political parties and switch to *usos*. Our research design addresses a concern with selection bias, by creating treatment and control groups matching on observables through a propensity score. We estimate the average treatment effects on the treated (ATT) of governance on public good provision measured in first differences, in order to attenuate concerns of omitted variable bias. Namely, we do not try to explain the absolute levels of public good provision across municipalities, but rather the change in provision before and after the 1995 reforms. Unobservable variables remaining fixed across the two time periods would not affect the estimation of the causal effects of governance on changes in public good provision.

Our results show that electricity provision increased faster in those municipalities governed by *usos*. They also suggest that traditional governance may improve the provision of education and sewerage. With respect to citizen engagement and elite capture, contrary to existing scholarly work, we find no evidence of entrenchment of local bosses (*caciques*) associated with the former ruling party, the Institutional Revolutionary party (PRI) in places ruled by *usos*. Our findings suggest that traditional participatory forms of governance do not handicap democratic development. Furthermore, municipalities governed by *usos* are more likely to hold open council meetings allowing citizens to participate in decision-making processes. We attribute better public goods coverage to differences in local governance and collective decision-making practices.

We suggest three specific channels through which traditional governance affects local public good provision: the social embeddedness of municipal presidents, broader civic engagement in collective-decision making, and credible social sanctions. We argue that traditional governance practices (which include in our setting decision-making through direct participatory practices, the obligation to provide services for the community, and the establishment of a parallel system of justice), allow poor communities to better hold their political leaders accountable, prevent elite capture, and monitor and sanction non-cooperative behavior.

This paper is structured as follows. The next section introduces the scope and limitations of existing hypotheses on the effects of local governance on the provision of public goods. The third section presents a typology of traditional and party-based governance systems in Mexico. We then describe our data and elaborate on the methodology used to create the counterfactuals to assess the effects of governance. The last section discusses our results and concludes.

2. TRADITIONAL GOVERNANCE

Understanding the effects of traditional governance on public good provision is important both from a theoretical and policy perspectives. As noted by Besley (2006), a general shortcoming in development research is that we know far less about local public good provision than about policy interventions aimed at income support, even though the former have equally important effects on well-being. Well-being hinges not just on individual income, but on access to public goods and services such as potable water, sewerage, electricity, schools, and health clinics. Furthermore, a better understanding of governance and public good provision in highly marginalized villages brings us closer to addressing crucial issues about poverty and improvements in material well-being.

The provision of public goods and its relationship to governance has received increased attention by the academic and policy communities. The most influential hypothesis in the last few years has been one associated with Alesina, Baqir, and Easterly (1999), which proposes that greater social heterogeneity—as measured through an index of ethnolinguistic fractionalization (ELF)—makes it harder for communities to provide public goods. Such failure is attributed to increases in the cost for groups to engage in collective action when the marginal utility of a public good differs across sub-groups. In Alesina *et al.* preference heterogeneity is driven by ethnic fractionalization. Studies finding evidence of the impact of social heterogeneity in public good provision across nations and within countries include Alesina and La Ferrara (2000), Khwaja (2009), Miguel (2004), Miguel and Gugerty (2005), Dayton-Johnson (2000), and Baqir (2002).

The most recent research agenda on the role of ethnic diversity and public good provision moves away from cross-sectional variation to a focus in local experimental settings, in which scholars have tried to understand the conditions under which communities are more able to create networks of trust. Habyarimana, Humphreys, Posner, and Weinstein (2007) in particular, performed experiments in Kampala, Uganda, testing the willingness of co-ethnics and nonco-ethnics to cooperate. Their results show that co-ethnics cooperate more, and they attribute this finding to the existence of denser ethnic-based institutions that allow for monitoring and sanctioning of non-cooperative behavior. Confirming older psychological findings, recent economic experiments also show a higher level of pro-social behavior within ethnic groups than between groups (Bernhard, Fischbacher, & Fehr, 2006; Glaeser, Laibson, Scheinkman, & Soutter, 2000).

While in this literature social (or group) structures are the main explanation of failures in public service provision, another alternative is to consider shortcomings in public administration. There is a long tradition of research, especially among political scientists, which has seen public good provision through the lens of state capacity (Kohli, 2001). The general thrust of that literature has been to suggest that failures in the provision of public goods reflect underlying problems arising from weak states that are incapable of taxing, running a bureaucracy, or in general, fulfilling basic public functions. However, when it comes to unpacking state capacity—its elements, causes, and consequences—the literature remains quite underdeveloped. [1]

Policy makers have increasingly paid more attention to local power structures and corruption as explanations for the difficulties governments face in providing public goods and services. [2] In a particularly poignant example, Reinikka and Svensson (2004) measured an astounding leakage of 87% in a program in Uganda meant to provide grants to schools for

non-wage expenditures. Such leakage was successfully reduced through greater citizen involvement and information regarding the allocation of funds to the local schools (World Bank, 2003). [3] Olken (2006) similarly found that the leakages in a poverty relief program delivering rice in Indonesia were large enough that they offset the welfare gains from having the program in place at all.

As a result of these findings, many scholars are now pointing to both top-down and bottom-up accountability mechanisms and their impact on local public good provision such as auditing to local officials (Ferraz & Finan, 2005); providing citizens with increased access to information about government performance; and community monitoring at the local level, especially of service providers. In the case of India, Chattopadhyay and Duflo (2004) have argued that female leadership in Village Councils led to greater investments in infrastructure related public goods (water, fuel, and roads), while men tend to favor investments in education. This suggests that the composition of deliberative and decision-making bodies is important in determining the allocation of public works.

However, participatory processes in public works are not a sure mechanism to generate accountability. In a particularly creative study, Olken (2006) found that grass roots participation through assemblies had only limited effects in reducing corruption in Indonesian village road projects. In this field experiment participatory grass roots methods of social control for the oversight of public projects through popular assemblies are compared to more conventional bureaucratic auditing randomly assigned treatments. He finds that auditing is more effective as a mechanism to curb corruption than assemblies of participatory democracy. [4] Although Olken's study provides some of the most compelling findings in the literature, the assemblies created as a "treatment" in the experimental design are somewhat artificial and not clearly connected to the prevailing forms of political organization and intermediation that already exist in the villages.

Overall dynamics of party competition might in fact be particularly important factors that enhance accountability. Chhibber and Nooruddin (2004) found that Indian states where patterns of electoral competition are stiffer, in the sense that the incumbent faces strong contestation from one single challenger, are more likely to provide public goods. Díaz-Cayeros, Magaloni, and Estévez (2007) also demonstrate that there is more investment in public good provision relative to clientelistic or particularistic transfers in more competitive races in Mexico. Cleary (2004) does not find this effect of electoral configurations on public service provision, although he shows that variables related to political participation, such as literacy and turnout, improve public service delivery.

Hence, the literature thus offers primarily three explanations for the differential provision of public goods. First, ethnic diversity seems to make public good provision more difficult. Second, governments that in some measurable way are more capable might be better able to provide public goods. Third, local government accountability and civic engagement, particularly by women, are essential to curb rent seeking and capture in the provision of public goods.

