

The Role of Labor Unions as Political Machines: Evidence from the Case of the Mexican Teachers' Union *

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Abstract

In this paper we analyze the electoral role of the Mexican teacher's union as a political machine. To study its effect on electoral outcomes, we exploit variation across time in its political alliances, whether polling stations are located in schools –which facilitates the machine's operation– and its strength across Mexican states. Our findings suggest that the candidates supported by the machine of the teacher's union experience a significant increase in their vote share when a polling station is located in a school. However, such an effect is only present in the areas where the leadership of the teacher's union exerts influence over its affiliates. We also show evidence that is consistent with the fact that SNTE uses electoral results at a low level of aggregation to monitor school directors and teachers.

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Key words: electoral fraud, labor union, political machine.

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1 Introduction

In most contemporary societies labor unions constitute powerful organizations. Traditionally, unions engage in collective action to pursue the narrow interests of their members. However, they are often politically captured to operate as political machines, and consequently, have a broader effect on the political system. While the potential impact of the capture of labor unions can be significant, there is relatively little research studying their electoral role.

In this paper we analyze the electoral role of the Mexican National Educational Workers Union (SNTE) –the largest union in Latin America– as a political machine.¹ The SNTE is widely known for engaging in systematic voter mobilization to support the various parties and candidates with whom it forges political alliances over time. To study the effect of the SNTE on electoral outcomes, we exploit variation across time in the political alliances of the SNTE, the location of polling stations, which affects how intensively the machine of the SNTE can operate, and the strength of the SNTE across Mexican states.

Labor unions have unique characteristics that allow them to influence labor issues that affect the wellbeing of their members, such as higher wages, better working conditions, etc. To begin with, unions enjoy a high level of *de facto* political power due to their ability to impose large externalities on society, for example through strikes or demonstrations (see Acemoglu et al. (2005)). Such power enables unions to push for or block legislation or policies that affect the interest of their members. Additionally, the large number of members and high levels of discipline within their organizations allow unions to deliver the votes of their members to specific parties or candidates in exchange for policy concessions.

However, the use of the political power of unions has not often been restricted to influence issues that benefit their members. Their large number of members, organizational capacity and extended presence make unions natural targets for political capture. Due to their ubiquitous presence, labor unions provide a natural structure for voter mobilization. As a result, unions have often been used as political machines where their members act as political brokers who deliver votes through their mobilization and influence on voters. Common examples are the Argentinean and Mexican labor unions, which were traditionally at the service of the Peronist party and the Institutional Revolutionary Party (PRI), respectively (Levitsky, 2001a, 2003a).

To understand the role of labor unions as political machines, we study Mexico’s largest teachers’ union, the SNTE. There is widespread anecdotal evidence that the SNTE operates as a political machine. Figures from the popular press suggest that the SNTE’s leadership controls more than 320,000 teachers over whom it exerts pressure to mobilize voters to support

¹More than 1.4 million teachers are affiliated to the SNTE (Hernández, 2013).

the candidates it is aligned to (Solano, 2009). The SNTE has forged different alliances with various parties to support different candidates over time. These alliances followed the political trajectory of the until recently SNTE's main leader, Elba Esther Gordillo. Gordillo made the headlines in March of 2013 when she was imprisoned on alleged corruption and graft charges, which led her to step down from the SNTE's leadership..

To estimate the electoral effect of the SNTE's political machine, we exploit three sources of variation. First, we use variation over time on the alliances between SNTE and different parties for specific offices. While SNTE has historically supported the PRI, it recently created its own party –the New Alliance Party (PANAL)– and forged electoral alliances with other parties for the presidential races, where the PANAL stood no chance of success. Second, we exploit variation in the strength of SNTE across different states. In a subset of states teachers are under the umbrella of competing organizations. Finally, we use variation in the location of polling stations, in particular, whether polling stations are located in schools. As we document below, teachers are particularly likely to exert influence over voters whenever polling stations are located in schools through their more direct interaction with parents and their role as party representatives or election officials.

Our findings suggest that the candidates supported by the SNTE's machine experience a 2 pp increase in their vote share when a polling station is located in a school. These results are robust to the inclusion of state, municipality or precinct fixed effects and to the inclusion of state-specific time controls. Additionally, we can rule out alternative explanations associated to the differential electoral behavior of more educated voters since our results remain qualitatively similar when we control for the presence of different types of schools in the precincts where voters are organized.

Importantly, we find no effect of the SNTE's machine in the states where the SNTE does not exert influence over teachers. This is reassuring and suggests that our estimates indeed capture the role of SNTE as a political machine and the way in which its members are compelled to mobilize voters for the parties and candidates supported by the SNTE. Additionally, we exploit plausible exogenous variation in polling station size to show that our estimates are driven by polling stations with fewer voters. This evidence is consistent with the fact that SNTE uses electoral results at a low level of aggregation to monitor school directors and teachers.

Our findings shed light on a wide range of issues. First, they highlight the potential role of labor unions as political machines and of union members as political brokers. This is of particular importance for public sector unions whose members interact with citizens on a regular basis, and are often responsible for the allocation of public funds and the delivery of essential public goods such as health, education and security among others. Thus, understanding the

electoral role of public unions becomes fundamental for the understanding of clientelism in many developed and developing countries. Our findings also stress the importance of the location of polling stations and the way in which such location can exacerbate clientelism. In fact, in many democracies it is common for polling stations to be located in schools and for teachers to play the role of election officials. Whenever teachers are part of a political machine that can mobilize and sway voters in favor of a given candidate, locating polling station in schools may facilitate the role of teachers as political brokers and undermine the quality of democracy.

The remainder of the paper proceeds as follows. In section 2 we review the related literature. In section 3 we provide background information on the historical origins of SNTE and of its role as a political machine. In section 4 we present the empirical approach and the data. In section 5 we show our main results, and present robustness check of our analysis. In section 6 we provide some evidence on the channels which the SNTE's political machine operates through. Section 7 concludes.

2 Literature Review

This paper is related to various strands of the literature. To begin with, our paper is related to the literature on clientelism that studies how political machines and political brokers mobilize and compel voters through coercion or targeted benefits (see for example Chandra (2004), Stokes (2005), Nichter (2008), Larreguy (2013)).² However, most of the literature is very qualitative or explores competing mechanisms in a theoretical framework. We instead focus on assessing the empirical electoral relevance of political machines.

Our paper is clearly related to the scarce literature on the political role of labor unions. This literature has mostly focused on the United States and other developed democracies. At the macro or aggregate level, Radcliff and Davis (2000) finds that the fraction of workers represented by unions is positively correlated with turnout in a sample of 19 Western democracies. For the case of the United States, Feigenbaum (2013) finds evidence of a positive effect of the presence of unions on the Democratic party vote share. At a more micro level, Delaney et al. (1990), Chang (2001) and Leighley and Nagler (2007), provide evidence that union members are more likely to vote, and to vote for the Democratic and union-endorsed candidates than non-members.³ Freeman (2003) provides evidence that some of these effects are due to socioeconomic factors that differentiate union members from others.

²Hicken (2011), Kitschelt and Wilkinson (2007) and Schaffer (2007) provide a broad overview of clientelistic practices in developing countries.

³Juravich and Shergold (1988) provides an overview of the role of organized labor in the United States in mobilizing voters for candidates from the Democratic party and in making campaign contributions.

Another strand of the literature, such as Goldfield (1989) and Radcliff and Saiz (1998), provide evidence on the pressure of organized labor towards the adoption of pro-union policies and legislation. More recently, Frymer (2010) and Jacobs and Skocpol (2005) explore the extent to which the declining power of labor unions in the economic arena may explain increasing inequality in the political arena in the United States. In this line, Leighley and Nagler (2007) find that the decline in union membership in the United States has affected turnout of low and middle-income citizens and has increased the class-bias of elections.

Our paper differentiates from this literature in various ways. Most of these papers focus on the effect of unions on the voting behavior of union members than on the role of unions as broader political machines that mobilize other (non-unionized) sectors in society. In addition, for the United States case, the literature focuses on links between unions and one party –the Democratic party– with a very specific pro-union platform. As such, these papers speak more to the literature on special interest politics than to the literature on clientelism. Our paper explores the changing alliances between the teachers union and various parties, which is consistent with their role as a political machine, rather than as natural economic or ideological ally of one specific party. Similarly, we do not limit our analysis to voting behavior of union members but try to estimate the overall effect on vote shares for parties de facto allied with the union for a given office.

