Why Vote Buying Fails:

Campaign Effects and the Elusive Swing Voter

Kenneth F Greene
Associate Professor
Department of Government
1 University Stn A1800
University of Texas at Austin
kgreene@austin.utexas.edu

Word Count = 11,336

Abstract: Does vote buying work? Research in various social science disciplines assumes that payoffs turn citizens into clients, regardless of voters' other attachments to the candidates. Yet modern vote buying occurs in competitive systems that feature aggressive campaigns designed to sway voters on policy and incumbent performance. I argue that these legitimate campaigns undermine vote buying because they cause brokers to unwittingly target the "wrong" clients. I provide a simple formalization that builds on prior models of vote buying and shows that campaigns make vote buying incredibly inefficient. Tests of the theory employ a list experiment embedded in the Mexico 2012 Panel Study and a new statistical methodology that uses individual-level probabilities derived from list experiments as explanatory variables in regression models. The findings cast doubt on the burgeoning literature on vote buying and yield a more optimistic view of political representation and accountability in new democracies.

In the days following Mexico's 2012 presidential election, the runner-up, Andrés Manuel López Obrador brought suit against the winner, Enrique Peña Nieto, in Mexico's Federal Electoral Tribunal. His main argument for nullifying the election rested on anecdotal evidence that Peña Nieto's campaign offered selective benefits to citizens for their votes, a practice that is illegal under Mexican law. In one public appearance, López Obrador surrounded himself with 3,000 gift cards from a grocery store chain that were reportedly handed over by repentant vote-sellers. Other voters claimed to have received cash, a job, building materials, food, clothing, access to social programs, and telephone cards.[1]

To López Obrador's supporters and one domestic election-monitoring organization (Alianza Cívica 2012), the evidence indicated a vote-buying scheme large enough to account for the 3.3 million-vote or 6.77 percentage-point deficit to Peña Nieto. Other analysts and international monitoring organizations doubted that the operation could have been so extensive (Simpser 2012, COPA 2012, author interviews 2012). Traditional survey research supported the view of limited vote buying (Cornelius 2004, Faughnan and Zechmeister 2011, Nichter and Palmer-Rubin 2015). Does vote buying work? Do payoffs generate votes for political machines that they would not have won otherwise?

Social science cannot currently answer this straightforward question. Recent theoretical work has advanced our understanding of *how* vote buying works, especially regarding which voters receive selective benefits (Stokes 2005, Stokes et al 2013, Kitschelt and Wilkinson 2007, Nichter 2008, Cox and McCubbins 1986, Dixit and Londregan 1996, Lindbeck and Weibull 1987, Lawson and Greene 2014, Schaffer and Baker 2015, Carlin and Moseley 2015), but problems of measurement and statistical estimation mean that analysts still do not know *whether*

[1] Tribunal Federal del Poder Judicial de la Federación (Mexico) SUP-JIN-0359-2012.

vote buying works. This limited understanding is not unique to outsiders looking in. The bosses and brokers that perpetrate clientelism might waste valuable resources when they buy votes instead of investing in modern legitimate campaigns. Even the election management bodies and courts tasked with organizing elections and certifying outcomes are unaware of the impact of vote buying. For instance, faced with López Obrador's challenge, Mexico's Federal Electoral Tribunal decided that vote buying's effect on voters' choices is impossible to ascertain (TEPJF 2012). It thus certified Peña Nieto's victory, the formerly dominant Institutional Revolutionary Party (PRI) returned to power, and López Obrador mounted large post-election protests. The inability of democratic institutions to determine the impact of vote buying undermines electoral integrity and encourages losers to protest rather than concede, potentially leading to distrusted and destabilized democracies.

In recent years, analysts have documented vote buying in at least 53 countries.[2] Vote buying is not a new phenomenon (Gosnell 1937), but the surge in democracy means that it now

[2] Argentina (Auyero 2000, Calvo and Murrillo 2004, Levitsky 2003, Stokes et al 2013, Szwarcberg 2015, Weitz-Shapiro 2014), Brazil (Hagopian 1996, Nichter 2010), Mexico (Cornelius 2004, Greene 2007, Magaloni 2006), Nicaragua (González-Ocantos et al 2012), all Latin American countries (Faughnan and Zechmeister 2011), Philippines (Hicken et al 2015), Benin (Wantchékon 2003), Senegal (Kramon 2013), Ghana (Weghorst and Lindberg 2013), Nigeria (Bratton 2008), Sao Tomé e Principe (Vicente 2014), Uganda (Conroy-Krutz and Logan 2012), Kenya (Kramon 2009), sub-Saharan African countries (Van de Walle 2007), post-Soviet countries (Hale 2007), Taiwan (Wang and Kurzman 2007), Thailand (Bowie 2008), South Korea (Kwon 2005), India (Chandra 2004), Italy (Chubb 1982), Lebanon (Corstange 2012), Egypt (Blaydes 2011), Turkey (Çarkoğlu and Aytaç 2014), and Jordan (Lust-Okar 2006).

threatens to undermine governance in more countries than ever before. Although elections can empower autonomous citizens and induce political representation, pervasive vote buying turns democracy's heart black and generates what Stokes (2005) referred to as "perverse accountability" that serves bosses and moneymen more than citizens (also see Kitschelt et al 2010, Hicken 2011, de la O 2015, Keefer 2007).