Our paper seeks to contribute to this body of research by focusing on the effects of local governance on public good provision. Our empirical analysis builds on ethnographic and aggregate data of the southern state of Oaxaca in Mexico, one of the most impoverished and indigenous in the country. The state constitution allows municipalities since 1995 to select among two very different types of governance structures—those we have referred to as "traditional indigenous" and "party" governance. We ask two things. First, whether communitarian self-rule improves local government accountability and the provision of local public goods; second, whether as the conventional view holds, self-rule represents a form of autocratic enclave that works to protect entrenched local power structures and *caciques* allied with the former ruling party.

The first hypothesis follows from a body of literature linking increased democratization and electoral competition to better government performance and outcomes related to the provision of public services (Bueno De Mesquita, Smith, Siverson, & Morrow, 2005; Lake & Baum, 2001; Díaz-Cayeros *et al.*, in press; Banerjee & Somanathan, 2007; Stokes, 2005). In a democracy, party elites survive by competing for the popular vote, and have an incentive to cater to as many constituents' as suggested. This shapes their budget-allocation strategies to minimize electoral risk while maximizing the coalition-building potential of their spending, which is partially done by spending less in targeted goods and more in (semi) public goods.

Democratization also benefits voters because it reduces the costs of entry to the political game, the relative number of players increases, and the ratio of winning coalition to selectorate is reduced. More players in the political game involve less incentive to coalesce around inefficient policy, promotes the cross-monitoring of political parties and politicians for inefficiencies and corruption, and the design of policy to cater to the widest coalition of voters.

As will be discussed in more detail in the next section, indigenous self-rule in Oaxaca is based on community assemblies where discussion over public priorities shapes the decision about budget spending. These communities solve their collective action dilemmas by engaging most of the community in the process of deliberation about how to spend the municipal monies. This participatory flavor of municipal democracy is intertwined with a high level of public knowledge about who participates and who does not, simply because assemblies are public and mandatory. Defectors are easily detected and sanctioned.

Thus, we argue, municipalities ruled by *usos* are an example of participatory democracy where municipal presidents and local authorities are more tightly under the supervision of the communities, and where monitoring and sanctioning costs are low by design. Knowledge about public budget is also easily spread in the assemblies, and corruption more easily contained.

But this by itself does not necessarily imply a better performance of local governments in the provision of basic infrastructure. Another necessary condition is that municipalities must have funds which are (a) targeted for infrastructure, and (b) isolated from the political game at the state and federal level. Research shows that public spending and transfers from the federal level to the states and municipalities during the authoritarian phase in Mexico served as coalition-building incentives that depended on discretionary decisions at the central level (Díaz-Cayeros, Magaloni, & Weingast, 2000; Costa-i-Font *et al.*, 2003). [5]

Since 1997 the fiscal arrangement in Mexico includes a direct transfer from the federation to the municipalities exclusively for the development of social infrastructure. By law, 20% of total revenue from federal taxation –as well as rights to oil extraction and mining– is constituted every fiscal year in a General Participations Fund (*Fondo General de Participaciones*). Then, 2.5% of shared revenue is constituted in a Contribution Fund for Social Infrastructure (*Fondo de Aportaciones para la Infraestructura Social* —FAIS), divided into state (.0303%) and municipal (2.197%). Funding for municipalities in Mexico is substantial, amounting to 43.5 billion pesos (around 3.4 billion dollars) for fiscal year 2012, or around 0.2% of GDP.

FAIS municipal funds are specifically targeted for the provision of running water, sewerage, piping and latrines, urbanization, electrification for rural and poor areas, basic health and education infrastructure, household improvements, rural roads, and productive rural infrastructure. At the state level, they are targeted for regional development and inter-municipal projects. These municipal funds are assigned with formulas and flow directly from the federal to the municipal treasury, bypassing the political game within the state government and between states and federation.

Our first hypothesis builds on the fact that the particular type of democracy of *usos y costumbres* at the municipal level involves the communities in a direct participatory way that spreads information about municipal governance and federal transfers. It is surprising to see in our own field research how people from *usos* municipalities are sometimes impressively aware of the specific amount of transfers they receive from the federation, which is conspicuously absent among people from party-based municipalities. Higher information, better monitoring, and community involvement in the definition of municipal spending curbs corruption and makes municipal governments more responsive to their constituents needs. In out framework, we would expect then a higher rate of change in these goods when looking at traditional municipalities.

Our second hypothesis is that these traditional arrangements are not authoritarian enclaves manufactured to protect coalitions friendly to the PRI. For most of Mexico's modern history, forms of indigenous communitarian self-rule have been extra-constitutional, although it has been widely practiced and tolerated *de facto* by the federal regime (Cleary, 2007). In the mid-1990s, the state government of Oaxaca formally recognized *usos y costumbres* departing from constitutional doctrine and practice dating back to the 19th century, through which state authorities forbade indigenous communities from exercising formal autonomy over local political affairs along with the ability to use their own chosen institutions of governance.

Existing evaluations of this form of governance by political scientists are unfavorable. The prevailing view is that the reform in Oaxaca attempted to limit the extent of the anti-PRI vote (Benton, 2012) and insulate local PRI-supporting indigenous *caciques* by taking partisan elections off of the table entirely (Cleary, 2004). The argument is that the PRI allowed indigenous communities to choose *usos* in order to prevent opposition political parties from entering these impoverished political markets. In impeding opposition parties from competing in these elections, so the argument goes, the PRI was better able to sustain its political monopoly in the state of Oaxaca. Scholars also have found that this form of indigenous self-rule is highly discriminatory of women (Eisenstadt, 2007).

A key limitation of much of the existing research is that it ignores the problem of selection bias. Since the presence of *usos y costumbres* is non-random [6] it is not possible to claim any causal effects without properly addressing the problem of self-selection first. For example, when scholars argue that traditional governance works to protect the monopoly of the PRI, it is not clear if these municipalities exhibit significantly less political competition (as measured by vote shares in federal elections as in the existing scholarly work) because the PRI purposely designed *usos* to take the opposition out of the local political landscape or because these communities are intrinsically less likely to divide along partisan lines.

Since random assignment of treatment is impossible in our setting, we work with observational data and use a multimethod approach to address the problem of selection bias based on two strategies. First, we estimate the effects of indigenous autonomy through propensity score matching. Matching on observables is done including municipal sociodemographic characteristics as well as geographic and long-term historical settlement patterns. Second, we use matched data in a first differences design that allows us to control for fixed unobservables.

Our results are the following: municipalities governed by traditional collective-choice methods exhibit larger improvements in electricity provision during the last two decades, and faster improvements for sewerage from 2000 to 2010. They also show no differences in "political entrenchment" by local *caciques* than their matched "party municipalities". These results run counter to the notion that indigenous autonomy works to insulate authoritarian enclaves and entrench local *caciques*. To the contrary, poor indigenous communities exhibit higher civic engagement and enjoy better governance—and hence better access to local public goods—than similarly poor communities that are ruled by political parties.