For the case of Latin America, Levitsky and Mainwaring (2006) highlight that the rise of the unions in the 1950's and 1960's brought critical electoral and mobilizational support for labor-based parties in countries like Argentina and Mexico. Moreover, unions often established institutionalized alliances and many union leaders came to value the party for its own sake. This is consistent with the strong link between SNTE and the PRI prior to 2005. Levitsky (2001b) and Levitsky (2003b) highlight how the structural transformation of the economy in the late 1980's and 1990's lead to a decline of mass production that weakened labor unions and their capacity to deliver votes. This led many parties to replace labor unions with regional-based clientelistic machines as a tool for voter mobilization.⁴ Despite ample anecdotal and qualitative evidence, to our knowledge no one has estimated in a systematic way the role of labor unions as political machines in the Latin American context.

Finally, our paper is also related to the work by Berger et al. (2008) who provide evidence that the location of polling stations influence voters' decisions in the United States. Our results suggests that the location of polling stations in schools, a common phenomenon across many democracies, may give teachers a disproportionate advantage on voter mobilization and

⁴Interestingly, in the case of the teacher's union, the market-oriented reforms did not weaken its strength or widespread presence across the Mexican territory. Thus, unlike the case of labor unions in other countries like Argentina, SNTE not only did not disappear as an important political actor, but was in fact able to perform as a very effective political machine.

monitoring, thereby enabling clientelistic practices.

3 Background

3.1 The SNTE as a Political Machine

The Mexican National Educational Workers Union –commonly known as the SNTE, its acronym in Spanish– is the largest union in Latin America, with over 1.4 million members. Formed in 1949, the SNTE is divided in 59 local sections across 32 states. Some states are divided into multiple local sections since in some cases federal, state and private school workers are grouped into different sections. Through most of its history the federal leaders of the SNTE exerted the monopoly over the control of its local sections.⁵ However, in the past decades they have started facing competition from the National Coordinator of Educational Workers (CNTE) and some state independent unions, a phenomenon that we discuss in depth later.

Since its genesis the leadership of the SNTE has exploited the far-reaching structure of the SNTE turning it into a political machine originally at the service of the long-ruling Institutional Revolutionary Party (PRI). However, in 2005 the traditional alliance between the SNTE and the PRI suffered a rupture. Since this break the SNTE has formed varying alliances with candidates of different parties. To understand the nature of those alliances, it is important to know the trajectory of the until recently main SNTE’s leader, Elba Esther Gordillo, who is portrayed in Figure 1.

Gordillo was the main leader of the SNTE for more than two decades and held powerful positions within the PRI. She started presiding the SNTE in 1989 and had to step down in 2013 due to her imprisonment for the embezzlement of USD 160 millions. Gordillo joined the PRI’s ranks in 1970 and occupied several PRI positions reaching the party’s vice-presidency in 2002 and becoming the head of the PRI faction in the Chamber of Deputies in 2003. However, in light of the 2006 presidential elections, Gordillo started a political war against Roberto Madrazo for the PRI’s presidential candidacy. As a result, Gordillo lost her leadership position in the PRI faction in the Chamber of Deputies when PRI deputies voted to oust her as head. Gordillo accused Madrazo of trying to bribe her with the party’s presidency in exchange for supporting his candidacy. Ultimately, the PRI expelled Gordillo from its ranks and Madrazo ran as presidential candidate representing the PRI.

⁵When the Agreement for the Modernization of Basic and Normal Education –ANMEB, its acronym in Spanish– was signed in 1992, the federal leaders of the SNTE not only became the sole intermediaries in labor negotiations, such as salaries or benefits for the members, but they also gained the right to appoint or replace the leaders of the local sections. Thanks to the ANMEB the national leaders of the SNTE further strengthened their power over the control of the sectional leaders.

After leaving the PRI in 2005 Gordillo founded her own political party –the New Alliance Party (PANAL)– to participate in the 2006 federal elections. The political machine of the SNTE then passed on to the service of the PANAL. The Mexican presidency became no longer a feasible goal for Gordillo.⁶ Instead, the focus of Gordillo and the PANAL in the federal election has been the share of federal representatives and senators that are chosen by proportional representation.⁷ However, Gordillo saw a way to profit from the votes the SNTE’s political machine could collect for the presidential elections.

In 2006 Gordillo allegedly sold the votes of the SNTE’s political machine for the presidential race to the candidate of the National Action Party (PAN), Felipe Calderón.⁸ According to the analysts, the alliance that the PAN forged with the SNTE was essential for the victory of Felipe Calderón. He won by 0.58% winning margin (243,934 votes), which the SNTE’s political machine could easily account for. The deal between Gordillo and the PAN was made public and the candidate of the losing party – Andrés Manuel López Obrador from the Party of the Democratic Revolution (PRD) – brought the result of the election to court. Recordings of Gordillo stating the sale of the votes of the SNTE’s political machine for the presidential race to the PAN were used as evidence during the federal electoral court case.

In 2012 Gordillo sold the votes of the SNTE’s political machine for the presidential election to the PRI’s candidate, Enrique Peña Nieto (Hernández and Durán, 2011).⁹ The press revealed the existence of the *Ágora* plan, a highly complex strategy designed for the SNTE’s political machine to supply the PRI’s presidential candidate with 5 million votes (Avilés, 2012). The *Ágora* plan entailed driving 3 millions 434 thousand 125 citizens to the polling stations, the use of 27 thousand 473 members of the SNTE’s political machine, and a total cost of 151 million 277 thousand 750 Mexican pesos. The work of the SNTE’s political machine probably contributed to the victory of Enrique Peña Nieto since his winning margin –3 millions 329 thousand 785 votes (6.77%)– was considerably below the number of votes that the SNTE’s political machine supposedly contributed with.

⁶Because of the lack of a natural base of supporters most analysts did not expect that the PANAL would reach the minimum vote share in the 2006 federal election to keep its registry to compete in federal elections.

⁷Mexico congressmen are chosen through a mixed system of plurality voting (PV) and proportional representation (PR). Out of 500 representatives, 300 are chosen through PV and 200 by PR. Out of 128 senators, 96 are elected by PV, and 32 through PR.

⁸The PANAL also made a strategic choice of its presidential candidate –Roberto Campa Cifrián– to draw voters away from Felipe Calderón’s main challenger for the Mexican presidency.

⁹Additionally, the PANAL made again a strategic choice of its presidential candidate –Gabriel Quadri– to draw voters away from Andrés Manuel López Obrador, who was once more one of the two main contenders for the Mexican presidency.

3.2 Erosion of the Power of the SNTE

As anticipated above, in the past decades the SNTE's monopoly over the control of its local sections has been challenged. In 1979 the educational workers that disagreed with the practices of the federal leaders of the SNTE organized themselves under the umbrella of the CNTE to challenge their power (Cutz, 2009). Currently, the CNTE controls local sections of the states of Chiapas, the Federal District, Guerrero, Michoacán, and Oaxaca (Santibañez and Jarillo, 2008) and it also has a significant presence in local sections of the states of Chihuahua, Hidalgo, Morelos, Nuevo León, Puebla, Querétaro, Tlaxcala and Zacatecas (Jaramillo, 2008; Simonnet, 2012). Additionally, educational workers from the states of Baja California and Tabasco are organized in independent state teachers' unions (Simonnet, 2012).

Later we exploit the erosion of the power of the SNTE in several states as a robustness check in the identification of the electoral impact of the SNTE's political machine. A potential concern of this exercise is that local sections where the SNTE's control is stronger are also places where clientelistic practices are more frequent or strongholds of a certain party. Figure 2 shows graphically the distribution of the influence of the SNTE in the Mexican territory. Neither a correlation with places characterized by political clientelism nor with strongholds of a certain party are apparent.

