

Gerrymandering Opposition: Minority-Concentrated Districts and Electoral Competition in Mexico

Anne Meng¹ · Brian Palmer-Rubin²

© Springer Science+Business Media New York 2015

Abstract Can institutions that are designed to improve minority representation also have an effect on electoral competition? We address this question by examining how minority-concentrated districts (MCDs)—designed to empower indigenous populations—affected minority participation and party competition in Mexico. Using an original dataset and a matching design that helps alleviate causal inference problems inherent to observational studies, we find that MCDs had no effect on minority participation but enhanced electoral competition. Field-research reveals that MCDs weakened one-party dominance by assembling minority voting blocs that were amenable to opposition-party appeals. More broadly, our results suggest that the mobilization of minority voting blocs can promote electoral competition in transitional democracies.

Keywords Redistricting · Minority participation · Electoral competition · Indigenous politics · Mexico

Multi-ethnic societies undergoing democratization often face two challenges: representing minorities and promoting electoral competition. States commonly address minority underrepresentation by adopting institutions such as minority-concentrated electoral districts, legislative quotas, and proportional representation. However, whether such institutions achieve their desired goals remains contested. Furthermore, establishing effective multi-party competition often presents the additional challenge of dismantling dominant-party strongholds inherited from the previous regime. Many

Electronic supplementary material The online version of this article (doi:10.1007/s12116-015-9206-2) contains supplementary material, which is available to authorized users.

✉ Brian Palmer-Rubin
Brian_Palmer-Rubin@hks.harvard.edu

¹ Travers Department of Political Science, University of California, Berkeley, CA, USA

² Ash Center for Democratic Governance and Innovation, Harvard Kennedy School, Cambridge, MA, USA

countries that hold regular elections still suffer from one-party dominance, either on the national level or in some subnational units. Can institutions that are designed to deal with the problem of minority underrepresentation also have an effect on electoral competition?

In this paper, we address this question by analyzing the effects of indigenous-concentrated congressional districts in Mexico, a country that experienced an extended period of one-party dominance. These districts, which we call minority-concentrated districts (MCDs),¹ were created in 2005 to encourage the political participation of the historically marginalized indigenous population, our minority group of interest. We observe the effect of these districts on the electoral participation of indigenous voters moved into such districts and examine how this reform affected electoral competition in redistricted municipalities. We find that these institutions had little effect on minority participation but that they enhanced multi-party competition in a surprising way by allowing opposition parties to penetrate dominant-party strongholds.

This project implements a multi-method strategy, combining statistical approaches that exploit variation induced by redistricting with field research findings aimed at identifying mechanisms. Our quantitative identification strategy capitalizes on an episode in Mexico in 2005 where congressional district boundaries were redrawn, reassigning some highly indigenous municipalities to MCDs that concentrated indigenous voters. We estimate the effect of this intervention on turnout, dominant-party vote share, and vote margins. We also conduct process tracing using field-research findings to illustrate the causal process connecting MCDs to minority voting behavior in Mexico.

This article contributes to the nascent literature on minority participation in transitional democracies by measuring the effect of MCDs on turnout in Mexico. Adapting a research design developed by Sekhon and Tituink (2012), we exploit variation induced by redistricting and implement a matching design that helps alleviate causal-inference problems inherent to observational data to estimate the effect of MCDs on minority participation. We find no significant effect of MCDs on minority turnout. We argue that there is a lack of an effect because members of Mexico's indigenous minority have historically been incorporated in the dominant party—albeit in a marginalized way—and participated in elections at roughly the same rate as non-indigenous rural populations prior to the reform.

We also extend beyond the typical approach to studying MCDs by examining their effect on electoral competition and one-party dominance. Given that MCDs alter the demographic composition of congressional districts, it stands to reason that they may affect the competitive balance between parties that challenge for office. We redeploy the above-described matching design to gauge the effect of MCDs on dominant-party vote share and margins between the top two vote-getting parties in a municipality. If MCDs enhance electoral competition, municipalities assigned to these districts should reflect a lower vote share for the dominant party as well as lower vote margins. We find that MCDs have a significant negative effect on dominant-party vote share and on vote margins, suggesting that the creation of these districts bolstered electoral competition.

¹ We use the term minority-concentrated districts (MCDs) rather than the more conventional majority-minority districts because we adopt the Mexican government's threshold for such a district, which is that at least 40 % of its inhabitants are ethnic minorities.

We use qualitative findings to show that the creation of congressional districts that concentrated minority voters provided opposition parties with an opportunity to penetrate dominant-party strongholds by mobilizing these new voting blocs.

This paper makes three important contributions. First, we evaluate whether a policy intervention, designed to empower Mexico's indigenous population, achieved one of its normative goals: increasing indigenous voter turnout. Despite the prevalence of minority-promoting institutions in new democracies, few empirical studies outside of the USA test the efficacy of such institutions. Our paper joins a nascent group of scholarship in comparative politics that estimates the effect of MCDs, legislative quotas, and proportional representation on minority representation. Second, we illustrate how minority-promoting electoral institutions can introduce electoral competition by opening up new space for opposition parties to compete with entrenched dominant parties—a surprising consequence of MCDs. Finally, we make a methodological contribution to the comparative politics literature by implementing a research design that exploits redistricting to estimate the causal effect of MCDs.

The next section of this paper presents our argument of voter mobilization in MCDs in light of existing scholarship. We then conduct an overview of indigenous politics and party competition in Mexico. We test the effect of MCDs on voter turnout, dominant-party vote share, and vote margins in the following section, exploiting a redistricting initiative that occurred in 2005 as part of our identification strategy. We present our data, research design, and empirical findings, as well as ecological-inference analysis. We then present field-research findings from the state of Chiapas to provide evidence that MCDs increased electoral competition and weakened the dominant party through the mechanism of opposition-party appeals to minorities who had previously voted overwhelmingly for the dominant party. We conclude by discussing the implications of our study for broader debates of minority representation and electoral competition in transitional democracies.

Voter Mobilization in Minority-Concentrated Districts

MCDs have been created in the USA and elsewhere to enhance minority participation in electoral politics and representation in policymaking. It is contested whether such institutions achieve these goals in the USA, and scholars are only beginning to address their impacts in transitional democracies. Bobo and Gilliam (1990) contend that having minority officeholders empowers minority constituents, yielding greater participation. They argue that “(b)lacks in high empowerment areas (cities with black mayors) should feel more trusting of government, express higher levels of efficacy, and become more knowledgeable about politics than blacks in low-empowerment areas. All of which should, in turn, contribute to higher levels of participation” (p. 379). Subsequent studies of MCDs in the USA have found evidence in line with the “minority empowerment theory”: these districts yield more minority officeholders and greater minority turnout (Tate 1991; Voss and Lublin 2001; Barreto, Villarreal, and Woods 2005; Barreto 2007). On the other hand, Gay (2001) finds that the presence of minority incumbents actually lowers white political participation, rather than enhancing minority turnout. In a study of redistricting more broadly, Hayes and McKee (2009) contend that the redrawing of district boundaries raises information costs for voters by severing ties between

incumbents and their constituents and thus can actually lower participation. In a separate study, they find that this “disruptive” effect of redistricting disproportionately affects minority voters, who face higher information costs than majority-group voters. However, when minorities are redrawn into a minority candidate’s district, the effect is reversed and redistricting enhances minority participation (Hayes and McKee 2012).

MCDs’ purported effect on minority participation has also been challenged on methodological grounds. Sekhon and Tituik (2012) show that observational studies that compare MCDs with non-MCDs without taking into account how these districts are drawn yield biased estimates. Henderson, Sekhon, and Tituik (2012) and Keele and White (2011) find no effect of MCDs on minority turnout after adjusting for selection effects—namely that minorities who were moved into these districts were more participatory than minorities who were left in non-MCDs. These findings suggest that estimates of MCDs’ effects must control for political biases in the redistricting process.