My argument strikes a more optimistic note. I show that modern legitimate campaigns for office severely undermine vote buying. Making vote-buying work requires that brokers target selective benefits to the voters most likely to support the machine in exchange. However, legitimate campaigns affect many voters' non-clientelist utility for the machine, converting some pre-campaign swing voters into post-campaign loyalists or opposition on whom payoffs are wasted. Campaign effects are likely hidden from brokers, making vote buying tremendously inefficient. Whereas existing theory argues that competent machines turn targeted voters into clients with near certainty, I show that the uncertainty generated by the legitimate campaigns can turn clients back into citizens. Vote buying may not ruin democracy after all.

The first section argues that the existing literature over-estimates the effects of vote selling on vote choices and election outcomes. The second section presents my argument that the legitimate campaigns undermine vote buying. I craft a simple formal model that builds on Stokes (2005) and Stokes and colleagues (2013) by drawing on probabilistic voting models (Adams and Merrill 2009) to show how uncertainty in voters' decisions due to the legitimate campaigns dramatically reduces clientelism's efficiency. The third section measures the incidence of vote selling using a list experiment embedded in the Mexico 2012 Panel Study survey. The fourth section uses a new statistical methodology to examine the influence of vote selling on vote choices (Imai, Park, and Greene 2014). This methodology recovers individual

level probabilities of vote selling from the list experiment and uses them as an explanatory variable in a model that also includes the standard variables commonly included in behavioral models of vote choice. I argue that this approach yields the first valid test of whether vote buying actually works in modern competitive democracies. The conclusion discusses implications of my findings for the quality of democracy and considers why vote buying persists despite its limited impact on voters.

Citizens into Clients: Existing Arguments about Vote Buying

Existing literature implies that the provision of selective benefits generates votes on Election Day. Work in Anthropology and Sociology often argues that voters are embedded in enveloping networks of reciprocity and coercion that compel compliance through threats of economic exclusion, harassment, and even death (Auyero 2000, Lomnitz 1988, Chubb 1982). Likely for this reason, research in these disciplines rarely documents successful transitions from "clientelism to citizenship" (Fox 1994).

Literature in Political Science recognizes that modern bosses in competitive regimes have thinner bonds with their clients, leading scholars to refer to such ties as vote buying rather than clientelism. Yet most theory does not explicitly examine the conditions leading clients to support their patrons at the polls, thus retaining the notion that benefits generate support with near certainty (Dixit and Londregan 1996, Lindbeck and Weibull 1987, Cox and McCubbins 1986). Survey researchers have generally followed suit by assuming compliance among benefits recipients (Cornelius 2004, Nazareno et al 2004, Gónzalez-Ocantos 2012, Kramon 2009, Carreras and Irepoglu 2013, Shaffer and Baker 2015, Faughnan and Zechmeister 2011, Çarkoğlu and Aytaç 2014, Carlin and Moseley 2015).

More recent formal work argues that vote buying might falter due to two organizational problems of machine politics.[3] Free from constraining traditional relations with patrons, voters in modern systems may "take the money and run." Ensuring compliance requires the credible threat of meaningful sanctions and targeting resources to voters for whom payoffs are pivotal to supporting the machine. Research on sanctions shows that both instrumental and normative mechanisms may work, implying that machines may be able to solve the problem of opportunistic defection (Stokes 2005, Finan and Schecter 2012, Lawson and Greene 2014, Kitschelt and Wilkinson 2007). The targeting problem, however, has received less attention and may be more difficult to resolve. Payoffs are unnecessary to compel support among loyalists who like the machine for non-clientelist reasons, and they are insufficient for opposition voters who will not support it even if they receive a payoff at the going rate; however, payoffs are necessary and sufficient to win mildly opposed swing voters. Thus, vote buying only works if machines target the "correct" voters (Stokes 2005).

Targeting could fail, as Stokes and colleagues (2013) argue, due to incentive incompatibility between bosses who want to target swing voters and brokers who grow their personal networks by targeting loyalists. I argue that even where incentives are aligned inside machines, targeting may fail because the legitimate campaigns force brokers to misidentify voters' types on the eve of elections.

Existing work has scarcely grappled with how brokers identify voters' types, but the clearest statement comes from Stokes who argues,

[3] Nichter (2008) argues that machines buy turnout rather than votes, but Gans-Morse, Mazzuca, and Nichter (2014) show that vote buying is always rational in equilibrium.