3. VARIATION IN LOCAL GOVERNANCE

All municipalities in Oaxaca—regardless of whether they are ruled by parties or *usos*—share the same formal institutional structure: they all have a municipal president and a set of aides whose attributions stem from the federal and local constitutions, and they all share a similar legal and fiscal relationship with their state and the federation. Importantly, there is a constitutional prohibition for reelection in Mexico, which means that municipal presidents cannot run again for that position in the consecutive term.

Municipal presidents are in charge of making decisions over investments in local public good provision or social infrastructure projects that the constitution reserves to this level of government (roads, markets, public lighting, sewerage, street pavement, granary, slaughter houses, and the like). In poor municipalities, funds for investment in social infrastructure overwhelmingly come from federal transfers within the FISM (*Fondo de Infraestructura Social Municipal*, sometimes also referred to as FAISM), which is governed by a formula that is based on poverty indicators. These transfers are given by the federation directly to the municipalities, which retain ample discretion with regard to how these funds are distributed and used, the only restriction being that they need to be spent in social infrastructure projects. Federal transfers for social infrastructure projects within the FISM have significantly increased since 1997, allowing municipal presidents to play an increasingly more important role in the provision and distribution of local public goods. They also have an increasing role in reducing extreme poverty indirectly by investing more in infrastructure such as roads or markets.

Despite an identical formal institutional setting, there are important informal institutional differences among party and *usos* municipalities. The latter is not a homogeneous set of practices. There is ample variation in the mechanisms by which people under *usos* solve their collective action problems. We can nevertheless find general shared patterns and contrast them with party-based electoral competition. We highlight the following key differences:

(a) *Selection of political leaders*

Party municipalities select leaders through partisan elections. Political parties channel the progressive ambition of these politicians, solve collective action dilemmas and bargain-

ing among different levels and branches of government, and hold their politicians accountable through the threat of loss of future utility streams through the assignment of office. In Mexico, the rule of no-reelection implies that municipal presidents interested in a career in politics need to service the leadership of their parties rather than their constituencies to get promoted to higher office. Governors are often the key figures determining who gets promoted.

In the state of Oaxaca, the long-lasting PRI had been the dominant political party and had never lost the governorship of the state—until the 2010 gubernatorial election. The absence of consecutive reelection has generated a very deficient accountability mechanism at the municipal level in Mexico. The perverse system implies that if their parties decide to renominate non-responsive, incompetent, or corrupt officials for higher offices, there is virtually no way for the electorate to directly punish municipal presidents who underperform or even steal government funds.

Usos municipalities, in sharp contrast, choose representatives in assemblies. Citizens meet in a public assembly, deliberate, and vote. There are no uniform rules with respect to how this collective decision-making should take place. In some municipalities, the main neighborhoods nominate a number of candidates for the office of the mayor, and the full assembly then discusses each candidate until they are able to whittle the list down to four or five. "They then vote 'por terna', which is a form of approval voting in which the assembly considers one candidate at a time and counts affirmative votes. The candidate with the most approval votes wins, and serves a single three-year term" (Cleary, 2008: 15). In other municipalities, the serving municipal president proposes the names of three or four candidates, and the assembly then decides. In yet others, potential candidates must come from those who have a long and well-established record of serving the community. For the most part, women are not considered for the municipal presidency.

A key difference in the *usos* municipalities is that municipal presidents are members of the community, and although these cannot get reelected either, most of the time they will continue to live and to participate in collective decision-making even after they step down from their posts. Moreover, our ethnographic research reveals that those who get elected to the municipal presidency normally have a record of servicing the communities in previous "cargos" or mandatory community services. Municipal presidents in *usos* municipalities are hence generally better embedded in their communities, which we believe, contributes to generate better accountability mechanisms than in party municipalities.

Voting can be secret or not. Most of the time a long deliberation takes place that can last up to ten hours and citizens raise their hands to vote. Formally, all such elections are supposed to be non-partisan, and the parties are not allowed to support candidates or run campaigns; in practice, however, political parties are sometimes associated with some candidates.

(b) *Solution of collective action dilemmas*

Municipal authorities are appointed every three years. In election-based municipalities, executives usually make political decisions without much public scrutiny once in office. Formally, the municipality is composed of a president (the executive) and a separate "cabildo" (assembly), although by design the largest party has the majority and the government is always unified. The usual monitoring and sanctioning mechanisms are performed by political parties.

In *usos* municipalities, collective decisions are taken item by item, mostly in assemblies where there is a process of collective deliberation. Assemblies meet regularly and citizens are allowed to participate; they are usually well attended (in most cases attendance is mandatory) and often last hours. This publicness of political assemblies reinforces the collective monitoring mechanisms that elsewhere fall on political parties. Traditionally, women were excluded from participating in assemblies. [7]

The ranking of public projects in *usos* is done in public deliberation in these assemblies. These communities are tightly knit, and in the smaller ones everyone knows each other personally and are sometimes related to each other. The discussion over public works and other public issues disseminates information about the state of the public finances, and provides a channel with which to match them with the preferences of the citizenry.

(c) *Taxation*

In party municipalities, taxation is mostly exogenous to the provision of public goods: political leaders decide tax bases and rates, and investment decisions are often made independent of these.

By contrast, in *usos* municipalities, the community decides tax structures, which include non-pecuniary contributions that are endogenous to the level of public goods provision. For example, when the community decides that a road needs to be repaved, or that garbage needs to be picked, some or most members of the community will be asked to pay with their own labor—a practice called "tequio", which is usually not remunerated. The authorities provide the construction material and some amenities during the workday.

Additional to these short-term contributions, people from *usos* in Oaxaca engage in two distinct types of community service: a committee-style post in charge of specific tasks ("cargos") and a long-term community service ("servicio").

(d) *Servicio and cargos*

A key difference between party and *usos* municipalities relates to public jobs. In party municipalities, all public services are performed by municipal employees, who are remunerated with public funds. Political parties have ample leeway to distribute these public jobs to their clienteles.

In *usos* municipalities, members of the community are expected to perform public services, and with the exception of the municipal presidency, they are usually mandatory, often without remuneration. Citizens become deeply involved in the life of the community, either organizing religious festivities, coordinating public works, cleaning the roads, policing the streets, rural roads and fields, repairing the school, organizing the public market, decorating the church, etc. [8]

Our field research shows that the mandatory character of these public services is so binding that men and women living illegally in the United States are also summoned to participate in a "cargo" or "servicio", and they usually comply to avoid having their families incur in sanctions. Migrant men and women are also deeply part of the community even if living abroad. Nevertheless, in our field experience municipal presidents tend to have been residing in the community for at least some years prior to their election.

(e) *Monitoring and sanctioning*

Party municipalities have a professional armed police force. Conflict resolution and adjudication takes the regular judicial

channels, which are often located outside of the communities, and are administered by judges that have little knowledge of the locality. *Usos* municipalities have a parallel system of conflict resolution and adjudication and a parallel security system. The community charges men (so-called "topiles") with the task of protecting the security of its people, although they are seldom armed. The assembly, a counsel of elders, or an indigenous tribunal hear the conflicts and impose sanctions.