3.3 SNTE's Strategies for Voter Mobilization

To understand the empirical strategy we outlay in Sections 4 and 6 it is important to review the different strategies that the SNTE's political machine utilizes for voter mobilization. The SNTE's political machine has a pyramidal structure where the SNTE's leaders mobilize school directors and teachers, who subsequently mobilize the parents of their students.

The SNTE's leaders control school directors and teachers mostly through coercion. In the local sections under the SNTE's control, the SNTE enjoys full discretion over the appointment, firing and reallocation of teachers, as well as over bonuses, preferred loans, etc. Consequently, in an environment where 70% of school teachers are waiting for an appointment, teachers are threatened that they will lose their job or will not have access to one if they do not work for the SNTE's machine or do not get enough votes (Cantú, 2009; Pereyra, 2012; Rojas, 2012).

There are various strategies that are used to monitor and enforce teachers' performance. For example, in the so called 10 x 1 strategy teachers are requested to provide copies of the voting credential of ten parents, whose turnout is later monitored at the polling stations by SNTE's affiliates (Cantú, 2009; Rojas, 2012). The SNTE also uses cut-off strategies through which, if the teachers in charge of the mobilization of the parents that belong to a polling

station are unable to deliver a predetermined amount of votes, they investigate and punish those who did not do their job (Del Valle, 2009; Coronel, 2012).

In turn, school directors and teachers mobilize parents through different means. To begin with, teachers play a central role in their communities (Cantú, 2009). As such, they can influence the vote of uneducated parents and act as political brokers. Teachers normally mediate the access to fellowships that SNTE obtains from the Secretariat of Public Education (SEP). Additionally, they threaten uneducated parents that they will take away from them the social programs that they receive from the State government (Tiradero del Bote, 2012), which they actually have no discretion over. Ultimately, teachers drive parents to vote on the election day, which is an illegal practice in México. School directors also contribute to mobilize parents with threats that they will not enroll their children the following academic year if they do not turn out to vote for the indicated candidate (Llaven, 2012; López, 2012).

3.4 Why the Location of Polling Stations in Schools Matters

Teachers are influential members of their community and exert considerable influence and authority over poorly educated parents. Frequent and repeated interaction between teachers and parents further strengthen these ties. As pointed out by teachers from dissident unions in informal conversations, this makes teachers particularly good agents to mobilize and influence the electoral decision of parents and to monitor their turnout and voting decisions. As (Stokes, 2005; Finan and Schechter, 2012) suggest, effective political brokers need to be close to their community and understand which voters are more likely to respond to their influence.

In principle, teachers should be able to influence and monitor parents irrespective of where the latter vote. However, their influence is more likely to be effective whenever parents turn out to vote in the school where they send their children (Galán, 2012). Parents are more likely to respond to teacher's authority and to believe in their capacity to punish non-compliance whenever they vote in a school where these work. Literature shows that perceptions of authority are context-specific and parents associate a teacher's authority with the schools where they normally interact.

Similarly, parents are more likely to believe in the capacity of teachers to monitor and observe their voting behavior whenever teachers are present in the polling stations when they cast their vote. To make use of this, the SNTE's political machine usually places teachers as party representatives in polling stations. Additionally, it exerts a considerable effort to place school directors and teachers as polling station officials (Franco, 2012). The polling station officials have a significant role and interaction with voters that contributes to reinforce their authority and influence.¹⁰

¹⁰They are responsible for asking voters for their voting credential, crossing it against the list of voters

The location of the polling stations in schools also makes it easier for the SNTE’s machine to allocate school directors and teachers as polling station officials (Rivera, 2012). To begin with, polling station officials are trained in the location of the polling stations, and thus, school directors and teachers can identify the parents who are supposed act as officials. School directors and teachers can then use their influence to deter parents from showing up as polling station officials on the day of the election. While the Mexican electoral law establishes that absent polling station officials should be replaced by the first individual that is lined up to vote, school directors and teachers often abuse their authority to act as replacements.

3.5 Allocation of Polling Stations to Schools

Due to the nature of the anticipated identification strategy, a natural concern is that the allocation of polling stations to schools might be systematically manipulated or correlated with other variables. This could confound our estimates and make it hard for us to interpret our results. However, we argue that the rules regarding the allocation of polling stations within precincts, together with a within state-year analysis alleviate such a concern.

There are several restrictions over the composition of the board that allocates polling stations in each of Mexico’s 300 federal districts. This makes it unlikely that board members engage in deliberate manipulation in the allocation of polling stations to schools. For every federal election, a temporary district board is formed to administer the election in every district. Among their many responsibilities, the district boards are in charge of the allocation of polling stations within precincts where voters are located. The board consists of IFE officials and citizens with very limited involvement with political parties in the past.¹¹

However, while district boards may not deliberately manipulate the allocation of polling stations to favor a specific party, there may still be a bias towards schools in states where the SNTE’s federal leaders control the local school sections. To allocate polling stations, before every election the district board members identify all places that satisfy the requirements to constitute a polling station. Among the potential locations they prioritize according to the following ranking: school, public offices, public places and private houses. Together with availability, an important constraint to allocate polling stations to schools is the willingness of the local teachers to collaborate with the IFE in setting up polling stations and training election officials. Anecdotal evidence suggests that teachers from school sections under the

registered at the polling station, and marking their thumb with ink to signal they have voted to prevent double voting.

¹¹District boards consist of a president, who is the president of the corresponding permanent district council, six electoral councilors, who cannot have run for office in the past three years or been a party leader at municipal, state or federal level, or been party representatives.

umbrella of the SNTE are relatively more likely to cooperate with the IFE, while teachers affiliated with dissident teachers' unions are unwilling to collaborate and even prevent officials from setting up polling stations (Rodríguez, 2013). This evidence is also supported with figures that show greater incidence of polling stations in schools in states where school sections are largely controlled by the SNTE's federal leaders. Thus, one concern is that having a polling station located in a school may confound with the strength of the SNTE in that particular state.

To deal with this potential confounder, we always rely on a within state-year analysis. We do this by including state-year fixed effects in all of our regressions. These should deal with the differential degree of cooperation of state school sections linked to the SNTE relative to those affiliated to dissident teachers' unions. Therefore, for each election year, we keep the strength of the SNTE in every state constant, and rely on within state idiosyncratic allocation of polling stations to schools.

4 Empirical Strategy and Data Description

4.1 Empirical Strategy

In our baseline empirical strategy we exploit two of the sources of variation explained in Section 3: the alliances that the SNTE established with various parties for different races over time, and the fact that the location of the polling stations in schools makes it easier for the SNTE's political machine to operate. With these two sources of variation we use two complementary identification strategies to test the prediction that the candidates that were *de facto* supported by the SNTE got more votes in the places where the machine operated more intensively.

First, we test whether, among the candidates that were *officially* aligned to the SNTE, those that were *de facto* supported by the SNTE got more votes in polling stations located in schools. The candidates that were *officially* supported by the SNTE's machine were those affiliated to the PRI in 2000, and the PANAL in 2006 and 2012. For elections for representative to the Chamber of Deputies the SNTE always supported its official candidates, and thus, for this office the *official* and *de facto* candidates coincide. For presidential elections, the *official* and *de facto* candidates coincide for 2000 but differ in 2006 and 2012 since the SNTE supported the presidential candidate of PAN and PRI, respectively. We define a *de facto official* dummy that takes a value of one for candidates from the SNTE's official parties who received the *de facto* support from the SNTE for a given office, and zero otherwise. The coding of the dummy can be summarized as follows:

Year	2000		2006		2012	
Race	P	R	P	R	P	R
SNTE's <i>official party</i>	PRI	PRI	PANAL	PANAL	PANAL	PANAL
<i>De facto official</i>	1	1	0	1	0	1

where P and R indicate the races for president and representative to the Chamber of Deputies, respectively.