> Certain party–organizational structures allow parties to discern individual voters' types …familiar neighbors work as operatives for political parties. They therefore know much about an individual that shapes his partisan attachments: his job, associational membership, parents' ideological inclinations, and public statements about parties and policies…Information about individual voters' partisan *pre-dispositions* helps the machine make inferences about how individuals vote and whether they are good candidates for vote buying" (2005: 317) [emphasis added].

Zarazaga's (2014) 120 in-depth interviews also indicate that brokers use long-term markers or "predispositions" to predict voters' types. Yet Schneider (2015) shows that such predictions are rife with errors. I argue that the effects of the legitimate campaigns cause these targeting errors.

Decades of research shows that legitimate campaigns can override voters' predispositions, deeply affecting vote choices. The campaigns can prime vote-relevant variables (Bartels 2006, Petrocik 1996), persuade voters to change their attitudes on key issues (Hillygus and Shields 2008, Lazarsfeld et al 1948), or simply inform voters about the competitors' platforms (Lenz 2009). Even in the United States where strong partisan identification limits campaign effects, about 20% of voters choose a presidential candidate that is inconsistent with their pre-campaign dispositions (Lazarsfeld et al 1948: 102, Finkel 1993: 15). In new democracies, weaker partisanship (McCann and Lawson 2003, Miller and Niemi 2002) makes voters more susceptible to campaign influences. For instance, in Mexico's three fully democratic presidential elections since 2000, up to 46.3% of voters chose a candidate that was inconsistent with their pre-campaign dispositions (Greene 2015).

Campaign effects are likely hidden from brokers. Unlike fairly stable markers such as demographics and long-term partisanship that can be discovered by embedded brokers, the

legitimate campaigns typically affect less stable attitudes such as retrospective performance evaluations and policy preferences about timely issues such as the best way to fight crime. Short-term attitude change is not easily observed and there is no sense in the literature that brokers collect and analyze data that would allow them to do so (Schneider 2015, Stokes et al 2013, Szwarcberg 2015, Zarazaga 2014). Sampling frames for public opinion surveys are rarely sufficiently local to guide individual brokers. Even if brokers could gather relevant information, campaign effects often crystalize close to Election Day (Zaller 1992), so that machines – often characterized as lumbering networks of personal contacts (Calvo and Murillo 2004) that are stable over time (Zarazaga 2014) – would be unable to re-target payoffs to post-campaign swing voters quickly enough to make vote buying work.

The effects of the legitimate campaigns in competitive regimes thus create substantial uncertainty about which voters to target with selective benefits. Yet brokers are either unaware of this uncertainty or cannot act upon it, causing them to classify voters' types based on pre-campaign dispositions, regardless of when they actually distribute benefits during the campaign season. The resulting targeting errors make vote buying highly inefficient. Current literature ignores the legitimate campaigns' effects, treating vote buying in a vacuum and conjuring an image of traditional clientelism in agricultural societies where clients had little access to independent information about the competing candidates. Modern vote buying occurs in competitive regimes with legitimate campaigns that can make vote buying fail.

Vote Buying during Partisan Campaigns

A formalization helps generate predictions about how campaigns cause targeting errors and undermine vote buying. My goal is to augment Stokes' (2005) well-known model by including campaign effects. Actors include a political machine (m), understood as its national

leadership, the machine's brokers (mb), an opposition party (o), and voters $i = [1 \dots n]$. Voters value the differential pre-campaign utility between the competitors $u_i(x_m) - u_i(x_o) = u_i(x_m, x_o)$, selective benefits that they may receive exclusively from the machine $b_i = \{0, b_i\}$, and the utility gained or lost for the machine relative to the opposition due to the legitimate campaigns c_i. Thus, voter $i's$ utility is $u_i(m) = u_i(x_m, x_o) + b_i + c_i$ for the machine and $u_i(o) = u_i(x_m, x_o)$ for the opposition. Voters vote their true preferences and are risk-neutral; both parties maximize votes. The machine's objective function is $E(\%\ vote\ for\ m) = \frac{1}{n}\sum_{i=1}^{n} P[u_i(x_m, x_o) - b_i - c_i \geq 0]$.

The machine invests in campaigning γ_c and vote buying γ_b where $\gamma_c + \gamma_b = 1$. Brokers allocate selective benefits b_i to voters and, consistent with Zarazaga (2014: 35), they buy cheaper voters first and pay the minimum they believe will win each voter's support. I assume that the parties' characteristics including platform, candidates, and reputations that inform voters' measured pre-campaign utility are fixed when the machine makes its investment decision. To differentiate my argument from Stokes (2005) and Stokes and colleagues (2013), I assume that brokers resolve the problem of opportunistic defection and their incentives are aligned with the machine to win votes. Even with these assumptions, I show that vote buying can fail.