Those who refuse to perform their "cargos" or "servicio" are normally sanctioned. Traditionally, sanctions included imprisonment, disruption in the supply of water, physical punishment, [9] or in extreme cases, expulsion from the community. In our ethnographic work we found evidence of a gradual abandonment of the latter sanctions. We also found that "servicio" is intimately linked with cross-border dynamics. For example, some migrants will return to their home-towns specifically to perform "servicio" for free, and consume a substantial amount of their savings, reinforcing a cycle of decapitalization.

These structural differences between *usos* and parties shape perceptions of the responsiveness, corruption, and availability of information for the citizenry. Table 1 shows the simple cross-tabulation of responses to a survey we conducted in Oaxaca during 2009. Striking differences emerge across governance systems. In all cases, people living under participatory democracy show much more lenient opinions about their municipal government than people ruled by political parties.

Almost 20% more people under *usos* believe that their municipal presidents serve to govern the community. This is about 50% increase with respect to parties. The perceived benefit of public spending for "people like me" shows a 10% difference between types, and there is a 15% difference in positive perceptions of how honest the municipal president is. In all these categories, more than half of respondents in *usos* agree with the statements in the survey question, and less than half agree in parties. This is a coarse but eloquent measure of how perceptions of agency loss and corruption change across governance type.

The fourth line in Table 1 reports perceptions about the "closeness" of local politicians to their constituents. Around 14% more people living in *usos* believe that their municipal presidents consult or listen to people when deciding how to spend municipal funds on public projects. Finally, the last item shows a 12% differential in perceptions of being informed about the decisions of the municipal government. In the last question all responses remain nevertheless below 50%, suggesting that overall levels of political information remain low regardless of the political processes.

These differences can be explained with the framework we lay out in this section. Whereas in the typical party-based systems voters elect leaders and then only rarely become involved in the process of policy formation, *usos* is an assembly-based system where people publicly discuss both the allocation of budget and public priorities. The structure of policy-making in the latter requires people to gather and discuss. In this process, individual information is shared, and overall levels of information about money and policy increase. Because the municipal president is present in these discussions, he is recurrently held accountable to the assembly for his decisions.

To sum up, all municipal governments in Mexico share the same formal institutions per constitutional mandate. After the 1995 constitutional state amendment in Oaxaca, municipalities were given the choice to switch to a traditional system of local governance. This system is loosely organized around the concept of *usos y costumbres*, but it encompasses a panoply of practices and rules to select leaders and solve collective-choice dilemmas. Once collective decisions are taken according to these informal rules, they are expressed in the formal apparatus of the municipal government.

Usos y costumbres is thus a system of informal rules and practices which are embedded in the formal, constitutional rules of municipal operation, and provides a rich example of the multiple nature of institutions (Greif, 2006).

This embeddedness provides a unique research design opportunity because formal institutions remain fixed while the informal practice of day to day governance varies. Formal rules are fixed within the municipality (regarding for example the nature and powers of municipal authorities) and they are the same across municipalities in how they relate fiscally or legally to the state or the federation. Despite these similarities, there is variation within Oaxaca in the way formal authority is selected and exercised: parties and electoral competition in some municipalities, and assembly-based, participatory rules in others. We exploit this variation to generate inferences about the effects of governance types on participation, provision of public goods, and women participation in government.

Our theoretical expectation is that traditional governance institutions will be able to better provide local public goods because of their superior capacity to solve collective action problems, engage citizens in collective decision-making, and monitor and sanction non-cooperative behavior.

These theoretical expectations build from the work by Olson (1971) on the structural characteristics of groups that can foster the individual provision of public goods (i.e. monitoring and sanctioning) and the more recent extension by Ostrom (2009) on governance of natural resources, which shows the conditions under which communities can sometimes device informal direct participatory practices and monitoring and adjudication devices to successfully administer public goods. It also builds on recent work by Olken (2008) on the effects

Table 1. *Perceptions of responsiveness, corruption, and information (% Yes)*

	Usos	Parties	*n*
Municipal president governs to serve community	59	41	506
	(187)	(132)	
Municipal president benefits me with public works	55	45	525
	(175)	(144)	
Municipal president handles public money honestly	56	42	362
	(114)	(66)	
Municipal president consults people for public works	66	52	533
	(196)	(122)	
How informed are you about decisions in the municipality	38	26	568
	(117)	(68)	

Note: Figures in parenthesis correspond to cases in each cell.

of direct (but plebiscitary) democracy over allocation of community resources. The complex social organization of *usos* seems to allow indigenous communities to better coordinate collective action toward the provision of public goods, often in the face of marginalization, poverty, and adversity.

4. PROPENSITY SCORE MATCHING USING AGGREGATE DATA

Our analysis assesses the advantages and disadvantages of traditional governance relative to the institutions of representative democracy prevailing today. Given that traditional authorities are more likely to be present in extremely poor, indigenous and isolated communities, we make use of a matching procedure to create an appropriate counterfactual through which equally poor, isolated, indigenous communities can be compared in their forms of governance.

The fundamental problem that needs to be addressed is that *usos* is not randomly assigned. In fact, when the constitutional reform was carried out in 1995, indigenous communities in Oaxaca were asked to select whether they wanted to be ruled by one form of governance or the other. Recondo (2007) suggests that this selection was relatively autonomous, and although there were some adjustments in the numbers, as some municipalities shifted between governance regimes, since 2000 the communities ruled by *usos* have remained fixed at 418. Given the lack of records of the decision-making process that led communities to choose one or the other governance system, we make use of geography and long-term settlements patterns in order to find a counterfactual of what the social outcome would be of making collective decisions under systems of governance based on political parties, rather than *usos*. We rely on propensity score matching.

The greatest challenge with the validity of propensity score is to make sure that the balancing property is satisfied.[10] Although this is not strictly a test of whether non-confoundedness actually holds, when the treated and control groups within the common support are balanced we can be more confident that the groups are actually comparable. In the end, however, we must recognize that propensity score methods are matching on observable independent variables, so we are subject to what Ho, Imai, King, and Stuart (2007) call the propensity score tautology, namely that the method depends on believing that we have successfully estimated a probability of treatment that keeps the same ordering as the unobserved true propensity score. Exact and nearest neighbor matching have some advantages over propensity scores, particularly when dealing with data that fall within few categories in its heterogeneity. But as soon as observations can be characterized by several meaningful variables that distinguish their differences, and the differences are continuous rather than discrete, there is a curse of dimensionality typical of nonparametric estimation methods, which render the implementation of these other methods not viable.[11]

Fig. 1 provides a sense of the spatial distribution of municipalities in Oaxaca governed through *usos* and political parties. The figure presents municipalities governed by *usos* in solid, while the ones governed by political parties are lightly shaded. The map also shows the municipal boundaries and the size of localities within the municipalities, where the circle diameter corresponds to the relative size. Two features become apparent from the map: *usos* is less prevalent in coastal areas and close to highways and large cities; and there is a spatial clustering (suggesting spatial dependence) in the distribution of *usos* across the territory. Although the figure does not depict this additional feature, municipalities ruled by *usos* are more likely to be observed in mountainous areas.