Second, we can test whether among all the candidates of the parties to whom the SNTE sold the votes and supported *de facto* for the presidential race, those who were *de facto* supported by the SNTE got more votes in polling stations located in schools. We refer to parties to whom the SNTE sold the votes for the presidential race as *other parties*. For the 2000 elections the *other party* coincides with the party officially supported by the SNTE, the PRI. For 2006 and 2012 the *other parties* correspond to the PAN and the PRI, respectively. We can define a dummy variable *de facto other* that takes a value of one for candidates from the *other parties* who received the *de facto* support from the SNTE for a given office, and zero otherwise. The coding of the dummy can be summarized as follows:

Year	2000		2006		2012	
Race	P	R	P	R	P	R
<i>Other party</i>	PRI	PRI	PAN	PAN	PRI	PRI
<i>De facto other</i>	1	1	1	0	1	0

Consider the electoral results for the races for president and representative for the years 2000, 2006, and 2012. To execute the first identification strategy, we focus on the vote share of the candidates of the party that was *officially* aligned to the SNTE as an outcome of interest. Since SNTE's machine operated more intensively in polling stations located in schools, in those polling stations, we should observe a larger electoral support for *official candidates de facto* supported by the SNTE. To explore this hypothesis, we run the following regression,

$$y_{pemsto} = \beta_0 + \beta_1 \cdot off_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot off_{to} \cdot pss_{pemst} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (1)$$

where y_{pemsto} is the vote share for the *official party* of the SNTE in polling station p in precinct e in municipality m in state s in year y for office o , off_{to} is a dummy variable that indicates whether SNTE's *official candidate* is *de facto* supported by the SNTE machine, and pss_{pemst} is a dummy variable that indicates whether the polling station is located in a school. In our most robust specification we include fixed effects for precincts, η_{es} .¹² We also control for state-year fixed effects, γ_{st} , to deal with the differential degree of cooperation of

¹²We also report regressions with state and municipality fixed effects.

state school sections linked to the SNTE relative to those affiliated to dissident teachers' unions, as well as to flexibly account for state specific-time trends. The prediction that the candidates who were *de facto* supported by the SNTE got more votes in the places where the machine operated more intensively implies that $\beta_3 > 0$.

To execute the second empirical strategy, we focus instead on the vote share of the candidates of the *other parties* (to whom the SNTE sold the votes and supported *de facto* for the presidential race), as an outcome of interest. Since SNTE's machine operated more intensively in polling stations located in schools, in those polling stations, we should observe a larger electoral support for candidates from *other parties de facto* supported by the SNTE. We test this prediction by running the following regression,

$$y_{pemsto} = \beta_0 + \beta_1 \cdot oth_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot oth_{to} \cdot pss_{pemst} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (2)$$

where y_{pemsto} is the vote share for the *other party* (PRI in 2000 and 2012 and PAN in 2006), and oth_{to} is a dummy variable that indicates whether the candidate of the *other party* was *de facto* supported by the SNTE. Again, the prediction that we are testing implies that $\beta_3 > 0$.

4.2 Data Description

As an outcome variable, we use election data at the polling station level for the federal races for president and chamber of deputies for the years 2000, 2006 and 2012. The data comes from the "Elections in Mexico" website. The Federal Electoral Institute (IFE) and various state electoral institutes supply its content.¹³

To identify whether a polling station is located in a school, we made use of the Mexican freedom of information law and requested the IFE to provide the location of each polling station during the federal elections for the years 2000, 2006 and 2012.¹⁴

To compute the number of primary and secondary schools of different types in every precinct, that we use in our section on robustness checks, we first obtained coordinates of the universe of primary and secondary schools from the Mexican Public Education Secretary website.¹⁵ Then, together with the demarcation of each precinct, which we got from the IFE, we used ArcGIS to compute the number of primary and secondary schools of each type in every precinct.

Finally, we use several studies and newspaper articles to code up the local school sections where there are school directors and teachers that are dissident to the control of federal

¹³The information was accessed through <http://www.eleccionesenmexico.org.mx/>

¹⁴The information was requested through <https://ciudadania.ife.org.mx/infomex/ActionInitSAILoginINFOMEX.do>

¹⁵The information was accessed through <http://www.snie.sep.gob.mx/SNIESC>

leaders of the SNTE, which we use in the section on robustness checks. We mainly obtained data on the local school sections under the control of either the CNTE or independent state teachers' unions from Jaramillo (2008), Santibañez and Jarillo (2008), and Simonnet (2012).

5 Results

5.1 Baseline Results

The regression results based on equations (1) and (2) are reported in Tables 1 and 2, respectively. The specification in column 1 includes state fixed effects while the specification in column 2 includes municipality fixed effects. In column 3 we report the most demanding specification where we include precinct fixed effects.

The results in Table 1 confirm that candidates from parties *officially* affiliated to the SNTE who are *de facto* supported by the SNTE receive on average roughly 2 additional percentage points in polling stations located in schools. The point estimates are remarkably stable across the different specifications which is reassuring and suggests that our estimates are not being driven by omitted variables at the municipal or precinct level. Moreover, notice that the coefficient β_2 on the main effect for whether the polling station is located in a school is very small and statistically insignificant. While this estimate is not causal, it suggests that, on average, SNTE's official party (PRI in 2000 and PANAL in 2006 and 2012) does not necessarily obtain more votes whenever the polling station is in a school.

These findings provide evidence on the importance of SNTE as a political machine and suggests that our results do not simply reflect the underlying preferences of voters from polling stations located in schools. Rather, our results suggest that those who vote in schools are more likely to support the candidate that the SNTE leadership wants them to support (and have instructed teachers to deliver votes for) rather than the *official* party affiliated with the SNTE.

Additionally, relative to the average electoral support enjoyed by PANAL (4% of the votes), the estimated effect is very large. The differential success enjoyed by candidates *de facto* supported by the SNTE in polling stations located in schools could explain roughly half of the vote share of PANAL.

The results presented in Table 2 are consistent and complement our results from Table 1. The estimates for β_3 suggest that candidates from *other parties* (i.e., parties not *officially affiliated* with SNTE but whom the SNTE deliberately supported in the presidential race) receive an additional two percentage points whenever they are *de facto* supported by the SNTE and the polling station is located in a school. Again, reassuringly all point estimates are stable across the different specifications.

The similarity in the estimates of β_3 that we obtain from the different identification strategies based on equations (1) and (2) is important for the interpretation of our results. The estimates based on (1) show us that the *official* party of the SNTE receives an additional two percentage points in polling stations located in schools whenever the SNTE decides to support it *de facto*. Which party receives the votes that do not go to SNTE’s official party when the SNTE does not support *de facto* its own official candidate? The estimates based on (2) show that these votes do not go to any other party, but go precisely to the *other party* that the SNTE decides to support *de facto*. Thus, the estimates from both empirical strategies are complementary and corroborate the importance of SNTE as a political machine in mobilizing voters for the candidate it supports *de facto*.

In sum, our baseline results presented in Tables 1 and 2 provide evidence of a *causal* effect of SNTE’s *de facto* support of a candidate on that candidate’s vote share. This result relies on the fact that the SNTE is able to exert more effective influence on voters when the polling station is located in a school. The stability of the point estimates across specifications and across the different identification strategies gives us further confidence in our results and interpretation.

5.2 Robustness Checks

In this section we perform a series of robustness checks and address other potential concerns with our identification strategies.

One potential problem is that the location of a polling station might be correlated with the availability of schools in a given precinct and thus, with the presence of more educated voters. In other words, the polling station being located in a school may not only capture the fact that the SNTE’s machine operates more intensively in those areas but also the presence of more educated people. If we believe that more educated people are more strategic in their voting decisions (e.g., they do not ‘waste’ their vote for the presidential race by voting for the PANAL presidential candidate in the 2006 and 2012 elections), then our estimate of β_3 may confound the effect of SNTE as an electoral machine with the strategic decision of more educated voters.

However, this concern is not supported by the fact that survey data do not suggest that more educated voters are more likely to vote for PANAL (see CIDE/CSES (2009)). Moreover, notice that the results presented in Table 2 show that in races for president, the votes that PANAL loses in schools do not go to any candidate but precisely to the candidate supported by the SNTE. At least for the 2006 election, an alternative hypothesis based on strategic voting would have implied that a sizable fraction of these votes should have gone to the PRD given how close and uncertain the outcome of that specific race was.