Adapting Sekhon and Tituik’s research design to deal with such biases, a first goal of this paper is to contribute to the burgeoning group of scholars that analyze minority-promoting electoral institutions outside of the USA. Only a handful of existing studies examine MCDs or other minority-promoting institutions such as quotas on minority participation in transitional democracies, and their findings have been mixed. Goodnow and Moser (2012) find that majority-minority districts in Russia increase minority turnout when a minority is on the ballot, in line with minority empowerment theory. If this theory holds in our case, we should find that indigenous voters who have been reassigned to MCDs turn out in larger numbers than indigenous voters who have not. On the other hand, studies of legislative quotas for Scheduled Castes (SCs) in India have found that turnout *decreases* in constituencies reserved for SC candidates, in part because voters are not convinced that SC representatives would promote their interests as well as previous non-SC representatives (Jensenius 2013; McMillan 2005). These mixed findings suggest that the effect of minority-promoting electoral institutions on minority participation is contingent on pre-existing alignments between ethnic minorities and political parties. In the Mexican case we consider how political parties mobilized indigenous populations prior to redistricting to understand how MCDs influenced indigenous turnout. If minorities were historically mobilized effectively through patronage appeals, then we would not expect MCDs to find a minority empowerment effect.

Our second goal is to extend beyond the typical approach to the study of MCDs to examine their effect on electoral competition in transitional democracies. Even after such countries experience national transitions to multi-party competition, formerly dominant parties often remain unchallenged in certain electoral races. For example, in many countries that have democratized at the national level, “subnational authoritarian” enclaves persist, where dominant parties manipulate state resources and erect barriers to opposition-party entry (Gibson 2012; Giraudy 2010). Here, we argue that MCDs—institutions designed to bolster minority participation—can have unexpected consequences for electoral competition.

Research on the partisan effects of redistricting in American politics suggests that the creation of MCDs can have a dampening effect on two-party competition (Brace, Grofman, and Handley 1987; Hill 1995). This occurs because MCDs “pack” a limited number of districts with minority voters who, in the USA, are expected to vote for the

Democratic Party. Doing so, however, comes at the expense of making other districts *less* competitive for the Democratic Party because minority voters have been siphoned off to MCDs.² However, we expect the effect of MCDs on electoral competition to differ in Mexico, where indigenous voters do not have the same bonds of loyalty and programmatic congruence with a given party as minority voters have with the Democratic party in the USA. Rather, Mexico's indigenous populations were incorporated into the dominant party in the post-revolutionary period through a state corporatist system that rewarded loyalty with patronage and punished dissent with repression and withdrawal of financial resources (Rus 1994; Diaz-Cayeros, Magaloni, and Weingast 2003). Because of this, when minority voting blocs are provided with a viable and appealing alternative, we would expect them to be amenable to party switching.

In fact, a number of existing studies have uncovered cases of opposition parties that penetrated one-party dominance by courting previously disenfranchised or electorally demobilized constituencies. Chhibber (1999), for example, shows how the dominance of the Congress Party in India declined when opposition parties catalyzed a cleavage between upper and lower castes. Scholars of the USA argue that the 1965 Voting Rights Act, which enfranchised black voters by prohibiting poll taxes, literacy tests, and all-white primaries helped the Republican Party penetrate the once Democrat-dominated South (Valelly 2004; Mickey 2008). Following a similar logic, scholars of ethnic voting in new and transitional democracies have noted that minority groups often form *de facto* voting blocs by strategically voting with their ethnic group, often for co-ethnic candidates, whom they presume will reward them with favorable policies or discretionary spending (Birnie 2007; Chandra 2004; Posner 2005). Other scholars have studied the electoral consequences of an institutional reform in Mexico—the creation of municipal-level indigenous autonomy regimes (*Usos y Costumbres*) in Oaxaca, a state notable for subnational authoritarianism (Benton 2012; Cleary 2009; Eisenstadt 2007). They find that this reform enhanced one-party dominance, in large part because the dominant party manipulated the reform to empower its indigenous allies.

Building on these studies, we argue that the creation of MCDs can enhance electoral competition and diminish one-party dominance by opening space for previously non-competitive parties to build new constituencies. When minority voters are reassigned from districts with low minority populations to MCDs, minority groups become newly influential voting blocs in these districts. It follows that all political parties have a heightened incentive to incorporate these groups into their coalitions given their increased electoral weight. Parties may appeal to minority voters through targeted patronage offers or the nomination of minority candidates for elected office. Minority voters—if capable of acting collectively—are prone to throw their support behind the party that most credibly promises to deliver such inducements. A sizeable and sudden change in the ethnic composition of a district may enhance opposition parties' ability to make such promises to minority groups in two ways. First, dominant parties are often constrained by commitments to entrenched majority-group constituencies that were constructed during their period of rule while the lack of a deeply rooted constituency affords opposition parties more flexibility to divert electoral inducements to minorities

² Cameron, Epstein, and O'Halloran (1996) point out that this concentration of minority voters also reduces overall support for legislation that advances minority interests.

in the aftermath of redistricting. Second, if the opposition party had already positioned itself as the minority-friendly option prior to redistricting, the creation of MCDs may signal to minority voters in such districts that the opposition party stands a stronger chance of winning—and thus will control local budgets which can be used to deliver patronage.

Where opposition parties are successful at gaining a following among minority voters in MCDs, elections will become more closely contested. We probe for this association in the Mexican case by comparing dominant-party vote share and margins between the top two vote-getting parties in congressional elections for municipalities in MCDs and non-MCDs. If our argument holds, we should find that opposition parties were more successful at attracting indigenous voters in MCDs following redistricting than in non-MCDs, yielding more competitive elections.

This hypothesized effect of MCDs on electoral competition can have a limited duration, as the dominant party may eventually break ties with non-minorities and make appeals to indigenous voters that are competitive with opposition-party appeals. Even if the once-dominant party does “catch up” in this way, however, the effect of MCDs remains meaningful, as it has created conditions propitious for opposition parties to weaken dominant-party strongholds.

Indigenous Politics and Party Competition in Mexico

The Mexican case offers a propitious context to observe the electoral effects of MCDs owing to the presence of a politicized ethnic minority and a history of dominant-party rule. Like many Latin American countries, the bulk of Mexico’s population belongs to two broad ethnic categories: indigenous and *mestizo*. Mexico’s indigenous population, our minority group of interest, constitutes roughly ten million people, making up 9.5 % of the national population and is the largest indigenous population in any Latin American country. Although existing definitions of indigeneity identify multiple dimensions, we adopt a common proxy based on whether citizens report speaking an indigenous language in the 2005 census. The dominant ethnic group is *mestizo*, which we define as including all Mexicans who do not report speaking an indigenous language. The indigenous population in Mexico is composed of 62 distinct ethnolinguistic groups, the majority concentrated in the southeastern region of the country. Fifty-eight percent of Mexico’s indigenous live in the five states of Oaxaca, Chiapas, Veracruz, Yucatan, and Puebla (Mexico’s National Commission for the Development of Indigenous Peoples (http://www.cdi.gob.mx/index.php?option=com_content&view=article&id=758&Itemid=68)). However, sizeable indigenous populations (at least 50,000) appear in 23 of Mexico’s 32 states. The indigenous tend to live in poor rural areas and experience significantly lower levels of almost all social-development indicators than the general Mexican population (UNDP 2010); 79.3 % of Mexico’s indigenous live in poverty and 40.2 % live in extreme poverty, compared with 44.1 and 8.5 % for the general Mexican population (CONEVAL 2010).

Indigenous populations have also historically been marginalized from political power, but mobilized electorally in favor of the dominant party through patron-client relationships with local *mestizo* elites. Beginning in 1936, several indigenous

communities were incorporated into the corporatist structure of the ruling party through the Sindicato de Trabajadores Indígenas (Indigenous Workers' Union), granting these populations access to land and financial benefits in exchange for political quiescence (Rus 1994). Throughout the twentieth century, indigenous authorities within the dominant Institutional Revolutionary Party (PRI) were subordinate to the party's *mestizo*-dominated sectors, such as the National Peasant Confederation (CNC), assuring that indigenous figures rarely occupied important leadership posts within the party or were nominated for elected office. Nonetheless, clientelist mobilization has historically turned out indigenous voters in large numbers for the PRI. In fact, municipal-level ecological-inference estimates suggest that indigenous voters were turning out in higher percentages than *mestizo* voters prior to the 2005 redistricting—an average of 44 % indigenous turnout versus 42 % *mestizo* turnout in the 2003 legislative election and 49 % indigenous turnout versus 40 % *mestizo* turnout in the 1997 election.