Unlike selective benefits that only affect the utility of voters who receive payoffs, the legitimate campaigns c_i affect all voters through 1) a broadcast effect μ that represents mean campaign quality with positive values advantaging the machine relative to the opposition, and 2) a stochastic effect ε_i that represents a draw from a mean zero random variable. Naturally, the campaigns affect citizens differently, implying that voters make independent draws from ε_i. After hearing the campaigns, some voters like the machine more relative to the opposition $(\varepsilon_i > 0)$ and some like it less $(\varepsilon_i < 0)$. Campaign effects are like unmeasured valence (Adams

and Merrill 2009) because competitors' characteristics are set before they know how skillfully they will campaign and if they will suffer scandals or other bad press.

In the model, the machine knows the relationship between γ_c and μ, but brokers do not know or do not act on this information. I give four justifications. First, the machine may fail to communicate its knowledge from war rooms tucked away in central party headquarters to local brokers on the front lines. Neither my interviews with brokers in Mexico nor Zarazaga's (2014) work on Argentina reveals pipelines of information flowing from above. Second, any general targeting information the machine provides brokers may be invalid because voters' reactions to the campaigns in a particular neighborhood may vary significantly from the national and district average. Third, even if brokers do receive valid targeting information, they may not act on it. Distributing (limited) resources according to the machine's counterfactual theory of campaign effects requires brokers to ignore concrete contemporaneous evidence suggesting a different strategy.[4] Finally, even if brokers do change targeting practices in anticipation of mean campaign effects, they would make huge errors as the stochastic element of the campaigns ε_i affects each voter differently.

Brokers thus use their knowledge of voters' measured pre-campaign utility to categorize citizens, paying swing voters b_i and paying loyalists and opposition zero. Because brokers target resources as if $c_i = 0$ for all i, they proceed as in Stokes (2005), categorizing voters with $u_i(x_m, x_o) < x^* = 0$ as loyal and those with $u_i(x_m, x_o) > x^*$ as non-loyalists. Non-loyalists are

[4] A good campaign ($\mu>0$) means brokers should divert resources to pre-campaign opposition voters, hoping the campaign will convert them into post-campaign swing voters. A bad campaign ($\mu<0$) means brokers should target pre-campaign loyalists, fearing the campaign will turn them against the machine.

further divided into swing voters who support the machine if they receive $b_i \geq b^* = u_i(x_m, x_o)$ and opposition voters otherwise. Machines focused on winning new votes, perhaps because they are non-incumbents, should target swing voters (Stokes 2005, Stokes et al 2013, Nichter 2008, Gans-Morse et al 2014, Albertus 2012).

If brokers knew the effects of the legitimate campaigns, they would offer each voter $b_i = u_i(x_m, x_o) + c_i$. Unaware of these effects, they instead offer $b_i = u_i(x_m, x_o)$ and thus undermine vote buying in three ways. First, as depicted in Figure 1A, voters who experience $c_i > 0$ increase their non-clientelist utility for the machine due to the legitimate campaigns and thus become cheaper to buy. Pre-campaign swing voters convert into post-campaign loyalists if they experience a sufficiently good campaign $c^* = c_i \geq u_i(x_m, x_o)$. The machine still wins these votes, but not due to vote buying.

[Figure 1 about here]

Second, pre-campaign swing voters who like the campaign but not enough to overcome their measured disutility for the machine experience $0 < c_i < c^*$ and continue as post-campaign swing voters who still require $b_i > 0$ to vote for it. Nevertheless, they too become cheaper to buy and thus brokers overpay them, leaving fewer resources to buy more votes.

Finally, if attracting voters through the legitimate campaign causes headaches for the machine, repelling them makes matters worse. Pre-campaign swing voters who experience a sufficiently bad campaign $c_i < u_i(x_m, x_o) - b_i$ convert into post-campaign opposition, as depicted in Figure 1B. Ironically, the more efficient brokers are in allocating b_i to pre-campaign swing voters, the more devastating this problem becomes. Voters paid just enough to support the machine convert into post-campaign opposition if they experience $c_i < 0$.

The legitimate campaigns thus cause the machine to win far fewer votes than it expects due to the vote buying. If $c_i = 0$ for all i as brokers believe, then the machine wins all pre-campaign swing voters, equal to $\int_{x^*}^{x^*+b^*} f[u_i(x_m, x_o)]dx$. With campaign effects, the proportion of pre-campaign swing voters it wins is as follows:

$$= \begin{cases} 0 \; if \; c_i < 0 \; (convert \; to \; opposition) \\ 0 \; if \; c_i > c^* \; (convert \; to \; loyal) \\ \left[\frac{1}{n}\sum_{i=x^*}^{x^*+b^*} \int_0^{c^*} f[u_i(x_m, x_o)] \, dx\right] \times \left[\int_{x^*}^{x^*+b^*} f[u_i(x_m, x_o)]dx\right] if \; 0 < c_i < c^* \; (continuing \; swing) \end{cases}$$

The expression for continuing swing voters includes 1) the sum of the probability that voters who are paid by brokers, and thus have measured utility in $[x^*, x^*+b^*]$, experience $0 < c_i < c^*$ multiplied by 2) the proportion of pre-campaign swing voters in the electorate. Below, I show that this quantity is much smaller than the machine's expected take if $c_i = 0$ for all i.