The propensity score we calculate makes use of these geographic features, the spatial dependence among observations, and the geographic distance of *usos* communities to features such as highways and large cities. Specifically, we calculate the propensity score as the predicted value of a probit estimation including the following variables:

(a) *Lag usos*

Usos municipalities are geographically clustered. This is a spatial lag indicating whether neighboring municipalities are ruled by *usos*. It is constructed through a weighting matrix

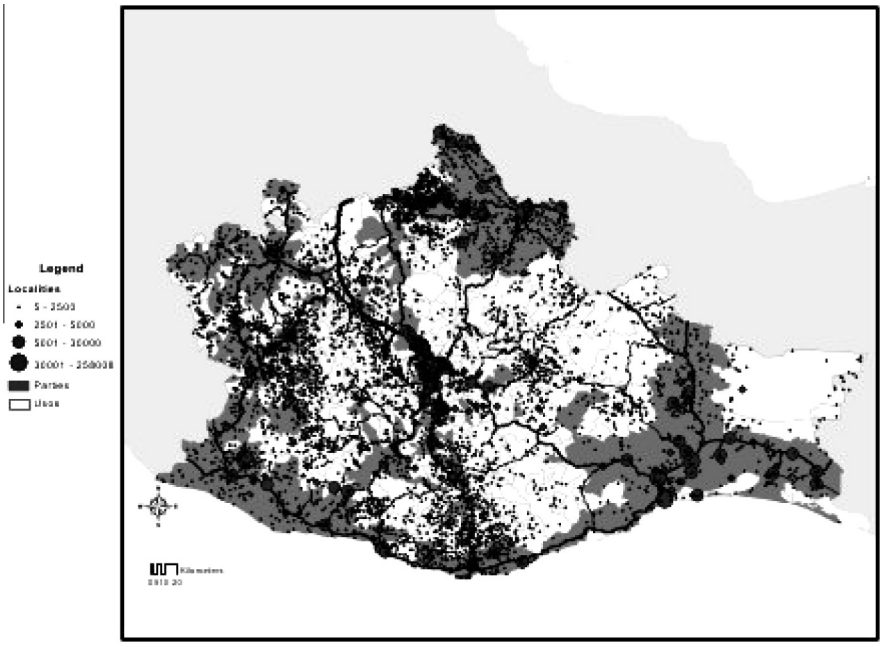

Fig. 1. *Spatial distribution of usos.*

that captures (queen) contiguity of order two, which means that a municipality is compared with the surrounding municipalities as well as those that surround the (first order) neighbors in the immediate vicinity. [12]

(b) *Territorial concentration*

Within each municipality, we calculated a Hirschman–Herfindahl index of concentration, which takes into account how scattered or concentrated the population is in localities within the political jurisdiction. Population at the locality level comes from the 2000 census, as reported by National Institute for Statistics and Geography (*INEGI* in Spanish), using localities with at least five inhabitants. This variable ranges from 1 (where all the population in the municipality is concentrated in only one locality) to a theoretical value of 0 (denoting total dispersion).

(c) *Distance city*

The Euclidean distance (straight line) in kilometers between the centroid of each municipality and the closest city with more than 100,000 inhabitants according to data from the 2000 census published by INEGI. [13]

(d) *Distance road*

The Euclidean distance in kilometers between the centroid of each municipality and the closest paved road. Roads and their quality come from *INEGI*.

(e) *Indigenous*

The presence of indigenous traditions is a precondition for the subsistence of traditional authorities. Unfortunately Mexico does not have a count of indigenous peoples based on self-ascription for 1990, although the census from 2000 and 2010 already include this information. We use the average percentage for 1990–2010 of municipal inhabitants over 5 years old who speak an indigenous language. This measure is consistent with recent conceptual clarifications in the literature on ethnic identity. Chandra (2006) argues that a proper conceptualization of ethnic identity requires to focus on descent-based features (genetic or cultural). Ethnic markers are the subset of those descent-based identifiers which are visible and costly to change in the short run.

Indigenous languages are reproduced inter-generationally within the household. Not all indigenous people speak an indigenous language, but it is reasonable to assume that people who speak an indigenous language are highly likely to be indigenous, especially given the fact that indigenous languages are not taught in Mexico's formal education system—except for special schools targeted to communities that are already indigenous. Therefore, indigenous languages in Mexico fall within the constrained descent-based category proposed by Chandra, and our measure would be a lower bound of more complete measures of ethnicity. [14]

(f) *Income*

This variable is meant to capture structural characteristics of modernization. Given that the correlation between municipal per capita GDP and the share of indigenous population is extremely high ($p = .47$), we use the residuals of a regression of municipal GDP on indigenous. Per capita GDP is obtained from the UNDP Human Development Report for Mexico, and is calculated on the basis of data from the 2000 census.

(g) *Religious and ethnic fractionalization*

Communities can be divided among ethnic, linguistic, or religious lines. Trejo (2009) has shown that the most relevant dimension of division among communities in Southern Mexico is related to the inroads of non-catholic Christian faiths. We measure a Hirschman–Herfindahl (HH) index of fractionalization with the share of religious faiths according to the 1990 and 2000 census, and use the average. We also include a coarse measure of ethnic fractionalization, which captures the average HH index of indigenous and non-indigenous populations in 1990 and 2000.

(h) *Altitude*

The average altitude of a municipality measured in kilometers above sea level. [15]

5. RESULTS

Table 2 provides the propensity score [16] using the variables detailed in the previous section. The *p*-scores were obtained using all 570 municipalities in Oaxaca for which there are available data on every variable, and that fell within the range of common support, which is [.027, .997] in this case. The mean of the scores is .74 and its standard deviation is .271. After the score was calculated there were six non-*usos* observations that fell outside of the common support region and were dropped, which leaves the effective number of municipalities at 564 for the matching exercises below.

It is important to note that the propensity score does not include dependent variables of interest, such as coverage in the provision of public goods, political participation, or social change.

Table 2. *Propensity score*

	Usos
Lag usos	**1.34** ***
	(.280)
Territorial conc.	**.763****
	(.271)
Distance city	**−.619** **
	(.243)
Distance road	**.019****
	(.009)
Indigenous	**.768** ***
	(.20)
Income (res.)	**−.00005** ***
	(.000008)
Religious Frag.	.232
	(.567)
Ethnic Frag.	−.054
	(.432)
Altitude	**.523** ***
	(.119)
Constant	**−1.24** **
	(.534)
n	570
Prob > χ^2	0.0000
Pseudo-R^2	.3585

Significance: * .1,** .05,*** .01.

Almost all the variables are statistically significant, and the fit in the estimation is very good. The specific signs are reasonable, given what we know about the historical processes that led to the retention of traditional methods of governance in indigenous communities. The positive sign of the territorial concentration variable suggests that *usos* is more prevalent in communities concentrated in one core town. Municipalities that are closer to big cities are more likely to retain traditional authorities. This variable is negative because it measures essentially distance from the capital Oaxaca City, located in the central valley. As can be seen in Fig. 1, the areas governed by parties tend to be distributed roughly in the periphery of the state.