Despite this broad support for the PRI, important instances of indigenous rebellion began to emerge in southern Mexico in the last decades of the twentieth century. Non-state actors—including Catholic and Protestant missionaries—helped construct networks between diverse indigenous communities and create a pan-indigenous identity that found its expression in a series of uprisings, most famously the 1994 Zapatista movement in Chiapas (Harvey 1998; Trejo 2009). While the Zapatista movement conspicuously spurned electoral politics, other contentious indigenous organizations formed party alliances in the aftermath of widespread protest.

Mexico has a notable legacy of dominant-party rule by the PRI, though the 2005 redistricting reform took place during a period of national-level decline for the PRI, including the loss of the presidency to the National Action Party (PAN) in 2000. Having held the governorship of all 32 states since its inception in 1929 until 1989, by 2005 the PRI had lost at least one gubernatorial election in 15 states to the PAN or the Party of the Democratic Revolution (PRD), the two main opposition parties. Furthermore, the congressional period during which the redistricting took place (2003–2006) was the first time since its inception that the PRI did not control the presidency nor held a majority of seats in either congressional chamber.

Despite this national-level slump, the PRI retained a significant advantage in electoral politics in many subnational units, particularly in predominantly indigenous regions. For example, in the 2003 congressional election, the PRI won 22 out of 23 possible seats in Chiapas and Oaxaca, the two states with the largest indigenous populations. The PRI enjoyed large vote advantages among indigenous populations, owing to long-standing patron-client relationships with these groups and cooptation of local indigenous authorities and the PAN and PRD's lack of party infrastructure in the countryside. Given the upsurge in indigenous activism beginning in 1994, corresponding with national trends of increased multi-party competition, opposition parties saw an opportunity to break the PRI's stranglehold in highly indigenous states by courting indigenous voters. They were largely successful; of the 23 districts in Chiapas and Oaxaca, the PRI only won 9 in 2006 and 13 in 2009.

Statistical Analysis: Redistricting and Minority Voting

To identify the effect of MCDs on minority turnout, dominant-party vote share, and electoral competition, we capitalize on a 2005 redistricting initiative that reassigned some municipalities to MCDs. The creation of new MCDs—defined as districts with indigenous populations greater than 40 %—was an overtly stated goal of the redistricting process.

We constructed an original dataset with electoral, demographic, and socioeconomic data for all Mexican municipalities in the 19 states that have at least one municipality that is majority indigenous.³ Following previous studies that use redistricting to measure electoral outcomes (e.g. Ansolabehere, Snyder, and Stewart 2000; Keele and White 2011; Sekhon and Titiunik 2012), we use the smallest unit of analysis for which we have electoral and socioeconomic data, permitting us to compare sub-district units that are as similar as possible. Each electoral district is composed of multiple municipalities, and redistricting involves municipalities being reassigned from one district to another.⁴ Through Mexico's Federal Electoral Institute, we acquired each municipality's old (pre-2005 redistricting) and new (post-2005 redistricting) district numbers and calculated the percentage of the populations that are indigenous in each municipality's "old" and "new" districts. We also collected municipal-level electoral returns for the 1997, 2003, and 2009 midterm elections of Mexico's lower house, the Chamber of Deputies.⁵ This chamber elects representatives every 3 years, without reelection, from 300 single-member federal districts, split among 31 states plus Mexico City.⁶

From this information, we were able to calculate three dependent variables on the municipal level, our unit of analysis: (1) voter turnout, (2) vote share for the PRI, and (3) vote margin between the two highest vote-getting parties. PRI vote share can be interpreted as measuring the degree of one-party dominance in the municipality, since the PRI is the historically dominant party for all municipalities. We are interested in seeing whether PRI vote share was affected by MCDs, even in cases where the PRI remained the highest vote getter following redistricting.⁷ For instance, if the PRI received the most votes in both 2003 and 2009 in a particular municipality but received a significantly lower vote share in 2009, we would interpret this decline in vote share as reduced one-party dominance in the municipality. In addition, we use the vote margin

³ These include all eleven states with MCDs plus eight states that do not have MCDs. The resulting dataset has 2048 municipalities out of a total of 2457 in Mexico.

⁴ Given that the average population of districts is over 325,000 inhabitants, only highly urban municipalities compose their own districts or are split into multiple districts. None of these urban municipalities have sizable indigenous populations and these are thus excluded from the analysis.

⁵ We chose to analyze midterm elections for two reasons: first, the 2009 midterm election was 4 years after the 2005 redistricting, allowing more time for this treatment to take hold than the 2006 election; second, we expect midterm elections to better reflect the response of voters to their districts' composition than presidential elections, where coattail effects of the presidential race may play a larger role.

⁶ The prohibition of reelection in Mexico lessens the risk that our results are confounded by an incumbency effect of the type described by Hayes and McKee (2009).

⁷ In our main dataset, the PRI received the most votes in 88 % of the municipalities in 2003 and 85 % of the municipalities in 2009. In 2003, the PRI received the second-most votes in all municipalities for which it was not the top vote getter and only failed to receive the first or second-most votes in two municipalities in 2009.

between the top two vote-getting parties in the municipality as our measure of electoral competition.

We merged this electoral data with demographic and socioeconomic data from Mexico's 2005 census, including municipality indigenous population, municipal budgets, population, and several household measures of socioeconomic status. Summary statistics are presented in Appendix A.

We use a variation of the research design developed by Sekhon and Titiunik (2012) and Henderson, Sekhon, and Titiunik (2012) by comparing municipalities that were reassigned to MCDs during redistricting to similar municipalities that were not. We define a treatment municipality as one that was reassigned to a new district that is at least 50 % more indigenous than its old district and whose new district is at least 40 % indigenous. We chose to define treatment in this way, rather than with an absolute threshold for an MCD (such as a district that is at least 40 % indigenous) because we are interested in the effects of a *sizable change* in district composition rather than simply the effect of *being in* a highly indigenous district. Thus municipalities that were already in MCDs prior to redistricting do not constitute treatment units. Control units are municipalities residing in districts that did not experience a 50 % increase in indigenous populations or are in districts that are less than 40 % indigenous after redistricting. Figure 1 provides a graphical representation of treatment assignment. Triangles represent treatment municipalities and circles represent control municipalities.

Redistricting allows us to exploit both over-time variation and cross-sectional variation by comparing electoral outcomes for treatment and control municipalities before and after redistricting. The maps in Fig. 2 indicate example treatment and control municipalities in Chiapas pre- and post-redistricting. The municipality of Chanal constitutes a treatment unit because it was reassigned from an old district that was 13 % indigenous to a new district that is 70 % indigenous. The municipality of Huixtan constitutes a control unit because the composition of its district was unchanged by redistricting.

A comparison of all treatment and control municipalities reveals that redistricting did not constitute random treatment assignment. For instance, treatment municipalities are poorer and supported the dominant party more than control municipalities prior to redistricting. Comparing treatment municipalities to control municipalities without taking these imbalances into account would potentially result in biased estimates of the treatment effect of MCDs. To address this threat to inference, we matched treatment units to control units that were most similar on variables that were potentially endogenous to the redistricting process. To identify these variables, we conducted research on the political biases of redistricting.

The 2005 redistricting reform occurred in response to population shifts since the previous redistricting reform in 1996 that had resulted in dramatic district imbalances (IFE 2005b, p. 11). The Federal Electoral Institute (IFE 2005a) delineated ten technocratic criteria for the composition of new districts; the criterion central to this study is that “the territorial integrity of indigenous communities will be preserved.” This criterion was adopted to comply with the Mexican Constitution’s mandate to “guarantee the validity of indigenous rights and the integral development of their *pueblos* and communities” and that indigenous communities would be concentrated in order to “promote (indigenous) political participation” (IFE 2005a, p. 13). Following