Before doing so, it bears asking if machines knew that the legitimate campaigns undermine vote buying, would they invest exclusively in clientelism such that $\gamma_b = 1$ and $\gamma_c = 0$? A similar puzzle confronts businesses that invest in broadcast advertising and offer targeted discounts to selected customers. Surprisingly, I have not found relevant models in the economics, marketing, and management literatures. Providing an analytic solution to this question is beyond the scope of the current paper; however, I justify the assumption that parties that buy votes also invest in legitimate campaigning on theoretical and empirical grounds. First, existing formal models layer vote buying on top of non-clientelist appeals (and do so without providing a proof of machines' investment strategies). Linbeck and Weibull (1987) and Stokes (2005) add vote buying to an underlying model of policy competition and Cox and McCubbins (1986) and Dixit and Londregan (1996) assume that machines benefit from core or loyal voters

who identify for non-clientelist reasons. The notion that machines mix across vote buying and non-clientelist campaign appeals is so ingrained that models simply assume it.

Second, the most analyzed real-world machines routinely campaign on their platforms, candidate's qualities, and reputations. For instance, Mexico's PRI long campaigned as the left-of-center inheritor of the Revolution of 1910, invested heavily in advertising, and promoted its candidates in nationwide whistle-stop tours (Greene 2007). India's BJP campaigns on Hindu Nationalism (Chandra 2004), Taiwan's KMT campaigns on reunification with China (Wang and Kurzman 2007), and even Argentina's Peronist Party, the paradigmatic case among modern machines, typically campaigns as a party of the left (Levitsky 2003). All of the political machines discussed in Kitschelt and Wilkinson's (2007) edited volume on clientelism also engage in vigorous campaigns.

Finally, data on one region – Latin America – shows that voting is not dominated by just programmatic or clientelist linkages. There is no statistically significant correlation between an aggregate cross-national measure of policy congruence among parties and voters from Baker and Greene (2015) and a measure of clientelist effort from Kitschelt and Altamirano (2013).

If machines make mixed investments, simulations based on the formalization above show that the legitimate campaigns undermine vote buying. To generate these simulations, I stipulate $\mu = \ln(\gamma_c)r$ where r represents the opposition's campaign efficiency.[5] Rising efficiency means the machine suffers a more negative mean campaign effect for a given investment. The curvilinear relationship between γ_c and μ implies that machines that do not invest in campaigning cede the airways to the opposition, permitting what Zaller (1992) called a one-sided information flow. Larger investments yield a two-sided information flow, not the machine's

[5] As efficiency for the opposition falls, the machine invests more in legitimate campaigning.

dominance. Second, I specify that voters' measured utility and the stochastic element of campaigns follow mean zero standard normal distributions. Finally, I identify which voters the machine pays and which it ignores. By assumption, brokers begin paying non-loyalists with $u_i(x_m, x_o) \geq x^*$ and stop when they exhaust their budget at x^*+b^*. Without a complicated model that is beyond the scope of this paper, I cannot provide an analytical cut-point between swing and opposition voters. (Note that Stokes (2005) does not do so either.) Instead, I assume $u_i(x_m, x_o) \sim N(x^*, \sigma)$ and place the cut-point at $\sum_{i=1}^{n} b_i \leq 2\sigma$, liberally allowing the machine to buy up to 95% of its potential clientele.

Figure 2 shows the simulation results for varying campaign efficiency. If $c_i = 0$ for all i, as existing literature assumes, then the machine wins all pre-campaign swing voters, represented by the dashed frontier line. Naturally, this proportion rises with investment in vote buying, but maximizes at 19.1% of the electorate, given the assumptions above.

[Figure 2 about here]

Adding the impact of the campaigns means that the machine wins far fewer votes than it expects, represented by the shaded black area of continuing swing voters. Many pre-campaign swing voters convert into opposition (gray shading) and some convert into loyalists (without shading). Panel B shows that the machine wins less due to vote buying as the opposition's campaign efficiency rises. Yet under the best-case scenario, the machine wins just half of the votes it expects and, for the most plausible, middling investments in vote buying, it wins 10-25% of its expected vote.