Municipalities that have kept their linguistic distinctiveness according to the indigenous variable are more likely to keep *usos*. Richer places as denoted by the Income variable are likely to be governed by political parties. Higher places in the mountains are more likely to be ruled by traditional methods, and ethnic or religious conflict do not show any effect, although the measures we use here are coarse and need refinement.

Table 3 presents a test of balance in the propensity score over the common support. The table reports results of difference in means tests between the treatment and the control groups (*usos* vs. parties) in each of seven optimal blocks where the propensity score is not statistically different between groups, for each correlate. The table reports the difference in means and the standard errors. None of the differences is statistically significant at the 99% level.

The propensity score provides useful counterfactuals to compare matched places ruled by *usos* with others ruled by political parties. The 1995 political reform allowed municipalities to switch away from a party-based system in which the PRI used to control virtually all municipalities in the state of Oaxaca.

When the reform was carried out, some municipalities were perhaps already governed by traditional customs *de facto*. In those cases the reform might not have fully changed the system of government, but provided legal certitude and backing to the traditional practices. More importantly for our own purposes, the reform allowed indigenous communities to retain autonomy and insulate decision-making in their municipalities from party factionalism by eliminating party elections altogether. Our relevant comparison is therefore between autonomous indigenous communities versus non-autonomous ones.

We can think of *usos* as a variable that captures underlying political practices and social capital that may influence the provision of public goods and other municipal characteristics. The variables of interest are the first differences and the rate of change of public good coverage between the census (or population counts) of 1990–2000, 1995–2005, 2000–2010 and finally the overall changes from 1990–2010.

Table 4 reports kernel density matching average treatment effects on the treated (ATT) on variables of public good provision. [17] The propensity score is recalculated $B = 1000$ times in each matching exercise to measure the uncertainty surrounding the estimation. The table measures whether *usos* as a governance structure is significantly linked to the evolution of the provision of public goods. The variables reported are changes in the percentage of the municipal households who have water, sewerage, electricity, and that are illiterate.

The ATT are small and statistically non-significant for the provision of water, both for the change in levels and for the rate of change. The provision of sewerage shows a strongly positive and very significant change in levels and rate of change in the period immediate after the reform (1995–2005), and a lower rate of change for the period 2000–10, where the change in absolute levels is not significant.

Since the measures we use are percentages, in both groups the provision of sewerage is barely catching up with the increase in the number of households—we would otherwise see a non-zero effect in the *levels*. Nevertheless, a 5% increase in a place with high overall levels is different from a 5% increase in a place with low levels. Because the rate of change is simply the difference in levels conditional on the initial value, it is informative about the relative magnitude that the changes in

Table 3. *Balance tests (Dependent variable: usos)*

	Blocks						
	1	2	3	4	5	6	7
Lag usos	.028	.077	−.064	−.111	.057	.019	−.003
	(.085)	(.223)	(.150)	(.072)	(.047)	(.040)	(.063)
Fragmentation	−.021	−.052	.102	.01	−.091	.107	−.019
	(.132)	(.283)	(.176)	(.074)	(.068)	(.061)	(.172)
Distance city	.271	.320	.106	.018	−.057	−.096	−.012
	(.202)	(.36)	(.254)	(.094)	(.081)	(.066)	(.125)
Distance road	.383	−2.06	.409	4.55	.183	−2.05	−4.80
	(1.76)	(.88)	(1.79)	(1.99)	(1.61)	(2.06)	(6.18)
Indigenous	−.218	.245	.314	−.076	.054	−.059	.244
	(.128)	(.297)	(.147)	(.084)	(.077)	(.090)	(.196)
Income (res.)	−10423	3120	2753.4	1064.6	801.6	1053.8	3710.8
	(5958)	(9255)	(10288.3)	(2662.1)	(1683.7)	(1363.5)	(2939.4)
Religious Frag.	.076	−.060	.117	−.066	−.006	.014	.013
	(.049)	(.124)	(.061)	(.033)	(.029)	(.032)	(.079)
Ethnic Frag.	−0.92	.063	−.108	.025	−.038	.039	.018
	(..072)	(.117)	(.088)	(.047)	(.038)	(.043)	(.085)
Altitude	−.227	.021	−.155	.329	−.107	−.046	−.026
	(.128)	(.323)	(.315)	(.164)	(.131)	(.112)	(.225)
Treated	5	2	7	31	71	90	212
Control	41	17	7	29	27	21	4
Observations	46	19	14	60	98	111	216

Table 4. *ATT for public goods*

	1990–2000		2000–10		1995–2005		1990–2010	
	Δ	%Δ	Δ	%Δ	Δ	%Δ	Δ	%Δ
Water	−.012	.062	.000	−2.64	.041	−.417	.027	.17
	(.022)	(.129)	(.054)	(4.19)	0.049	0.466	0.03	0.285
	−.538	.485	.006	−.63	.836	−.894	.893	.595
Sewerage	−.037	−1.27	−.008	**3.401** ***	**.086** ***	**9.05** ***	−.04	.851
	(.035)	(1.72)	(.022)	(.871)	.034	2.18	.049	2.99
	−1.077	−.74	−.371	3.905	2.55	4.15	−.821	.285
Electricity	**.036** *	**.982** ***	**.031** ***	.217	**.022** *	0.337	**.07** ***	**1.421** ***
	(.019)	(.381)	(.012)	(.148)	0.011	.335	0.023	.428
	1.89	2.576	2.62	1.47	1.895	1.004	2.99	3.32
Illiteracy	.007	**.03** *	−.009	−.01	−.004	−.000	−.002	.008
	(.010)	(.017)	(.010)	(.016)	.005	0.016	.019	0.018
	.734	1.81	−.926	−.61	−.751	−.031	−.118	.423

Treated = 418, Control = 146 (over common support).
Note: Cells report ATT, bootstrapped standard errors ($B = 1000$) and t-value, respectively.
Significance: *.1, **.05, ***.01.

level represent. So a zero effect in the ATT looking at changes in level means that services are being provided as fast as the growth in households, and a positive effect in the rate of change tells us that *usos* municipalities are growing faster.

A similar logic applies to the provision of electricity. *Usos* places seem to be more effective in finding ways to extend the coverage of electricity more widely among their inhabitants. Our results show a higher percentage of new households with electricity during both decades under study, and a faster rate of change for the 1990–2000 period, but no significantly different rate of change for the decades of 1995–2005 or 2000–10. Overall, electricity shows a positive net effect in the absolute levels and a faster rate of convergence in municipalities governed by *usos*. We acknowledge one reviewer in pointing out that such an effect would more convincingly relate *usos* to the provision of electricity. [18] Finally, literacy (a proxy for schools) shows a positive effect only for the rate of change in the decade 1990–2000.

These results allow us conjecture that the effects of *usos* differ across time frames. In the short run, electricity shows a positive effect of .036 during 1990–2000, and then a slightly lower effect in the next decade, some ten years after *usos* was formally instituted. Sewerage is more difficult to provide than electricity, and so we see that the effects of direct democracy take some time to show in the data, and can thus be considered long-term effects.