Nonetheless, in order to address this potential concern we perform a series of robustness checks. First, we control for the availability of different types of schools in an precinct. Second, we exploit the fact that the SNTE’s machine does not operate as intensively in many local school sections since these fell under the control of the CNTE or state independent teacher’s unions. Thus, we can test whether the effect we estimate is absent in the dissident areas where the SNTE’s machine is less present. To that end we estimate the following regressions,

$$y_{pemsto} = \beta_0 + \beta_1 \cdot off_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot off_{to} \cdot pss_{pemst} + \beta_4 \cdot off_{to} \cdot dis_{st} + \beta_5 \cdot pss_{pemst} \cdot dis_{st} + \beta_6 \cdot off_{to} \cdot pss_{pemst} \cdot dis_{st} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (3)$$

and

$$y_{pemsto} = \beta_0 + \beta_1 \cdot oth_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot oth_{to} \cdot pss_{pemst} + \beta_4 \cdot oth_{to} \cdot dis_{st} + \beta_5 \cdot pss_{pemst} \cdot dis_{st} + \beta_6 \cdot oth_{to} \cdot pss_{pemst} \cdot dis_{st} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (4)$$

where dis_{st} is a variable between 0 and 1 that indicates the strength of dissident teachers’ unions in state s in year t . It takes value 0 if the state is fully under SNTE’s control, 0.5 if there is both SNTE and dissident state presence, and take value 1 if the state is fully under the control of dissident teachers’ unions.

Table 3 and Table 4 present analogous specifications to those reported in Table 1 and Table 2, respectively, and include controls for the number of different types of schools. In particular, we include measures for the number of indigenous primary schools, CONAFE primary schools, public general primary schools, private primary schools, public secondary schools, private secondary schools, and telesecondary schools, as well as the interaction of these variables with a dummy variable that indicates whether the candidate was *de facto* supported by the SNTE’s machine. While the estimated coefficients on the effect of the SNTE’s machine is somewhat smaller relative to the corresponding specifications with no controls, they remain sizable and statistically significant. Thus, our estimates are robust to controlling for the presence of schools in the polling station area. Note that the relative drop in the coefficient is partially explained by the fact that the controls also capture the presence of the SNTE’s machine, which ideally we would not want to control for. Thus, we should interpret these estimates as a lower bound.

Tables 5 and 6 present the corresponding estimates for specifications (3) and (4). There is no evidence of a differential electoral performance of candidates *de facto* supported by the SNTE in polling stations located in schools, in school sections where the SNTE does not exert control over teachers. Notice that the coefficient on the triple interaction reported in

the last row of each table, which captures the additional effect in dissident school sections, is negative and similar in absolute value to the baseline estimate reported in the third row. In fact, the total effect on dissident school sections (computed by adding the coefficients in the third and sixth rows) is statistically indistinguishable from zero.

These results provide further evidence on the role of the SNTE as a political machine and rule out to a great extent any alternative interpretations based on the electoral behavior of more educated voters. Such alternative explanations would need to justify a differential behavior of educated voters across school sections aligned to and dissident from the SNTE, which seems highly unlikely.

6 Direct Evidence on the Channels

In this section we provide direct evidence on the channels through which the SNTE’s political machine operates. As highlighted in section 3 the SNTE’s operation relies on two sources of mobilization: the SNTE’s leaders mobilize school directors and teachers, who subsequently mobilize the parents of their students. We document two exercises –one successful and another unsuccessful– and describe the plan for a third one that aims at providing direct evidence that these two sources of mobilization are at work.

To provide evidence of the monitoring of school directors and teachers by the SNTE’s officials, we exploit variation in polling station size. The SNTE controls school directors and teachers through the conditioning of access to or withdrawal of targeted benefits on voting outcomes. The SNTE commonly uses strategies through which, if the teachers are unable to deliver a predetermined amount of votes, they investigate and punish those who did not do their job. A recent theoretical literature shows that it is easier to provide incentives to political brokers when electoral outcomes are observed at a lower level of aggregation Larreguy and Querubin (2014); Rueda (2013a,b). We then exploit plausible exogenous variation in polling station size to test whether our estimates are driven by polling stations with fewer voters.

The IFE organizes voters into precincts to facilitate the administration of elections. In every election, voters within a given precinct are ordered alphabetically and then split evenly into polling stations to satisfy the rule that polling stations cannot have more than 750 voters. As a result of the allocation rule, precincts with a very similar number of voters present strikingly different number of voters per polling station. This is reflected in figure 3 that shows how the number of voters per polling station changes discontinuously with the number of voters per precinct.

To test how our effects differ across polling stations with varying number of voters while

controlling for the number of voters at the precinct level, we estimate the following regressions,

$$y_{pemsto} = \beta_0 + \beta_1 \cdot off_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot off_{to} \cdot pss_{pemst} + \beta_4 \cdot size_{pemst} + \beta_5 \cdot off_{to} \cdot size_{pemst} + \beta_6 \cdot pss_{pemst} \cdot size_{pemst} + \beta_7 \cdot off_{to} \cdot pss_{pemst} \cdot size_{pemst} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (5)$$

and

$$y_{pemsto} = \beta_0 + \beta_1 \cdot oth_{to} + \beta_2 \cdot pss_{pemst} + \beta_3 \cdot oth_{to} \cdot pss_{pemst} + \beta_4 \cdot size_{pemst} + \beta_5 \cdot oth_{to} \cdot size_{pemst} + \beta_6 \cdot pss_{pemst} \cdot size_{pemst} + \beta_7 \cdot oth_{to} \cdot pss_{pemst} \cdot size_{pemst} + \eta_{es} + \gamma_{st} + \epsilon_{pemsto}, \quad (6)$$

where $size_{pemst}$ is the number of voters in polling station p in precinct e in municipality m in state s in year t . Additionally, while omitted in equations (5) and (6), we also include the number of voters at the precinct level and its interactions with all variables that are interacted with $size_{pemst}$. With this strategy we then pick the plausibly exogenous variation in the number of voters at the polling station level that is not confounded by the number of voters at precinct level.

Tables 7 and 8 present the corresponding estimates for specifications (5) and (6). The estimates indeed confirm that our estimates are driven by polling stations with fewer voters, which is consistent with the fact that SNTE uses electoral results at a low level of aggregation to monitor school director and teachers.

To provide evidence of the mobilization of parents by school directors and teachers, we tried to test whether our estimates were driven by polling stations where there was a substitution of polling station officials. As described in section 3, teachers may be able to exert more effective influence on polling stations located in schools precisely by identifying and substituting election officials. We then made use of the Mexican freedom of information law and requested the IFE to provide data on those polling stations for the years 2000, 2006 and 2012, together with data on the special attention precincts for the same years. SNTE's replacement of polling station officials is more likely in those precincts (Raphael, 2007).

Unfortunately, data problems prevented us from executing this strategy successfully. To begin with, the data is only available for the most recent elections. Additionally, the incidence of election official substitution and special attention precincts is extremely low, 10% and 15% respectively in the sample for which such data is available. Results using a fully saturated model that addresses the missing data problem provide extremely noisy estimates. Additionally, while we observe tenuous associations of the location of polling stations in schools with both election official substitution and special attention precincts, we expect these to be severely underestimated. The replacement of officials and special attention precincts are more likely in remote areas where there is no school availability.

Finally, we are currently working on some additional exercises to provide a direct test of the mechanism by which the teachers controlled by the SNTE influence voters and affect electoral outcomes. As a measure on the effectiveness with which teachers can influence parents of school children in a given area, we will exploit spatial variation in the location of polling stations and schools. Assuming that parents send their kids to the closest school, we can construct a measure of the extent to which those who vote in a school are also likely to send their kids to that particular school. This will allow us to assess the relevance of some of the coercion mechanisms described in section 3 such as the extent to which school directors and teachers can threaten parents with the continuing enrollment of their children.

7 Conclusion

In this paper we provide evidence on the role of the SNTE as a political machine. Candidates who receive the *de facto* support of the SNTE obtain on average two additional percentage points in places where teachers can exert a more effective influence on voters, which we capture with the polling station being located in a school. The effect is sizable and can explain up to half of the vote share obtained on average by PANAL, SNTE's official party founded in 2005. Consistent with our interpretation, we only find evidence of such an effect in places where the SNTE leadership exerts control over teachers. Our results are also robust to the inclusion of fixed effects at the state, municipal and precinct level, and to various measures for the presence of schools in the corresponding precinct, the minimum level at which voters are grouped into.