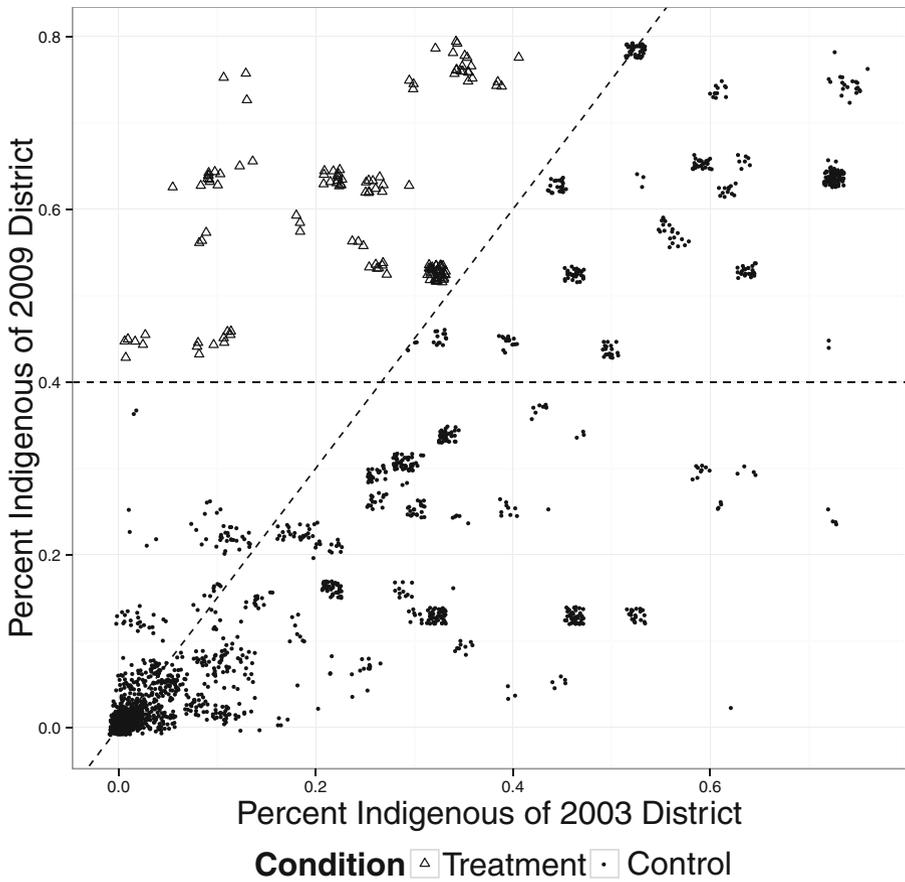


Fig. 1 Treatment Assignment. Full dataset $N=2048$; treatment group $N=135$; control group $N=1914$; 95 % confidence intervals are in parentheses. “Jittering” was used to display each municipality as a distinct point

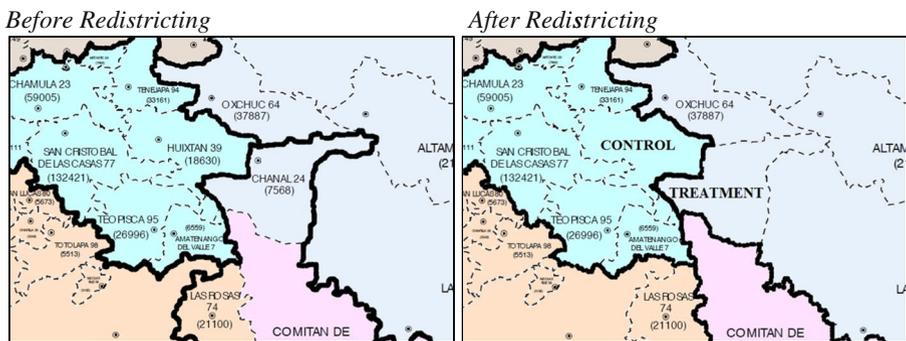


Fig. 2 Example of redistricting in Chiapas. *Bold lines* represent district boundaries, and *dotted lines* represent municipal boundaries

redistricting 28 out of the 300 single-member districts in Mexico were greater than 40 % indigenous, compared with 17 prior to redistricting (IFE 2005b, p. 101; Sonnleitner 2012b, pp. 32–33). MCDs appear in 11 different states and encompass 494 municipalities.

Based on the ten redistricting criteria, the IFE applied a mathematical algorithm to generate a “first redistricting scenario” using demographic data from the 2000 census and submitted this scenario for review to a committee made up of six technical experts and 19 party representatives (IFE 2005b, pp. 11–17). The members of this committee were nominated by congress and included representatives of every major party.⁸ These committee members submitted 200 requests for specific changes to district composition, 70 of which were adopted to derive the final district compositions.⁹

Importantly, the redistricting reform was passed and implemented during the first term for which the PRI did not hold the presidency, having lost to the PAN in 2000. The PRI also did not hold a majority of seats in either congressional chamber, despite retaining its dominance over several subnational regions. Since the PRI and its coalition partner held only five of the 19 seats on the redistricting committee, the PRI was not in position to control redistricting outcomes. It is plausible that the opposition parties—the PAN, PRD, and smaller parties that often run in coalition with the PRD—colluded within the redistricting committee to modify districts in a way that would undermine PRI strongholds.

However, we found no evidence that the PRI resisted the initiative to undertake redistricting in 2005 nor that it opposed the creation of new MCDs. On the contrary, the proposal to increase the number of MCDs had first been presented by the PRI-led federal government in 1996 as part of negotiations with the indigenous Zapatista movement (Sonnleitner 2012b, pp. 13–16). In a context where the PRI was striving to recast itself as a democratic actor and concerned that indigenous groups would ally with the PRD following the Zapatista uprising, perhaps the PRI saw the reform in a favorable light. Since indigenous voters had historically been coopted by the dominant party, it is unlikely that the PRI anticipated *losing* indigenous voting blocks to opposition parties following redistricting.

Alternatively, it is possible that the PRI voluntarily debilitated its immediate electoral prospects by supporting the redistricting reform, in favor of retaining the party’s public image in the face of increasing electoral competition. As scholars have noted, autocratic parties or leaders sometimes permit institutional changes that undermine their own authority if they perceive that short-term losses are compensated by long-term gains in legitimacy or if they receive valuable concessions from potential challengers in return (Grindle 2000; Magaloni 2006; Meng 2015).

Incorporating these insights about the redistricting process, we used Genetic Matching, a non-parametric matching technique, to match each treatment

⁸ Three of these 19 party representatives were appointed by the PRI, and two were appointed by the Partido Verde Ecologista de México (PVEM), a party that often runs in coalition with the PRI. The remaining 14 seats were split among parties that typically oppose the PRI, including three from the PAN, four from the PRD, four from the Partido de Trabajo (PT), and three from Convergencia (IFE 2005b, pp. 136–367).

⁹ Unfortunately, the details of these requests were not made publicly available. However, an analysis of the 2015 redistricting episode reports that all parties suggested modifications to the scenario generated by the automated algorithm and that 111 out of 544 (20 %) were adopted (Trelles, Altman, Magar, and McDonald 2015).

municipality to a control municipality that represents its best possible counterfactual, thus excluding control municipalities that are significantly different from treatment municipalities.¹⁰ The variables we included in the matching algorithm account for three main threats to inference that may have resulted from the redistricting process.¹¹ First, because MCD creation disproportionately targets indigenous municipalities, treatment units are systemically more indigenous, poor, and rural than control units. Therefore, we matched on percent indigenous, logged municipal public spending, percent of households with concrete floors (a proxy for poverty), and population. We also assured that the old districts for the treatment and control municipality in each matched pair had a similar percentage of indigenous people. Second, party representatives in the redistricting committee may have targeted municipalities that were systematically different in their political participation or support for the PRI. To control for these political biases, we matched on PRI vote share and turnout in the 2003 congressional elections. (We did not match on 1997 electoral data to preserve these variables for placebo tests.)

Finally, in order to control for the disruptive nature of redistricting, we matched treatment and control variables on a measure of district turnover. While the prohibition of reelection nullifies incumbent-specific information costs of reassignment, redistricting can disrupt linkages between constituents and local party organizations or patronage networks, thus raising non-incumbent-specific information costs. To account for this potentially confounding effect of MCD creation, we created an additional variable, *percent new neighbors*, calculated as the percentage of the population from a given municipality's new district ("new neighbors") that was *not* in its old district. Hence, municipalities with *higher* values for this variable experienced more disruption in their district compositions than municipalities with lower values. By matching treatment and control units on *percent new neighbors*, we control for the disruptive effects of redistricting, allowing us to isolate the effect of changes in districts' ethnic composition on electoral outcomes.