Table 5 makes a similar exercise for variables related to political participation. It reports the difference between the federal presidential electoral patterns in 1994 and 2000 at the municipal level. [19] The first five variables are measured in first differences, testing whether electoral competition at the federal level was depressed, or parties became entrenched due to the *usos* reform. They report respectively the ATT for the differences in the margin of victory, the effective number of parties, the share of the PRI, the PAN and the PRD. None of these are statistically significant. If anything, the signs suggest a slight increase in competitiveness as denoted by the effective number of parties.

If we look at the historical evolution of the effective number of parties in Oaxaca [20] from 1980 to 2010 in Fig. 2, municipalities now governed by *usos* voted almost in block for the ruling regime-party, the PRI. As soon as the local congress allowed municipalities to choose their governance type, they defected *en masse* to the new governance system. Had these municipalities truly been PRI bastions we would expect a lower level of defection to traditional rules, and a significant result in Table 5: the political machinery of the PRI, had it really existed, would with some likelihood guarantee a disproportionate

Table 5. *Socio-economic and public good provision matching*

	ATT	SE	t
Difference margin	−0.011	0.035	−0.321
Diff Number of Parties	0.142	0.093	1.533
Difference PRI	−0.008	0.024	−0.33
Difference PAN	0.011	0.015	0.692
Difference PRD	−0.013	0.02	−0.671
Former Mayor	−0.011	0.022	−0.497
Sessions	−1.423	4.513	−0.315
Open Sessions	**2.136**	**1.137**	**1.879**
Female Council Members	**−0.052**	**0.019**	**−2.727**
Female mayors	**−0.025**	**0.012**	**−2.08**

Treated = 412.
Control = 228.

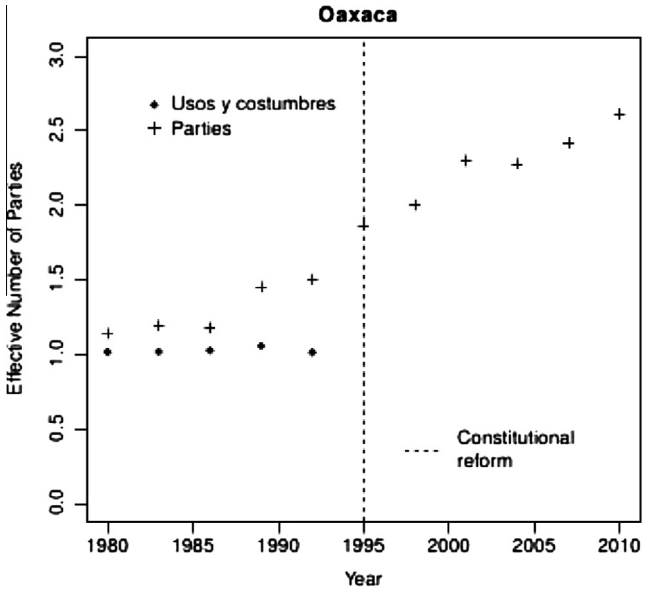

Fig. 2. *Effective number of parties in Oaxaca for 1980–2010 by governance type. After the local constitutional amendment of 1995, which is marked with a dotted line, less than 10 out of the current 418 municipalities of usos kept the party system for some elections more, but are not shown for clarity.*

share for the PRI in federal elections, particularly in the decade in which the PRI's hegemony was withering away.

Both results strongly suggest that there is no evidence of an entrenchment of PRI politicians, as has been generally argued by scholars such as Benton (2012) or Recondo (2007). *Usos* municipalities exhibit very similar levels of party competition at the federal level than party municipalities, which means that the PAN, the PRD, and other political parties have been able to make similar inroads in these impoverished communities than in the ones that allow political parties to contest for municipal elections.

The last five rows in Table 5 show results regarding civic participation in collective decision-making and whether there might be entrenchment or capture by local elites. We use data from the Survey to Municipal Presidents on Social Development. [21] The first item asks whether the current mayor has previously held the post. Although there is no immediate reelection in Mexico, it is not uncommon for entrenched *caciques* to be mayors again after some terms. There is no evidence that in *usos* the same mayor has held office more frequently, and in fact, from the anthropological literature what emerges is more a sense of rotation in charges, including the duty of mayor.

The next variables are all related to political engagement at the municipal level. The Social Development survey asks mayors how often they carry out council meetings, and whether those are sessions open to citizens. Although there is no difference in the average number of council meetings, in municipalities ruled by *usos* those meetings are open to citizens more often. As shown in Table 1 above, data from our own survey research in the state of Oaxaca further corroborates that in *usos* municipalities there is ample civic engagement in collective decision-making whereas in party municipalities citizens remain frankly disengaged (Díaz-Cayeros, Magaloni, and Ruiz-Euler, 2010).

Finally, the table reports two indicators of governance where *usos* does not fare as well as places ruled by political parties. These are related to female participation in the top echelons of municipal government. The variables measure the share of the municipal council made up by women, and whether the current mayor is a woman, as reported by the National Municipal Information System [22] in 2002. The ATT suggest that in *usos* there is a smaller participation of women in high office. This is in keeping with the findings of Eisenstadt (2007).

6. CONCLUSION AND FUTURE RESEARCH

Previous research focusing on the provision of local public goods recognizes three main reasons for variation in the success societies have in providing them: ethnic diversity (or more in general, social heterogeneity), state capacity, and local government accountability. Our analysis contributes to this research agenda by focusing on the effects of local governance structures on the provision of public goods. The evidence we have presented points to a less pessimistic view about the effects of traditional governance systems in indigenous Mexico.

Our hypothesis was that municipalities governed by *usos* would show different overall levels and rates of convergence in the provision of public goods because of (a) the political processes that lead to the allocation of municipal funds to collective projects through direct democracy, and (b) because municipalities receive federal funds (bypassing the state coffers) specifically aimed at social infrastructure, that depend on a formula and that cannot be withdrawn for electoral purposes. Systems of governance based on electoral competition among political parties differ essentially from *usos* because decisions are taken by politicians without an ongoing process of consultation with the citizenry. The monitoring and sanctioning dynamics that come into play when citizens gather in public assemblies are usually absent in party-run municipalities, and thus the allocation of resources for public goods seems sub-optimal.

In order to assess the effects of local governance institutions on the provision of public goods we have used propensity-score matching and a first differences approach to generate inferences from observational data. Our research design exploited variation in informal collective-action solving organizations that can be characterized as a form of participatory democracy embedded in formal municipal institutions. *Usos* presents higher rates of change in the provision of services, no evidence of encroachment by local bosses (*caciques*), and higher overall levels of citizen involvement in municipal life.

Further research must deepen our understanding of the mechanisms and structural characteristics of *usos* that explain the differential rates of change in the provision of public goods and in particular electricity and sewerage. [23] Furthermore, attention should be paid to the nature of the public goods provided with regard to their spill-over effects, and the complex interaction they have with self provision. It is possible that different types of public goods might be impacted by governance type in different ways.