We are currently working on an additional identification strategy. In particular, in order to address the potential endogeneity of having a polling station located in a school, we will use an identification strategy based on the fact that polling stations are usually located in the largest localities within municipalities. Thus, we will construct an instrument based on the interaction between a measure for the relative size of the locality and of the availability of schools in the locality.

Overall, our current set of results contribute to the existing literature on clientelism and stresses the importance of labor unions as political machines. They also point to the importance of understanding the consequences of the location of voting precincts. Voting precincts located in areas where political brokers are more effective at mobilizing, coercing or monitoring voting may exacerbate clientelistic practices. These are important and exciting areas for future research.

References

- Acemoglu, D., S. Johnson, and J. Robinson (2005). Institutions as the fundamental cause of long-run growth. *Handbook of Economic Growth*, ed. Philippe Aghion and Stephen Durlauf, 385–472.
- Avilés, K. (2012, June 25th). *Al descubierto, plan del SNTE para captar 5 millones de votos*. Mexico: La Jornada.
- Berger, J., M. Meredith, and C. Wheeler (2008). Contextual priming: Where people vote affects how they vote. *Proceedings of the National Academy of Sciences* 105(26), 8846–8849.
- Cantú, J. (2009, October 10th). *Los Brazos del SNTE*. El Orbe.
- Chandra, K. (2004). *Why Ethnic Parties Succeed: Patronage and Ethnic Head Counts in India*. New York, NY: Cambridge University Press.
- Chang, T. F. (2001). The labour vote in us national elections, 1948–2000. *The Political Quarterly* 72(3), 375–385.
- CIDE/CSES (2009). Estudio Nacional Electoral CIDE CSES 2009: Resultados de la encuesta postelectoral realizada por el Centro de Investigación y Docencia Económicas (CIDE). Technical report.
- Coronel, J. M. (2012, April 3rd). *Activa PANAL su Famoso Voto Corporativo*. Luces del Siglo.
- Cutz, R. C. (2009). *Qué Festeja la CNTE: 30 Años de Lucha de los Trabajadores de la Educación*. Mexico: Unidad.
- Del Valle, S. (2009, August 12th). *Acusan a la SNTE de Coacción*. Reforma.
- Delaney, J. T., M. F. Masters, and S. Schwochau (1990). Union membership and voting for cope-endorsed candidates. *Industrial and Labor Relations Review* 43(5), 621–635.
- Feigenbaum, J. J. (2013). The effects of labor unions on elections. *Mimeo*.
- Finan, F. and L. Schechter (2012). Vote-buying and reciprocity. *Econometrica* 80(2), 863–881.
- Franco, A. (2012, March 26th). *Maestros del SNTE cuidarán el Voto el Día de la Elección*. Despertar Tamaulipas.

- Freeman, R. (2003). What do unions do....to voting? Nber working paper 9992.
- Frymer, P. (2010, June). Labor and american politics. *Perspectives on Politics* 8(2), 609–616.
- Galán, A. A. (2012, June 26th). *SNTE 23 y 51 Alistaron a Maestros para el Fraude a Favor de EPN: Maldonado*. La Jornada de Oriente.
- Goldfield, M. (1989). Worker insurgency, radical organization, and new deal labor legislation. *American Political Science Review* 83(4), 1257–1282.
- Hernández, E. and M. Durán (2011, March 25th). *Alerta PRD y AN Coacción del SNTE*. Reforma.
- Hernández, L. (2013, February 28th). *Elba se embolsaba 140 millones al mes; descontaba a cada profesor \$100 en promedio*. Excelsior.
- Hicken, A. (2011). Clientelism. *Annual Review of Political Science* 14, 289–310.
- Jacobs, L. R. and T. Skocpol (2005). *Inequality and American Democracy: What We Know and What We Need to Learn*. Russell Sage Foundation.
- Jaramillo, G. (Ed.) (2008). *Descentralización y reforma educativa en la ciudad de México*. Secretaría de Educación del Distrito Federal.
- Juravich, T. and P. R. Shergold (1988). The impact of unions on the voting behavior of their members. *Industrial and Labor Relations Review* 41(3), 374–385.
- Kitschelt, H. and S. I. Wilkinson (2007). *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. Cambridge, UK: Cambridge University Press.
- Larreguy, H. (2013). Monitoring political brokers: Evidence from clientelistic networks in mexico. *Mimeo*.
- Larreguy, H. and P. Querubin (2014). What is the effect of turnout buying? theory and evidence from méxico. *Mime*.
- Leighley, J. E. and J. Nagler (2007). Unions, voter turnout, and class bias in the u.s. electorate, 1964-2004. *The Journal of Politics* 29(2), 430–441.
- Levitsky, S. (2001a). Organization and labor-based party adaptation: The transformation of argentine peronism in comparative pespective. *World Politics* 54(1), 27–56.

- Levitsky, S. (2001b). Organization and labor-based party adaptation: The transformation of argentine peronism in comparative perspective. *World Politics* 54(1), 27–56.
- Levitsky, S. (2003a). From labor politics to machine politics: The transformation of party-union linkages in argentine peronism, 1983-99. *Latin American Research Review* 38(3), 3–36.
- Levitsky, S. (2003b). *Transforming Labor-Based Parties in Latin America: Argentine Peronism in Comparative Perspective*. Cambridge University Press.
- Levitsky, S. and S. Mainwaring (2006). Organized labor and democracy in latin america. *Comparative Politics* 39(1), 21–42.
- Llaven, Y. (2012, June 11th). *En Luz Obrera, Directivos de Preescolar y Primaria Coaccionan Voto a Favor del PANAL*. La Jornada de Oriente.
- López, J. (2012). *Directivo de Primaria de Tizayuca Coacciona el Voto a Favor del PANAL*. Vía Libre.
- Nichter, S. (2008). Vote buying or turnout buying? Machine politics and the secret ballot. *American Political Science Review* 102(1), 19–31.
- Pereyra, J. (2012, May 17th). *La Mafia del SNTE y Elba Esther Gordillo*. Bazaar Político.
- Radcliff, B. and P. Davis (2000). Labor organization and electoral participation in industrial democracies. *American Journal of Political Science* 44(1), 132–141.
- Radcliff, B. and M. Saiz (1998). Labor organization and public policy in the american states. *The Journal of Politics* 60(1), 113–125.
- Raphael, R. (2007). *Los Socios de Elba Esther*. Planeta.
- Rivera, G. (2012, June 13th). *El Largo Brazo de Elba Esther*. Nueva Era Política Economía y Sociedad en México.
- Rodríguez, O. (2013, July 4th). *CNTE no dejará instalar casillas en escuelas de Oaxaca*. Milenio.
- Rojas, H. (2012, June 27th). *Coacciona SNTE votos de Maestros y Padres de Familia*. Educación a Debate.
- Rueda, M. R. (2013a). Buying votes with imperfect local knowledge and a secret ballot. *Mimeo*.

- Rueda, M. R. (2013b). Election aggregates and the choice of electoral manipulation strategies. *Mimeo*.
- Santibañez, L. and B. Jarillo (2008). Conflict and power: The teachers' union and education quality in Mexico. *Well-Being and Social Policy* 3(2), 21–40.
- Schaffer, F. C. (2007). *Elections for Sale: The Causes and Consequences of Vote Buying*. Boulder, CO: Lynne Rienner Publishers.
- Simonnet, C. (2012, March 11th). *Elba: Fortalezas y Debilidades*. Mexico: Reforma.
- Solano, L. P. (2009, August 12th). *El SNTE controla politicamente 320 mil maestros*. La Jornada.
- Stokes, S. (2005). Perverse accountability: A formal model of machine politics with evidence from Argentina. *American Political Science Review* 99(3), 315–325.
- Tiradero del Bote (2012, June 26th). *El SNTE Coacciona Voto en Escuelas a Favor del PRI*. <http://www.tiraderodelbote.blogspot.mx/>.