Testing my argument requires determining whether vote buying works when controlling for the effects of the legitimate campaigns on voters' choices. Despite strong arguments that payoffs produce votes for the machine, the few existing empirical tests suffer from sampling,

measurement, and inference problems. Convenience samples in most ethnographic research and experiments limits researchers' ability estimate the effects of vote buying on election outcomes (Gallego and Wantchekon 2012). Most public opinion work uses direct measures of vote selling (Stokes 2005, Stokes et al 2013, Nichter 2008, Cornelius 2004, Kramon 2009, Carreras and Irepoglu 2013, Shaffer and Baker 2015, Vicente 2014, Weghorst and Lindberg 2013, Guardado and Wantchékon 2014, Carlin and Moseley 2015) that generate severe underreporting (González-Ocantos et al 2013, Çarkoğlu and Aytaç 2014). Other studies use proxies that are distant from vote selling behavior, including changes in vote intentions (Hicken et al 2015), expert ratings of country-level clientelism (Kitschelt and Altamirano 2013), and the effects of buying brokers' support (Gingerich 2014). Most studies also present bivariate associations that likely overestimate the impact of vote selling on outcomes of interest (Nichter 2008, Stokes 2005, Stokes et al 2013). In theory, experiments offer better causal identification, but researchers cannot control the distribution of selective benefits for logistical and ethical reasons. Only Wantchékon's (2003) ambitious work comes close, but his design controlled campaign promises for public policy or patronage and pork, not actual vote buying.

In the remainder of the paper, I use a new methodology to examine whether vote buying works during hard-fought campaigns for executive office. The approach measures vote selling with a list experiment embedded in a sample survey and then uses a new statistical methodology to construct multivariate regression models that simultaneously examine who gets paid and the effects of those payoffs on political support. This methodology is suited to uncover the relative effects of vote selling and legitimate campaigns on vote choices among individuals and the electorate as a whole.

Campaigns and Vote Buying during Mexico's 2012 Presidential Election

Mexico's 2012 presidential election featured intensive media campaigns and a massive vote buying effort, making it a good case to study their relative influence on voting behavior. In the final tally, Enrique Peña Nieto of the formerly dominant PRI won with 39.2% of the vote, besting López Obrador of a leftist coalition led by his Party of the Democratic Revolution (PRD) with 32.4% and Josefina Vázquez Mota of the incumbent National Action Party (PAN) with 26%. Gabriel Quadri de la Torre of PANAL won 2.3%.

The legitimate campaigns for the presidency were legally restricted to 90 days, but many voters' choices changed in this brief period. The Mexico 2012 Panel Study shows that only 52.4% of respondents reported voting in the July 1 election for the candidate that they supported in April, 28.2% switched, and another 19.6% of initially undecided voters settled on a choice by Election Day (see Table A1 in the online appendix for details). In this process, Peña Nieto netted an additional 6.5% of the electorate, attracting 18.2% of voters and repelling 11.6%.

Did the legitimate campaigns or vote buying cause these shifts? Both influences are plausible. Mexico features intense media campaigns that deeply affected vote choices prior elections (Greene 2011, Moreno 2007). In 2012, the presidential campaigns broadcasted 5,466 hours of television advertising for an average of 62 hours each day.[6] The candidates focused on economic wellbeing and reducing violence, the two issues that voters cited as paramount.[7]

[6] http://monitoreoife.politicas.unam.mx/sitio_camp/index.html

[7] In the Mexico 2012 Panel Study, 54.5% of respondents cited violence as the most important problem and 32.3% cited economic issues.

Observers generally agree that Peña Nieto ran a good campaign and received favorable media.[8] He pledged to diminish homicides and kidnappings by 50%, reminding voters that personal security was better when the PRI held power before 2000. He also touted his performance in creating jobs and infrastructure projects as Governor of the State of Mexico. López Obrador's competent campaign cast him as a moderate, ameliorating his image as a radical outsider inherited from his prior run for the presidency. In 2012, he promised to create jobs for young people to discourage them from joining drug trafficking organizations and combat violence by making Mexico into a "republic of love". Vázquez Mota's campaign was plagued by public infighting among senior staff and botched campaign events. It was also hampered by a lukewarm attempt to differentiate her platform from the co-partisan incumbent administration that launched an ill-fated war on drugs in 2007, leading to a spike in homicides. Her lackluster campaign gave the two frontrunners opportunities to poach her initial supporters. In the language of the formal model, lower campaign efficiency by López Obrador and Vázquez Mota means that Peña Nieto's legitimate campaign should undermine vote buying by converting most voters from swing to opposition and a smaller share from swing to loyalist, as in Figure 2A.

Mexico also has a rich history of vote buying that could have affected vote choices in 2012 (Cornelius 2004, Greene 2007, Magaloni 2006). In addition to López Obrador's claims, the domestic watchdog group Alianza Cívica (2012) reported that its 500 observers covering 21 of 32 federal entities found violations of the secret ballot in 21% of polling places, principally involving the use "kiddy hawks" (non-familial children who accompanied adults into the voting

[8] Claims that Peña Nieto bought favorable Televisa coverage: http://www.theguardian.com/world/interactive/2012/jun/08/mexico-media-scandal-televisa-pena-nieto-claims.

booth, presumably to monitor their choices). Yet information from these sources may be politically charged, leading observers to deem a relatively clean election as dirty. By the same token the absence of such evidence from monitors from the Parliamentary Confederation of the Americas (COPA 2012) could encourage analysts to think of a dirty election as clean.