The differences between the two types of governance that we presented in the paper point to a broader discussion of the organization of democracy. The delegated format of decision-making in electoral democracies dominated by political parties seems to bear a higher risk of agency loss than deliberative decision-making of what is often referred to as participatory democracy.

Although modern societies are, by their size and complexity, not the ideal locus of participatory democracy, there are lessons to be extracted from the fact that, with regard to the provision of some basic services, a non-partisan political

arrangement presented some advantages over the widespread electoral and party-based democratic organization. Participation and collective monitoring of authority are hugely important to maximize collective well-being.

In the context of participatory budgeting, much has been discussed about the empowering role of deliberative bodies. However, as noted by Pateman (2012: 14): "The spread of 'participatory budgeting' around the world tends to involve measures that, rather curiously and despite their label, *do not involve the municipal or local budget*. Citizens are frequently discussing relatively small, discretionary sums of money that may or may not continue to be made available". In contrast to examples like the much publicized case of Porto Alegre in Brazil, *usos* municipalities have truly adopted a form of participation that allocates through deliberation substantial amounts of funds that cannot be withdrawn for electoral purposes. In a very real sense, this challenges the role of political parties by reinvigorating democratic practices of deliberation and decision-making.

A related line of thought is that *usos* practices may teach some lessons to the profound crisis of political parties across countries, especially in new democracies (Hagopian & Mainwaring, 2005; Levitsky, 2005; Mainwaring, Bejarano, & Leongómez, 2006; Smith, 2005). When new democracies cannot provide a minimum basis of material well-being, support for democracy erodes substantially, opening the door to clientelistic parties, anti-systemic leaders, and in extreme cases to authoritarian setbacks. The quality of new democracies seems directly linked to the perception of government capacity to provide minimal well-being. Public goods are an integral part of this function. Rethinking the way electoral and party-based systems of governance work, and contrasting their logic with other forms of participatory democracy (of which *usos* is a good example) should prove valuable in the ongoing effort of institutional design to which all democracies are subject.

Two policy prescriptions emerge from our results. First, development policy should take seriously the effects of real participatory democracy combined with funds that are shielded from electoral and bureaucratic pressures. Second, our results suggest the need to reevaluate the possibility of establishing *usos* beyond Oaxaca in Mexico, particularly in other indigenous areas such as Chiapas, where *usos* are not formally recognized. In that state the lack of reforms to grant municipal indigenous autonomy seems more a counterinsurgency strategy than about fulfilling developmental goals. Not recognizing traditional forms of governance might, paradoxically, work against the development needs that fueled the Zapatista rebellion of 1994 in the first place.

NOTES

1. For example, Acemoglu, Johnson, and Robinson (2001) deployed an instrument for good institutions (settler mortality rates) rather than any direct measure of it. In Fearon and Laitin (2003) the conditions that favor insurgency are linked to the "strength of the state" but the authors use a set of proxies (e.g., GDP/capita, mountainous terrain, reliance on oil revenues) instead of measuring state strength directly.

2. Bardhan and Mookherjee (2000) have shown, in a formal model, that centralized systems of public service delivery are more subject to corruption. However, they also note that local elites might capture governments making them less efficient than a centralized arrangement. Besley and Coate (2003) have provided a model in which the advantages of decentralization depend on legislative behavior and how jurisdictional spillovers and conflicts arising from the variance in preferences over public good provision across places are mediated by the political system. Despite these theoretical advances, we are only starting to understand the links between democratic accountability, local public good provision, and decentralization.

3. In an empirical evaluation of Sen's (1981) influential hypothesis that democracy prevents famines, Besley and Burgess (2002) have shown that Indian states with greater freedom of the press are more likely to deliver disaster relief. Besley and Prat (2001) have similar findings for a cross section of countries.

4. For a general critique of participatory models of local level development see Platteau (2004).

5. While the allocation of funds across states has been historically characterized by a large degree of path dependence (Costa-i-Font and Rodríguez-Oreggia, 2006), in the sense that there has been a large degree of inertia in the way overall public expenditure has been regionally allocated, during the 1990s the architecture of fiscal transfers was transformed as a consequence of both the realities of international markets and the pressures of political change. Highly discretionary federal public investment used to comprise a very large share of the resources available for state and local governments. But since decentralization in the 1990s most of the transfers are fixed according to formulas.

6. The Oaxacan congress passed a law allowing for election by *usos y costumbres* in September of 1995, and in the municipal elections held two months later, 412 municipalities chose to select their leaders under this law's provision (and as the details of the law were ironed out, six additional municipalities joined).

7. Although our field research revealed that this practice has changed in the last years, with women being allowed to participate and vote in most places.

8. Traditionally women were excluded from many of these duties. Field research reveals that since the introduction of conditional cash transfer programs in 1997 (*Progresa*/now *Oportunidades*), women got more deeply engaged in the life of the community, and now serve in health and education committees sponsored by the program. Women are also increasingly performing other important "cargos", but evidence from our qualitative field work also suggests that it is usually not high-level responsibilities.

9. Our interviews attributed the gradual abandonment of physical punishment to the presence of the Human Rights Commissions, which received complaints of human rights violations from members of the communities.

10. Such that the conditional distribution of x given a balancing score $b(x)$ is the same for treated $z = 1$ and control $z = 0$ units (Rosenbaum & Rubin, 1983).

11. For additional discussions about the effects of multidimensionality on the performance of classifiers see Hastie, Tibshirani, Friedman, and Franklin (2005) and King et al. (2011).

12. The spatial lag was calculated using the statistical software GeoDA developed by Anselin, Syabri, and Kho (2006).

13. Distances for this and the next variable were calculated using the ArcGIS software from ESRI.

14. Provided independence across categories.

15. Calculated using ArcGIS on the basis of raster files from INEGI.

16. Calculated using Becker and Ichino (2002).

17. As calculated with the *attk* routine in Stata.

18. A simple OLS model regressing the rate of change for electricity on the previous level shows an effect of $\beta = -.53$ for both governance types in the first period, and of $\beta = -6.18$ for *usos* and $\beta = -.94$ for parties in the second period. For sewerage the coefficients are non-distriguishale from zero in the first period; and $\beta = -17.21$ for *usos* and $\beta = -8.83$ for parties in the second period. These coefficients point out the different rates of convergence toward full coverage across governance types.

19. It should be noted that the choice of *usos* did not limit partisan political competition for posts at higher levels of government.

20. Constructed using an inverse Herfindahl–Hirschman index with vote shares per party, per election, and averaging for each year.

21. *Encuesta Nacional para Presidentes Municipales Sobre Desarrollo Social* in Spanish, carried out by the Secretariat of Social Development in 2002.

22. *Sistema Nacional de Informacion Muncipal* (SNIM) produced by the Secretariat of Government.

23. In a household level survey we conducted in the state of Oaxaca in 2009, we find higher levels of civic engagement and political participation and a more egalitarian distribution of public goods within communities governed by *usos*. Household-level data might shed more light on the interaction between individual-level characteristics (such as gender, age, income, political resources, or partisanship) and governance type.

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