Genetic Matching produced a matched dataset of 246 municipalities, evenly split between treatment and control units.¹² (See Appendix C for more detail on the matching process and the balance plot reflecting pre- and post-matching balance on covariates.) Because we are most interested in the effect of MCDs on *indigenous* voting behavior, we also analyze a subset of the full matched dataset, which we refer to as the majority indigenous matched dataset. This dataset, which includes 88 municipalities, is composed of all treatment municipalities that are at least 50 % indigenous with their corresponding control municipalities. (See Appendix D for descriptions of each dataset.)

¹⁰ Genetic matching is an evolutionary search algorithm that achieves optimal "balance" on covariates between treatment and control units using observational data. It has been shown to outperform other matching techniques such as propensity-score matching (Sekhon 2011).

¹¹ See Appendix B for a complete list of formal redistricting criteria. Several of these were unlikely to introduce bias and thus not included in the matching algorithm.

¹² These 246 municipalities exclude 12 treatment units that were dropped through the use of a caliper because satisfactory matching control units could not be found. The caliper was implemented to improve balance on municipal percent indigenous, the percentage indigenous of the old district, and percent new neighbors.

Statistical Findings

We find no significant effect of MCDs on turnout and a significant negative effect on dominant-party vote share and vote margins in highly indigenous municipalities. After using Genetic Matching to match treatment municipalities to comparable control municipalities, we conducted difference-of-means tests across matched pairs. These tests yielded significant negative estimates of MCD effects for vote margins across both matched datasets. Further, MCDs had a negative and significant effect on PRI vote share in the majority indigenous matched dataset. MCDs appear to have no effect on turnout in either dataset, but may have depressed *mestizo* turnout. Second, we conducted difference-in-differences (DID) analyses on both matched datasets. The DID produced similar results as the difference-of-means test.

We ran placebo tests for each of these models, testing whether treatment was correlated with voter turnout, PRI vote share, or vote margin in 1997. If matching affords conditional independence of treatment and outcomes, our treatment, which occurred in 2005, should not have any so-called “effect” on 1997 outcomes. Placebo tests on pre-treatment outcome data allow us to check that observed differences between treatment and control units are not attributable to pre-treatment heterogeneity. Results of the placebo tests on turnout, PRI vote share, and vote margin were not significant.

Table 1 presents results from difference-of-means tests using both matched datasets. We find no apparent effect of MCDs on voter turnout. In both datasets, we find a significant negative effect of MCDs on vote margins. The magnitude of this effect is more sizable when analysis is restricted to majority indigenous municipalities. Finally, being reassigned to an MCD appears to have a significant negative effect on the PRI’s vote share in the majority indigenous matched dataset. Taken together, these results provide evidence that reassignment to MCDs increased electoral competition for these highly indigenous municipalities.¹³

The average difference in PRI vote share between matched treatment and control municipalities in the majority indigenous matched dataset is 6.9 percentage points and the difference in vote margins is 8.9 percentage points. The magnitude of the effect is sizable: The average 2009 vote margin in this dataset was 24 percentage points and the margin was less than 8.9 percentage points in 18 % of the municipalities in our sample. These results suggest that opposition parties were significantly more successful at recruiting indigenous voters in municipalities that were reassigned to MCDs. Moreover, the lack of a significant effect of MCDs on turnout indicates that the increased returns for opposition parties are more likely a result of indigenous voters switching away from the PRI rather than turning out to vote in larger numbers.

These findings are robust to different definitions of treatment. Using the same matched dataset, we estimated the effect of two additional versions of treatment: (1) a “magnitude” effect where treatment municipalities are defined as those whose new districts are at least 50 % more indigenous than their old districts; and (2) a “threshold” effect where treatment municipalities are defined as those whose old district was less

¹³ As a robustness check, we tested the effect of MCDs on the effective number of parties, using the Laakso-Taagepera (1979) measure. The estimated effect was positive, but not significant, likely due to the fact that the congressional elections observed continued to be largely two-party races, albeit with narrower vote margins.

Table 1 Difference-of-means estimates

	Outcome: voter turnout		Outcome: PRI vote share		Outcome: vote margin	
	1997 (placebo test)	2009	1997 (placebo test)	2009	1997 (placebo test)	2009
Matched dataset (<i>N</i> =246)	-0.0150 (0.0109)	-0.0050 (0.0103)	-0.0093 (0.0127)	-0.0062 (0.0147)	-0.0119 (0.0214)	-0.0530 (0.0178)**
Majority indigenous matched dataset (<i>N</i> =88)	-0.0171 (0.0191)	0.0162 (0.0161)	-0.0144 (0.0198)	-0.0685 (0.0198)*	-0.0037 (0.0293)	-0.0894 (0.0248)*

Standard errors are in parentheses

* $p < 0.05$; ** $p < 0.01$

than 40 % indigenous and whose new district is greater than 40 % indigenous. Through both of these specifications, the estimated effect of MCDs on turnout remains insignificant and estimates for PRI vote share and vote margin remain negative and significant with similar point estimates. (Results reported in Appendix E.)

We also performed difference-in-differences (DID) tests on the two matched datasets. Our DID estimator compares the difference between pre-treatment and post-treatment outcomes for each treatment unit against the difference between pre-treatment and post-treatment outcomes for each control unit. These results, reported in Table 2, produced similar results as the difference-in-means tests. Using the same binary treatment variable as the difference-in-means analysis, we continue to find no significant effect of MCDs on turnout, a negative effect on vote share in both datasets, and a negative effect on PRI vote share in the majority indigenous matched dataset. The DID model on the majority indigenous matched dataset produced significant negative estimates of 5.9 % for PRI vote share and 8.3 % for turnout. The magnitudes of these estimated effects are similar to the difference-of-means estimates. We also ran placebo tests for the DID models, which produced no significant effect of treatment on the difference between 1997 and 2003 outcomes. As a robustness check, we reran all DID tests using a continuous measure of treatment—the change in the percentage indigenous of a municipality's district—as the independent variable. These tests also yielded negative estimates for PRI vote share and vote margin and no significant estimate for turnout.

Our analysis shows that being reassigned to an MCD lowered PRI vote share and increased electoral competition in an election that took place 3 years after the redistricting reform. We acknowledge that this particular effect of MCDs may have attenuated over time, as the PRI eventually made appeals to indigenous voters that were competitive with opposition-party appeals. Even if this occurred, however, we would argue that the short-term effects of MCDs had long-term implications for electoral competition by opening space for opposition parties to penetrate long-time PRI strongholds and be competitive in future elections.

In sum, our findings consistently show that MCDs in Mexico did not have an effect on minority electoral participation but did increase electoral competition in the election following redistricting. Being reassigned to an MCD did not appear to bring more

Table 2 Difference-in-differences estimates

	Outcome: voter turnout		Outcome: PRI vote share		Outcome: vote margin	
	1997–2003 (placebo test)	2003–2009	1997–2003 (placebo test)	2003–2009	1997–2003 (placebo test)	2003–2009
Full matched dataset ($N=246$)						
Main treatment	0.0204 (0.0112)	-0.0105 (0.0110)	0.0010 (0.0149)	-0.0021 (0.0160)	0.0007 (0.0230)	-0.0419 (0.0214)
Continuous treatment	0.0135 (0.0517)	-0.0116 (0.0226)	-0.0168 (0.0305)	-0.0254 (0.0328)	-0.0092 (0.0472)	-0.0883 (0.0439)*
Majority indigenous matched dataset ($N=88$)						
Main treatment	0.0194 (0.0213)	-0.0139 (0.0181)	0.0053 (0.0283)	-0.0594 (0.0269)*	-0.0029 (0.0408)	-0.0827 (0.0359)*
Continuous treatment	0.0314 (0.0471)	-0.0553 (0.0394)	0.0058 (0.0623)	-0.1771 (0.0577)**	-0.0156 (0.0897)	-0.1599 (0.0796)*

Standard errors are in parentheses

* $p < 0.05$; ** $p < 0.01$

minority voters to the polls and perhaps demobilized majority-group voters. These findings dispute the purported motive of MCD creation, increasing minority participation. Furthermore, we consistently find a significant negative effect of MCDs on PRI vote share in highly indigenous municipalities; indigenous voters reassigned to MCDs voted less for the former dominant party than other indigenous voters. This finding is bolstered by the negative effect of MCDs on vote margins; elections became more closely contested as a result of MCDs. The main takeaway from our empirical analysis is that the creation of MCDs had an effect on *for whom* indigenous voters voted, rather than *whether* they turned out to vote.