Appendix A: Figures and Tables



Figure 1: Elba Esther Gordillo

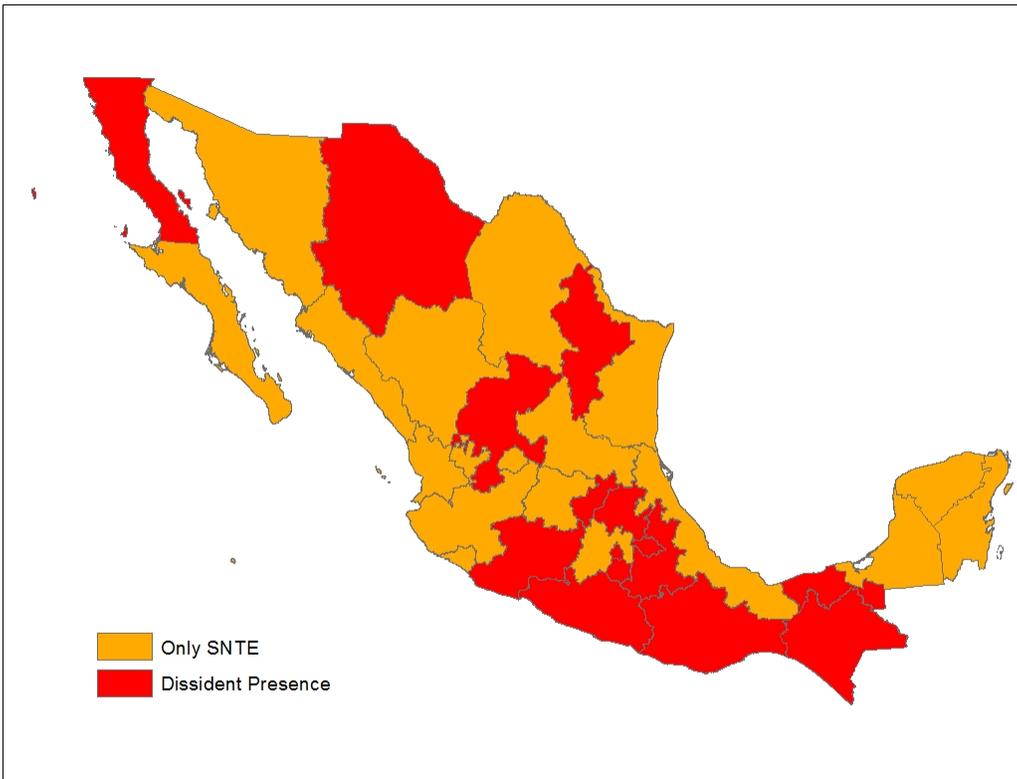


Figure 2: Distribution of the Influence of the SNTE in México

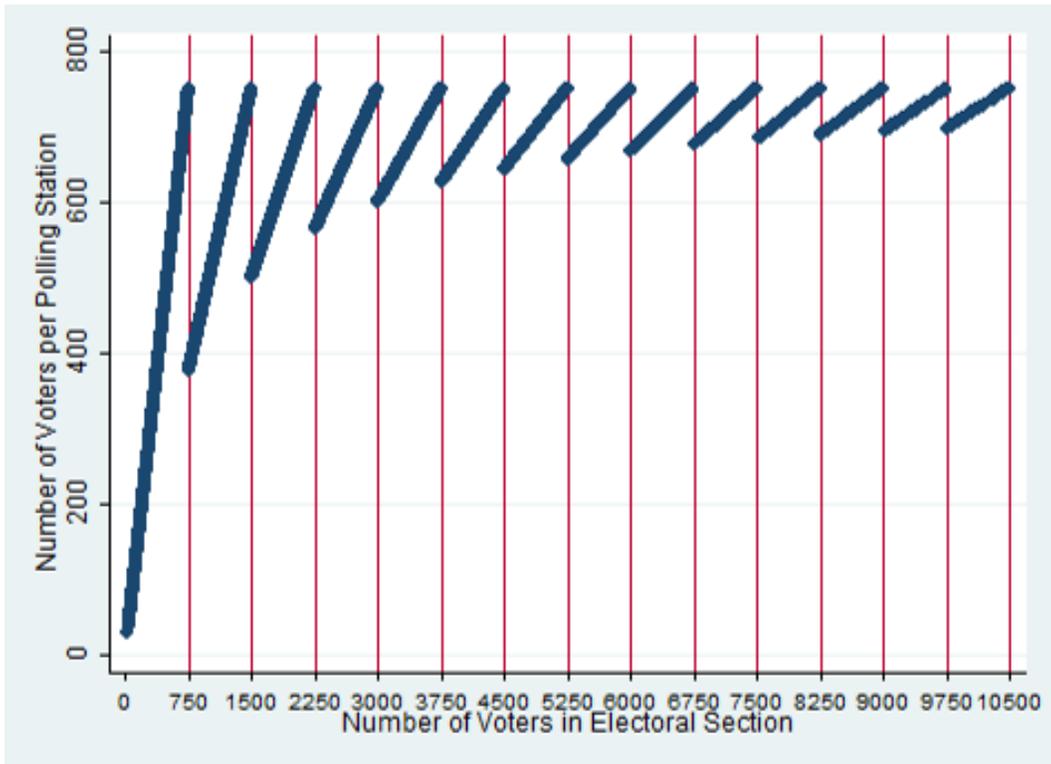


Figure 3: Empirical Distribution of Registered Voters per Polling Station as a Function of Registered Voters by Precinct

Table 1: The Effect of a Polling Station in a School on Vote Share of Official Candidates with De Facto Support

	(1)	(2)	(3)
De Facto Official	.0155*** [.0034]	.0173*** [.003]	.0155*** [.0034]
Polling Station at a School	.0012* [6.1e-04]	-0.0019 [.0011]	0.0013 [9.1e-04]
De Facto Official * Polling Station at a School	.0173*** [.0026]	.0145*** [.0023]	.0173*** [.0026]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Precinct Fixed Effect	No	No	Yes
Mean Outcome	0.0308	0.0308	0.0308
St. Dev. Outcome	0.0354	0.0354	0.0354
Observations	699,503	699,503	699,503
R - squared	0.8176	0.8521	0.822

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties officially aligned to the SNTE –the PRI in 2000, and the PANAL in 2006 and 2012. De Facto Official is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 2: The Effect of a Polling Station in a School on Vote Share of Candidates from Other Parties with De Facto Support

	(1)	(2)	(3)
De Facto Other	-0.0034 [.0044]	-0.0027 [.0037]	-0.0034 [.0043]
Polling Station at a School	0.0053 [.0041]	-0.0028 [.0018]	0.0043 [.0032]
De Facto Other * Polling Station at a School	.017*** [.0037]	.016*** [.003]	.017*** [.0037]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Precinct Fixed Effect	No	No	Yes
Mean Outcome	0.3959	0.3959	0.3959
St. Dev. Outcome	0.157	0.157	0.157
Observations	699,503	699,503	699,503
R - squared	0.3246	0.4323	0.3455

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties to whom the SNTE sold the votes for presidential election –the PRI in 2000 and 2012, and the PAN in 2006. De Facto Other is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 3: The Effect of a Polling Station in a School on Vote Share of Official Candidates with De Facto Support (with School Controls)

	(1)	(2)	(3)
De Facto Official	.0099*** [.0035]	.0137*** [.0032]	.01*** [.0035]
Polling Station at a School	9.10E-04 [8.5e-04]	-0.0011 [.0012]	0.001 [9.5e-04]
De Facto Official * Polling Station at a School	.0103*** [.0021]	.0099*** [.002]	.0103*** [.002]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Section Fixed Effect	No	No	Yes
Mean Outcome	0.0308	0.0308	0.0308
St. Dev. Outcome	0.0354	0.0354	0.0354
Observations	699,503	699,503	699,503
R - squared	0.825	0.8547	0.8289