I provide a more valid measure by gauging vote selling with a list experiment embedded in the Mexico 2012 Panel Study (Greene et al 2012).[9] The study interviewed a nationally representative sample of ordinary citizens with a valid voter registration card in their homes in April near the start of the presidential campaigns and re-contacted the same respondents following the July 1 election (n=952 for the panel). To measure vote selling, the sample was randomly divided into treatment and control groups in April and these assignments were maintained for July re-interviews. Enumerators said: "I am going to read you a list of [3/4] activities that appear on this card and I would like you to tell me how many of these activities you have done in recent weeks. Please do not tell me which activities, just how many. The [3/4] activities are…" Then the interviewer showed a card with the three items in List A to respondents in the control group and the four items in List B to those in the treatment group.

List A (Control):

a. Watch TV news that mentions a candidate
b. Go to a campaign event
c. Talk about politics with other people

List B (Treatment):

a. Watch TV news that mentions a candidate
b. Go to a campaign event

[9] Data, questionnaires, and technical information are at https://mexicopanelstudy.mit.edu.

c. Receive a gift, favor, or access to a service in exchange for your vote

d. Talk about politics with other people

Table A2 in the online appendix shows that the treatment and control conditions were well balanced across a range of demographic and political variables.

Estimating the incidence of vote selling using the list experiment is straightforward. Because the number of non-sensitive activities that respondents reported should be equal across the two subsamples, the difference in means indicates the amount of vote selling (Kuklinski et al. 1997, Blair and Imai 2012). Table 1 shows that 6.9% of respondents sold their vote near the start of the campaign, but this value does not reach statistical significance. A whopping 21.3% sold their vote by the end of the campaigns, and this value is statistically significant (p=.0002). Both estimates dwarf the amount of vote selling uncovered by a direct question asked later in the questionnaire that measured 2.8% in April and 5.8% in July. Unsurprisingly, the standard approach demonstrates substantial response bias (González-Ocantos et al 2012).

[Table 1 about here]

List experiments are not immune to measurement error (Blair and Imai 2012, Corstange 2009, Glynn 2013), but recent work shows that they perform very well (Kiewiet de Jonge and Nickerson 2014). Three elements could cause an under-estimate in the incidence of vote selling, making the election seem cleaner than it was. First, respondents could have interpreted the word "exchange" to mean switching candidates. Yet the lower bar in the direct question that asked about "receiving" a benefit still elicited far fewer affirmative responses. Second, reading the items aloud could have sparked social desirability bias; however, there was no statistically significant increase in the number of affirmed items when another adult or survey supervisor was present. Finally, clever respondents in the treatment group might realize that affirming all items

would identify them as vote sellers, yet the data pass Blair and Imai's (2012) test for design effects (Imai, Park, and Greene 2014: 8).[10] Conversely, the list experiment could have over-estimated vote selling, implying that the election was dirtier than it actually was. Yet in asking whether respondents "exchanged" their vote for a benefit, the approach encouraged them to ignore gifts they deemed not worth a vote.

Although the list experiment reveals that more than a fifth of the electorate was involved in vote selling in 2012, this does not mean that all 10.9 million vote choices were determined by these exchanges. People are notoriously bad at estimating the causes of their vote choices (Nisbett and Wilson 1977), which is why analysts construct inferential models rather than using open-ended questions. In Mexico's 2012 presidential elections, vote selling may have generated support for Peña Nieto. Alternatively, the legitimate campaigns could have converted some pre-campaign swing voters into post-campaign loyalists who would have supported the machine without receiving payoffs and others into opposition who were paid too little to support the machine. Before crafting models to uncover the effects of vote selling on vote choices, I show that Peña Nieto was the main buyer.

Who Buys Votes?

Competitive elections potentially allow multiple parties to buy votes. Unfortunately, the list experiment did not ask respondents which party bought their vote; yet, three elements strongly indicate that the PRI was the main vote buyer in the 2012 presidential election.

[10] Respondents who interviewers perceived as nervous when answering the list experiment registered *higher* levels of vote selling, further implying that the list experiment diminished response bias.

First, 72% of respondents to the direct question said they received a payoff from the PRI, 22% from the PAN, and 6.3% from the PRD. This question clearly underestimates vote selling, but there is no reason to think bias varies across parties. Evidence from Alianza Cívica (2012) is remarkably similar: 71% of violations it observed favored Peña Nieto, 17% benefited Vázquez Mota, and 9% advantaged López Obrador. These proportions mirror Stokes and colleagues' (2013) estimate of vote buying by the Peronist Party and its competitors, leading these authors refer to Argentina as a single-machine environment.