Ecological Inference

Given that municipalities are composed of both indigenous and *mestizo* voters, we must verify that observed differences in outcomes between treatment and control municipalities were in fact due to changes in indigenous voting rather than changes in *mestizo* voting. We estimated the values of turnout and PRI vote share for indigenous and *mestizo* populations in all 2048 municipalities using Ecological Inference (EI) software that implements hierarchical modeling with bootstrapping for standard errors (Alimadhi, Bhaskar, Lau, and Wittenberg 2007).

Table 3 reports estimates of voter turnout and PRI vote share among indigenous and the full dataset, treatment municipalities, and control municipalities. In 2009, an estimated 41 % of the indigenous population reassigned to MCDs voted for the PRI, while 49 % of the indigenous population in control units voted for the PRI. EI estimates also report that in 2003, 48 % of indigenous voters in the treatment group voted for the PRI, compared with 49 % of indigenous voters in the control group. This supports our argument that indigenous voters newly reassigned to MCDs voted less for the PRI (48 % in 2003 versus 41 % in 2009), while support for the PRI among indigenous

Table 3 Ecological-inference estimates

	All districts (%)	Treatment group (%)	Control group (%)
2009 outcomes			
Voter turnout			
Indigenous	47 (46, 49)	47 (42, 52)	48 (46, 49)
Non-indigenous	47 (46, 47)	39 (36, 41)	47 (46, 48)
PRI vote share			
Indigenous	49 (47, 50)	41 (37, 46)	49 (48, 51)
Non-indigenous	42 (41, 43)	48 (45, 51)	42 (41, 42)
2003 outcomes			
Voter turnout			
Indigenous	44 (43, 45)	43 (39, 47)	44 (43, 46)
Non-indigenous	42 (41, 43)	39 (36, 42)	42 (42, 43)
PRI vote share			
Indigenous	49 (47, 50)	48 (43, 53)	49 (48, 51)
Non-indigenous	46 (46, 47)	50 (46, 54)	46 (45, 47)

Full dataset $N=2048$; treatment group $N=135$; control group $N=1914$; 95 % confidence intervals are enclosed in parentheses

voters who were not reassigned to MCDs was unchanged (49 % in both years).¹⁴ EI estimates of indigenous turnout increased by roughly the same amount from 2003 to 2009 in treatment and control municipalities, supporting our finding that there was no significant effect of MCDs on indigenous voter turnout.¹⁵ Notably, estimates for indigenous and non-indigenous turnout in the pre-treatment (2003) full sample are quite similar and, if anything, indigenous voters appear to have turned out in larger numbers than *mestizo* voters, suggesting that minority electoral participation had not been suppressed in the pre-reform context.

Opposition-Party Mobilization: Evidence of the Mechanism from Chiapas

Here, we analyze field research findings and secondary sources from the state of Chiapas to illustrate that the mechanism explaining increased electoral competition in MCDs was the opposition party's adoption of an electoral strategy designed to draw indigenous voters from the PRI. Prior to the appearance of the PRD in this state, indigenous communities had turned out in large numbers for the PRI, owing to the dominant party's patronage appeals and top-down control, but were not afforded spaces for self-government, either within or outside the party (Fox 1996; Sonnleitner 2012a). In the years immediately prior to the adoption of MCDs, the Chiapas PRD forged

¹⁴ We also observe greater vote shares for the PRI and lower turnout for *mestizo* voters reassigned to MCDs than *mestizo* voters in control municipalities, suggesting that this treatment demobilized this group and caused it to support opposition parties less.

¹⁵ We also implemented an original field-research based EI technique, described in greater detail in Meng and Palmer-Rubin (2012).

alliances with leaders of indigenous organizations, offering these organizations candidacies and patronage rewards. Because its structure in Chiapas was weighted toward indigenous communities, the PRD was poised to be more competitive in the newly created MCDs. PRI leaders were unable to offer the same level of inducements due to their long-standing commitments to *mestizo* elites. Our findings—an increase in electoral competition accompanied by no change in indigenous turnout—are explained by the fact that the PRD mobilized indigenous voters by wooing local leaders who had previously been aligned with the PRI.

The left-wing PRD emerged on the electoral scene in Chiapas with the successful gubernatorial campaign of Pablo Salazar Mendiguchía in 2000. With Salazar's backing, the state PRD operation embarked on a strategy to attract indigenous support by nominating local indigenous leaders for elected office and government posts and augmenting investments in indigenous communities. The PRD penetrated these communities by forming alliances with leaders of indigenous associations, who often wield substantial power in their communities as brokers in patronage networks and king-makers in local elections. These organizations—such as ARIC, CIOAC, and UNORCA—originated in land invasions in the 1970s and were reinvigorated during the 1994 Zapatista movement.¹⁶ Many of these leaders, who had previously supported the PRI given the lack of a viable alternative, were eager to join forces with an opposition party that was electorally competitive and tolerant of their autonomous organizational structures. Deviating to the PRD was most desirable for indigenous organizations in MCDs, where indigenous leaders were relatively certain that this party could topple the PRI if it garnered widespread support among indigenous voters.

These alliances also offered economic incentives for indigenous communities. The organizations became channels through which the PRD provided patronage benefits, including agricultural subsidies, social programs, and infrastructure investments, which often exceeded the inducements that these communities had received from PRI administrations. For example, an interviewed leader of CIOAC in the municipality of Comitán explained that he was drawn to the PRD because the Salazar administration channeled dozens of housing subsidies to its members, a benefit that had not been afforded under the PRI (Antonio Hernández Cruz, personal communication, 5 July 2012). The PRD also granted nominations for elected office and government posts to indigenous leaders. One of the main attractions of aligning with the PRD was the guarantee of a nomination for mayor. Controlling municipal government availed indigenous organizations of patronage resources, such as job posts and discretionary infrastructure spending. Through these alliances, a number of indigenous organization leaders also ran for state and federal congressional posts and occupied positions in the state government and in the PRD's state-level organization.¹⁷

¹⁶ The organization that spearheaded the Zapatista rebellion, the Ejército Zapatista de Liberación Nacional (National Zapatista Liberation Army) withheld from forming party alliances.

¹⁷ Analysis by Sonnleitner (2012b, pp. 91–115) shows that indigenous nominations to the federal Chamber of Deputies increased significantly following the redistricting. In the two federal elections prior to redistricting, four indigenous candidates were elected to this chamber in 2000 and seven were elected in 2003. Following redistricting, 18 were elected in 2006 and 16 were elected in 2009. However, our own analysis did not find that indigenous nominees were more common in newly formed MCDs than in previous MCDs. This accords with qualitative findings; indigenous organization and party representatives reported that nominations of local authorities to municipal office was a much more common inducement offered to indigenous groups than legislative nominations.

During congressional elections, PRD-affiliated indigenous organizations led campaigns on behalf of PRD candidates, indigenous or *mestizo*. In some municipalities, the organizations assumed leadership of the party. For example, in the municipality of Chilón, which is 96 % indigenous, the PRD broke the PRI's electoral monopoly by allying with an indigenous organization called Yomlej and granting it power over the candidate nomination process (Burguete 2007; Palmer-Rubin 2011). The PRI in Chilón, on the other hand, was dominated by *mestizos* in the PRI-affiliated peasant and ranchers' associations and thus was resistant to incorporating indigenous leaders into the party (Bobrow-Strain 2007). Referring to another highly indigenous municipality in Chiapas, an indigenous leader explained: "In the case of Las Margaritas, the PRD's main force is the CIOAC. When people think of the PRD, they think of the CIOAC" (Margarito Ruíz Hernández, personal communication, 4 July 2012). Leaders described these arrangements as providing an opportunity for indigenous communities to exercise "autonomous self-government" and they returned the favor by organizing local campaigns for PRD candidates at other levels of government. As a result, districts with large indigenous populations offered the PRD its best opportunity to beat the PRI. For example, Chiapas' second district became a PRI-PRD battleground after the 2005 redistricting caused the district's indigenous population to increase from 14 to 76 %. After having lost the 2003 congressional election in this district by a 16-percentage point margin, the PRD edged out all other parties in 2009.