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties officially aligned to the SNTE –the PRI in 2000, and the PANAL in 2006 and 2012. De Facto Official is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. School Controls include controls for the number of indigenous primary schools, CONAFE primary schools, public general primary schools, private primary schools, public secondary schools, private secondary schools, and telesecondary schools, as well as their interaction with actual candidate. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 4: The Effect of a Polling Station in a School on Vote Share of Candidates from Other Parties with De Facto Support (with School Controls)

	(1)	(2)	(3)
De Facto Other	-.0095** [.0043]	-.007* [.0037]	-.0095** [.0043]
Polling Station at a School	0.0049 [.0041]	-0.0016 [.0019]	0.0039 [.0031]
De Facto Other * Polling Station at a School	.0092*** [.0033]	.0106*** [.0024]	.0093*** [.0032]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Section Fixed Effect	No	No	Yes
Mean Outcome	0.3959	0.3959	0.3959
St. Dev. Outcome	0.157	0.157	0.157
Observations	699,503	699,503	699,503
R - squared	0.3404	0.4383	0.3606

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties to whom the SNTE sold the votes for presidential election –the PRI in 2000 and 2012, and the PAN in 2006. De Facto Other is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. Actual candidate is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. School Controls include controls for the number of indigenous primary schools, CONAFE primary schools, public general primary schools, private primary schools, public secondary schools, private secondary schools, and telesecondary schools, as well as their interaction with other candidate. * p<.1, ** p<.05, *** p<.01.

Table 5: The Effect of a Polling Station in a School on Vote Share of Official Candidates with De Facto Support in Aligned and Dissident School Sections

	(1)	(2)	(3)
De Facto Official	.0123** [.0048]	.0155*** [.0043]	.0124** [.0048]
Polling Station at a School	.0022*** [6.0e-04]	-0.0016 [.0013]	.0028*** [9.3e-04]
De Facto Official * Polling Station at a School	.0219*** [.0032]	.0172*** [.0032]	.0219*** [.0031]
De Facto Official * Dissident	0.0118 [.0092]	0.0068 [.0081]	0.0117 [.0092]
Polling Station at a School * Dissident	-0.0043 [.0027]	-0.0015 [.0034]	-.0053* [.0026]
De Facto Official * Polling Station at a School * Dissident	-.0184** [.0069]	-.0106* [.0062]	-.0183** [.0069]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Precinct Fixed Effect	No	No	Yes
Mean Outcome	0.0308	0.0308	0.0308
St. Dev. Outcome	0.0354	0.0354	0.0354
Observations	699,503	699,503	699,503
R - squared	0.8178	0.8521	0.8222

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties officially aligned to the SNTE –the PRI in 2000, and the PANAL in 2006 and 2012. De Facto Official is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. Dissident is a variable between 0 and 1 that indicates the strength of dissident teachers’ unions in state s in year t . It takes value 0 if the state is fully under SNTE’s control, 0.5 if there is both SNTE and dissident state presence, and take value 1 if the state is fully under the control of dissident teachers’ unions. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 6: The Effect of a Polling Station in a School on Vote Share of Candidates from Other Parties with De Facto Support in Aligned and Dissident School Sections

	(1)	(2)	(3)
De Facto Other	-0.0064 [.0066]	-0.0054 [.0053]	-0.0066 [.0064]
Polling Station at a School	.0102* [.0054]	-0.0012 [.0023]	.0093** [.0043]
De Facto Other * Polling Station at a School	.0206*** [.0052]	.0191*** [.004]	.0208*** [.0049]
De Facto Other * Dissident	0.012 [.0109]	0.0103 [.0092]	0.0123 [.0107]
Polling Station at a School * Dissident	-.0204* [.0101]	-0.0072 [.0049]	-.0189** [.0088]
De Facto Other * Polling Station at a School * Dissident	-0.0152 [.0142]	-0.0125 [.0099]	-0.0157 [.0144]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Section Fixed Effect	No	No	Yes
Mean Outcome	0.3881	0.3881	0.3881
St. Dev. Outcome	0.1522	0.1522	0.1522
Observations	699,503	699,503	699,503
R - squared	0.3255	0.4325	0.3463

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties to whom the SNTE sold the votes for presidential election –the PRI in 2000 and 2012, and the PAN in 2006. De Facto Other is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. Dissident is a variable between 0 and 1 that indicates the strength of dissident teachers’ unions in state s in year t . It takes value 0 if the state is fully under SNTE’s control, 0.5 if there is both SNTE and dissident state presence, and take value 1 if the state is fully under the control of dissident teachers’ unions. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 7: The Effect of a Polling Station in a School on Vote Share of Official Candidates with De Facto Support Across Poling Stations with Varying Size

	(1)	(2)	(3)
De Facto Official	.0593*** [.0096]	.0504*** [.0084]	.0529*** [.0095]
Polling Station at a School	0.000071 [.0013]	-.0106*** [.0029]	-.0222*** [.0066]
De Facto Official * Polling Station at a School	.0519*** [.0102]	.0477*** [.0098]	.0529*** [.0102]
Registered Voters	0.0000014 [3.5e-06]	9.6e-06** [4.4e-06]	1.5e-05** [5.6e-06]
De Facto Official * Registered Voters	-8.1e-05*** [1.3e-05]	-6.3e-05*** [1.2e-05]	-7.1e-05*** [1.3e-05]
Polling Station at a School * Registered Voters	0.0000011 [2.1e-06]	1.5e-05*** [3.5e-06]	4.1e-05*** [8.4e-06]
De Facto Off. * Poll. Stat. at a Sch. * Reg. Vot.	-6.5e-05*** [1.5e-05]	-6.1e-05*** [1.5e-05]	-6.5e-05*** [1.5e-05]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Precinct Fixed Effect	No	No	Yes
Mean Outcome	0.0308	0.0308	0.0308
St. Dev. Outcome	0.0354	0.0354	0.0354
Observations	697,314	697,314	697,314
R - squared	0.8229	0.8547	0.8681

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties officially aligned to the SNTE –the PRI in 2000, and the PANAL in 2006 and 2012. De Facto Official is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. Registered Voters are the number of registered voters at the polling station level. Additionally, we include the total number of registered interacted with all the variables that are interacted with Registered Voters. * $p < .1$, ** $p < .05$, *** $p < .01$.

Table 8: The Effect of a Polling Station in a School on Vote Share of Candidates from Other Parties with De Facto Support Across Poling Stations with Varying Size

	(1)	(2)	(3)
De Facto Other	.0425*** [.0118]	.0339*** [.0111]	.039*** [.0126]
Polling Station at a School	.0204*** [.0071]	-0.0021 [.0045]	-.0248*** [.0087]
De Facto Other * Polling Station at a School	.0535*** [.0118]	.0506*** [.0112]	.0552*** [.013]
Registered Voters	1.6e-05* [9.3e-06]	2.5e-05*** [7.5e-06]	5.6e-05*** [1.1e-05]
De Facto Other * Registered Voters	-8.1e-05*** [1.7e-05]	-6.7e-05*** [1.7e-05]	-7.7e-05*** [1.8e-05]
Polling Station at a School * Registered Voters	-3.4e-05*** [1.1e-05]	-0.000006 [6.5e-06]	2.8e-05** [1.3e-05]
De Facto Oth. * Poll. Stat. at a Sch. * Reg. Vot	-6.6e-05*** [1.7e-05]	-6.0e-05*** [1.6e-05]	-6.6e-05*** [1.9e-05]
State Fixed Effect	Yes	No	No
Municipality Fixed Effect	No	Yes	No
Section Fixed Effect	No	No	Yes
Mean Outcome	0.3961	0.3961	0.3961
St. Dev. Outcome	0.157	0.157	0.157
Observations	697,314	697,314	697,314
R - squared	0.3367	0.4376	0.511

Note: In all specifications, the unit of observation is the polling station, we include state-year fixed effects, and standard errors are clustered at the state level. The outcome variable is the vote share for the parties to whom the SNTE sold the votes for presidential election –the PRI in 2000 and 2012, and the PAN in 2006. De Facto Other is a dummy variable that indicates that the candidate was *de facto* supported by the SNTE’s machine. Registered Voters are the number of registered voters at the polling station level. Additionally, we include the total number of registered interacted with all the variables that are interacted with Registered Voters. * p<.1, ** p<.05, *** p<.01.