Given the increased salience of the indigenous vote, why wasn't the PRI able to augment its appeals to indigenous voters to counteract the PRD's strategy? Despite the PRI's impressive patronage network in indigenous communities, the once-dominant party's organization in the Chiapas countryside, as elsewhere in Mexico, is entrenched in the National Peasant Confederation (CNC), a *mestizo*-dominated peasant confederation dating back to the 1930s. The PRI was unable to offer the same level of inducements to indigenous leaders as the PRD because it was wedded to *mestizo* elites. For example, one indigenous member of the PRI's municipal council in San Juan Chamula, regarded as a PRI bastion, said that even though the municipality is close to 100 % indigenous, the PRI's state operation has resisted granting leadership posts or candidacies to indigenous leaders: "After the [1994] resurrection, we realized that the PRI government had abandoned indigenous *pueblos*. It did not give us the opportunity to be leaders or candidates, be it at the federal, state, or municipal level. We have been asking for our fair share, which the party statutes provide for. But we have had to fight for it" (Gilberto Velasco Rodríguez, personal communication, 9 July 2012). This embattled operative also affirmed that indigenous communities were disfavored in the distribution of party-mediated resources because PRI elites allocate a large share of distributive programs to the *mestizo*-dominated CNC: "Indigenous *pueblos* participate very little in the CNC, because there are other interests there. Very strong interests of farmers and ranchers that disguise themselves as peasants, when in reality all of the resources that go to the CNC are for certain groups in power, but very little actually ends up going to projects for indigenous communities."

To conclude, the 2005 redistricting took place in a context where the PRD in Chiapas was gaining ground among indigenous communities by forging alliances with local indigenous leaders, many of whom had previously been embedded in the PRI's

patronage network. This strategy was more successful in MCDs than elsewhere because these districts encompassed newly influential indigenous voting blocs, which were amenable to opposition-party appeals and saw that the PRD stood a strong chance of winning if it commanded the support of key indigenous leaders. The defection of these leaders to the PRD explains why the creation of MCDs led to a decrease in support for the PRI. The fact that this new electoral base previously supported the PRI, rather than abstaining from electoral politics altogether, explains why MCDs had no discernable effect on indigenous turnout.

Conclusions

This paper aimed to make two contributions to the study of minority-promoting electoral institutions in new democracies. First, we sought to extend the analysis of MCDs outside the USA context, testing whether these institutions had the intended effect of bolstering minority electoral participation in Mexico. Using an original dataset and a matching design that helps alleviate causal inference problems inherent to observational studies, we find no effect of MCDs on minority voter turnout. Second, we analyzed the impact of MCDs on electoral competition and one-party dominance during a period in which Mexico was still emerging from the shackles of dominant-party rule.

We argued that MCDs promoted electoral competition by creating newly influential minority voting blocs, which opposition parties were able to mobilize to penetrate dominant-party strongholds. Fieldwork-based findings from the highly indigenous state of Chiapas provided evidence of this mechanism. The PRD capitalized on MCD creation to build local party organizations around indigenous organizations by nominating their leaders to elected office and offering economic inducements. Prior to the appearance of the PRD in Chiapas, indigenous voters had largely supported the PRI, despite being politically marginalized. Restricted by ties to *mestizo* constituencies, the PRI was unable to match the benefits that the PRD offered to indigenous communities.

We estimated the effects of MCDs using an identification strategy that exploited variation induced by Mexico's 2005 redistricting reform. We found evidence that MCDs led to narrower vote margins and lower vote shares for the dominant party in highly indigenous municipalities, yet no indication that they bolstered indigenous turnout. In contrast with most extant research on the effect of minority-promoting electoral institutions, we conclude that MCDs influenced *for whom* indigenous voters were voting, not *whether* they turned out to vote.

These findings have important implications for minority representation in Mexico. Since MCDs did not affect indigenous turnout, it appears that they did not "empower" minority groups in the way that the literature on majority-minority districts in the USA posits. Nonetheless, indigenous voters in Mexico benefited from the reform in a different way. MCDs created incentives for opposition parties to offer greater inducements to indigenous communities than they had received under the dominant party. On the other hand, it appears unlikely that this reform substantially improved indigenous representation on a national scale, as the most common inducements were mayoral nominations and patronage benefits. Further research on MCDs in Mexico should assess whether these districts led to more indigenous candidates being elected to

congress (“descriptive” representation) or more legislative attention given to indigenous interests (“substantive” representation), outcomes that we were unable to observe given data limitations.

It is not entirely clear why the PRI did not or was unable to resist the creation of new MCDs. It is possible that the PRI did not anticipate losing indigenous voting blocs to opposition parties or that concerns about maintaining the party’s legitimacy in an increasingly democratic environment prevented it from protesting the creation of these districts. Future studies on this topic can help clarify the partisan strategies that shape redistricting outcomes in transitional democracies and contribute to our understanding of endogenous institutional change in countries undergoing democratic consolidation.

Our study also contributes to the comparative politics literature more broadly. First, we have shown that it is essential to understand pre-existing alignments between ethnic minorities and political parties to be able to evaluate the causal effect of MCDs on minority electoral participation. MCDs did not cause greater indigenous turnout in Mexico because indigenous voters were already voting for the dominant party, albeit without enjoying much clout in the party. Compared with other Latin American countries with significant indigenous populations—such as Bolivia, Ecuador, Guatemala, or Peru—Mexico is unique in the degree to which these populations were mobilized electorally by a political party that pre-dated late-20th century indigenous movements. Thus, we would expect that the creation of MCDs in these other countries would be more likely to generate an empowerment effect of increasing minority turnout as found in the USA.

Second, this paper makes a case that MCDs can contribute to the decline of one-party dominance, one of the most trenchant obstacles to democratic consolidation. We provide evidence that the creation of institutions that concentrate minority groups into sizable voting blocs can open a window of opportunity for opposition parties to build new constituencies. Party switching among minority voters in new democracies is a surprising consequence of MCDs that has not been explored in the literature, likely due to the fact that theories regarding MCDs are based on the contemporary USA, where most minorities are loyal to the Democratic Party. Our findings show that MCD creation improved the prospects of opposition parties in Mexico, a country with a history of one-party dominance and top-down incorporation of ethnic minorities.

Thus, we expect that the effect of MCDs on electoral competition, at least through the mechanism that we identify, is generalizable to former dominant-party regimes. In addition to Mexico, the mobilization of marginalized minorities by opposition parties has been shown to introduce electoral competition in the former Democrat-controlled US South and in India, which was dominated by the Congress Party. Conversely, other highly indigenous countries in Latin America passed through military dictatorships that excluded or violently repressed the indigenous rather than one-party dominant regimes that incorporated them into patronage networks. We expect that the type of party systems that emerged in these countries after their transitions to democracy and the ability of parties to incorporate indigenous voters would modify the effect of MCDs. Future research may investigate how minority-promoting institutions affect electoral competition in newly democratic countries without a history of one-party dominance.

Acknowledgments The authors thank Leonardo Arriola, Svitlana Chernykh, Ruth Berins Collier, David Collier, Danny Hidalgo, María Inclán, Robert Powell, Jasjeet Sekhon, Laura Stoker, Leonard Wantchekon, Jason Wittenberg, three anonymous reviewers, and members of the SCID Editorial collective for suggestions and comments. We also thank seminar participants in U.C. Berkeley's Comparative Politics Colloquium and Statistics of Causal Inference Seminar, and the Empirical Implications of Theoretical Models Summer Institute for helpful comments, as well as Jonathan Fox and Willibald Sonnleitner for sharing data. An earlier version of this paper was presented at the annual meeting of the 2012 Midwest Political Science Association. We acknowledge Mexico's *Instituto Nacional de Estadística y Geografía* and *Instituto Federal Electoral* for providing census and electoral data.

References

- Alimadhi F, Bhaskar BN, Lau O, Wittenberg J. ei.RxC: Hierarchical multinomial-dirichlet ecological inference model for R x C tables; 2007.
- Ansolabehere S, Snyder JM, Stewart C. Old voters, new voters, and the personal vote: using redistricting to measure the incumbency advantage. *Am J Polit Sci.* 2000;44(1):17–34.
- Barreto M. Si se puede! Latino candidates and the mobilization of Latino voters. *Am Polit Sci Rev.* 2007;101(3):425–41.
- Barreto M, Villarreal M, Woods N. Metropolitan Latino political behavior: voter turnout and candidate preference in Los Angeles. *J Urban Aff.* 2005;27(1):71–91.
- Benton A. Bottom-up challenges to national democracy: Mexico's (legal) subnational authoritarian enclaves. *Comp Polit.* 2012;44(3):253–71.
- Bimir JK. Divergence in diversity? The dissimilar effects of cleavages on electoral politics in new democracies. *Am J Polit Sci.* 2007;51(3):602–19.
- Bobo L, Gilliam Jr FD. Race, sociopolitical participation, and black empowerment. *Am Polit Sci Rev.* 1990;84(2):377–93.
- Bobrow-Strain A. *Intimate enemies: landowners, power, and violence in Chiapas.* Durham: Duke University Press; 2007.
- Burguete Cal y Mayor A. Etnopolítica electoral: micro regiones y representación territorializada en municipios pluriétnicos en Chiapas. Paper presented at the conference Coloquio Incursiones indígenas en los escenarios electorales en América Latina, Mexico City; 2007.
- Brace K, Grofman B, Handley L. Does redistricting aimed to help blacks necessarily help Republicans? *J Polit.* 1987;49(1):169–85.
- Cameron C, Epstein D, O'Halloran S. Do majority-minority districts maximize substantive black representation in congress? *Am Polit Sci Rev.* 1996;90(4):794–812.
- Chandra K. *Why ethnic parties succeed: patronage and ethnic head counts in India.* New York: Cambridge University Press; 2004.
- Chhibber P. *Democracy without associations: transformation of the party system and social cleavages in India.* Ann Arbor: University of Michigan Press; 1999.
- Cleary M. Indigenous autonomy and insulation from electoral competition in Oaxaca, Mexico. Paper presented at the conference on Native Peoples in Mexico and the U.S.: approaches to exclusion, San Diego, CA; 2009.
- Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL). 2010. Análisis y medición de la pobreza: anexo estadístico-pobreza 2010. Retrieved from: <<http://www.coneval.gob.mx/Medicion/Paginas/Medici%C3%B3n/Anexo-Estadistico-Pobreza-2010.aspx>>.
- Diaz-Cayeros A, Magaloni B, Weingast BR. *Tragic brilliance: equilibrium hegemony and democratization in Mexico.* Working Paper, Hoover Institution, Stanford University; 2003.
- Eisenstadt T. Usos y costumbres and postelectoral conflicts in Oaxaca, Mexico, 1995–2004: an empirical and normative assessment. *Lat Am Res Rev.* 2007;42(1):52–77.
- Fox J. How does civil society thicken? The political construction of social capital in rural Mexico. *World Dev.* 1996;24(6):1089–103.
- Gay C. The effect of black congressional representation on political participation. *Public Policy Inst Calif.* 2001;95(3):589–602.
- Gibson E. *Boundary control: subnational authoritarianism in federal democracies.* Cambridge: Cambridge University Press; 2012.
- Giraudy A. The politics of subnational undemocratic regime reproduction in Argentina and Mexico. *J Polit Lat Am.* 2010;2(2):54–84.

- Goodnow R, Moser R. Layers of ethnicity: the effects of ethnic federalism, majority-minority districts, and minority concentration on the electoral success of ethnic minorities in Russia. *Comp Polit Stud.* 2012;45(2):167–93.
- Grindle M. *Audacious reforms: institutional invention and democracy in Latin America.* Baltimore: Johns Hopkins University Press; 2000.
- Harvey N. *The Chiapas rebellion: the struggle for land and democracy.* Durham: Duke University Press; 1998.
- Hayes D, McKee SC. The participatory effects of redistricting. *Am J Polit Sci.* 2009;53(4):1006–23.
- Hayes D, McKee SC. The intersection of redistricting, race, and participation. *Am J Polit Sci.* 2012;56(1):115–30.
- Henderson J, Sekhon J, Titiunik R. Cause or effect? Turnout in hispanic majority-minority districts. Working Paper; 2012.
- Hill KA. Does the creation of majority black districts aid Republicans? An analysis of the 1992 congressional elections in eight southern states. *J Polit.* 1995;57(2):384–401.
- Instituto Federal Electoral (IFE). Acuerdo del Consejo General del Instituto Federal Electoral por el que se establece la demarcación territorial de los trescientos distritos electorales federales uninominales en que se divide el país para su utilización en los procesos electorales federales 2005–2006 y 2008–2009, Agreement CG28/2005; 2005a.
- Instituto Federal Electoral (IFE). *Distritación 2004–2005: camino para la democracia;* 2005b.
- Jensenius F. Power, performance, and bias: evaluating the electoral quotas for scheduled castes in India. (Doctoral dissertation). University of California, Berkeley; 2013.
- Keele L, White I. African American turnout in majority-minority districts. Paper presented at the Annual Meeting of the American Political Science Association, Seattle, WA; 2011.
- Laakso M, Taagepera R. ‘Effective’ number of parties: a measure with application to West Europe. *Comp Polit Stud.* 1979;12(1):3–27.
- Magaloni B. *Voting for autocracy: hegemonic party survival and its demise in Mexico.* Cambridge: Cambridge University Press; 2006.
- McMillan A. *Standing at the margins: representation and electoral reservation in India.* New Delhi: Oxford University Press; 2005.
- Meng A. Ruling parties in authoritarian regimes: a theory of endogenous institutional change. Paper presented at the Annual Meeting of the American Political Science Association, San Francisco, CA; 2015.
- Mickey R. The beginning of the end for authoritarian rule in America: Smith v. Allwright and the abolition of the white primary in the Deep South, 1944–1948. *Stud Am Polit Dev.* 2008;22(2):143–82.
- Meng A, Palmer-Rubin B. A case for case studies: a multi-method strategy for ecological inference. *Qualitative and Multi-Method Research.* 2012;10(2):21–26.
- Palmer-Rubin B. From frame to campaign: indigeneity in the political arena. Paper presented at the Annual Meeting of the American Political Science Association, Seattle, WA; 2011.
- Posner D. *Institutions and ethnic politics in Africa.* New York: Cambridge University Press; 2005.
- Rus J. The “comunidad revolucionaria institucional:” the subversion of native government in highland Chiapas. In: Joseph G, Nugent D, editors. *Everyday forms of state formation: revolution and the negotiation of rule in modern Mexico.* Durham: Duke University Press; 1994. p. 265–300.
- Sekhon J. Multivariate and propensity score matching software with automated balance optimization: the matching package for R. *J Stat Softw.* 2011;42(7):1–52.
- Sekhon J, Titiunik R. When natural experiments are neither natural nor experiments. *Am Polit Sci Rev.* 2012;106(1):35–57.
- Sonnleitner W. *Elecciones chiapanecas: Del régimen posrevolucionario al desorden democrático.* Mexico City: El Colegio de México; 2012a.
- Sonnleitner W. *La representación legislativa de los indígenas en México: De la representatividad descriptiva, a una representación de mejor calidad;* 2012b.
- Tate K. Black political participation in the 1984 and 1988 presidential elections. *Am Polit Sci Rev.* 1991;85(4):1159–76.
- Trejo G. Religious competition and ethnic mobilization in Latin America: why the Catholic church promotes indigenous movements in Mexico. *Am Polit Sci Rev.* 2009;103(3):323–42.
- Trelles A, Altman M, Magar E, McDonald MP. Transparency, automated redistricting, and partisan strategic interaction: the case of Mexico. Paper presented at the Electoral Integrity Project Workshop, San Francisco, CA; 2015.
- United Nations Development Program (UNDP). *Informe sobre desarrollo humano de los pueblos indígenas en México: El reto de la desigualdad de oportunidades;* 2010.
- Valelly R. *The two reconstructions: the struggle for black enfranchisement.* Chicago: University of Chicago Press; 2004.

Voss S, Lublin D. Black incumbents, white districts: an appraisal of the 1996 congressional elections. *Am Polit Res.* 2001;29(2):141–82.

Anne Meng is a Ph.D. candidate in the Department of Political Science at the University of California, Berkeley. Her research focuses on political parties and authoritarian regimes, with particular interests in party building and institutional change.

Brian Palmer-Rubin is a Democracy Postdoctoral Fellow at the Ash Center for Democratic Governance and Innovation of the Harvard Kennedy School. He studies interest representation and the political economy of development, centrally in Latin America. He has published work in *Comparative Political Studies*, *Gestión and Política Pública* and in the edited volume *Mexico's Evolving Democracy: A Comparative Study of the 2012 Elections*.