Second, the PRI dominated among partisan poll watchers who are charged with monitoring voter behavior and work as brokers before Election Day (author interviews 2009-2012). Nationally, the PRI's representatives covered 97.3% of precincts whereas the PAN covered 80.8%, and the PRD covered 60.3%.[11]

Finally, vote sellers' choices imply that the PRI engaged in more vote buying than its opponents. Using responses to the list experiment, the first column of Table 2 shows that citizens who intended to vote for Vázquez Mota in April but voted for Peña Nieto in July had a 82.1% probability of vote selling; PRI identified voters that were initially undecided but voted for Peña Nieto had a 95% probability of vote selling; and initial Peña Nieto supporters who stuck with him had a 17.8% probability of vote selling.

[Table 2 about here]

Yet vote-buying attempts did not always succeed in producing votes for the machine. The first row in Table 2 shows that some initial Peña Nieto supporters who voted for another candidate also had a high probability of vote selling. The main alternative argument that López Obrador and Vázquez Mota bought votes from Peña Nieto is less convincing for four reasons.

[11] Data generously supplied by Mariano Sánchez Talanquer and IFE.

First, the probability that these voters were paid off rises with the presence of PRI-affiliated poll watchers but not with poll watchers from the other parties, implying that payoffs came from the Peña Nieto camp. Second, Table 2 shows that neither trailing candidate won votes from each other or retained their own initial supporters with selective benefits, implying that they may not have paid these voters. Third, the direct measure shows that some voters who abandoned Peña Nieto were paid by the PRI but none was paid by the PAN or PRD. Finally, voters who switched away from Peña Nieto started the campaigns more cross-pressured on non-clientelist variables than those who stuck with him, implying that they may have switched for non-clientelist reasons.[12]

The data in Table 2 also suggest which voters were targeted. Initial Peña Nieto and Vázquez Mota supporters as well as initially undecided voters had more than a 25% probability of vote selling whereas initial López Obrador supporters had only a 2% probability. Vázquez Mota's troubled campaign could have encouraged the eventual winner to target her initial supporters. Thus, if vote buying affected vote choices, votes should flow to Peña Nieto from Vázquez Mota but not from López Obrador.

Vote Buying During Partisan Campaigns: How Much Do Payoffs Matter?

In this section, I test my argument that vote buying flounders because the legitimate campaigns force brokers to target many of the wrong voters with selective benefits. This claim runs counter to the standard assumption that payoffs overwhelm voters' other partisan attachments. It also differs from arguments that vote buying can fail because machines cannot

[12] The incumbent PAN could have used anti-poverty programs for clientelism; however, Seguro Popular and Oportunidades recipients were no more likely to sell their votes than others.

credibly threaten to monitor voters' choices or because brokers target loyalists on purpose, against the machine's wishes.

To estimate the effects of vote selling on vote choices, I leverage the list experiment described above and use a new statistical methodology developed by Imai, Park, and Greene (2014).[13] The approach employs a general maximum likelihood estimator to recover the probability that individual survey respondents sold their vote and then uses those estimates as an explanatory variable in a regression model of vote choice that also controls for the variables commonly included in voting behavior models. It accomplishes these tasks in a single step, improving on the statistical efficiency of two-step estimators and greatly reducing bias in the coefficients, especially regarding the effects of the sensitive item on the outcome of interest.

The method produces three sets of regression coefficients, one for predicting the number of affirmed list items for the control group, one for predicting vote selling in the treatment group, and one for predicting vote choice for all respondents. Models include the standard explanatory variables used in vote choice models in Mexico and elsewhere: demographics, partisanship, sociotropic economic evaluations, and an index of assessments of the candidates' competence in managing the economy, fighting crime, reducing poverty, and diminishing government corruption.[14] I also include evaluations of the outgoing Calderón Administration's (PAN) performance in combatting crime. I leverage the panel data by including lagged vote intention and, as described below, variables that are manipulated by the legitimate campaigns. To further help predict benefits' targeting, I include voters' belief in the secret ballot and the count of PRI-affiliated poll watchers in each respondent's precinct.

[13] R code is available at https://cran.r-project.org/web/packages/list/.

[14] Upon publication, the R script will be posted on the author's website.

The main outcome of interest is vote choice. I excluded abstainers, as measured by the absence of a legally mandated mark made by poll workers on registration cards. The findings below thus refer to vote choices, not the potential effects of selective benefits on turnout (Nichter 2008).[15]

[Table 3 about here]

Table 3 presents the outcome vote choice models with Peña Nieto as the excluded category so that negative coefficients indicate support for the eventual winner. The control items and vote selling models appear in Table A3 in the online appendix. The estimates come from five datasets with multiply imputed explanatory variables to account for missingness; Rubin's "rules" (1987) were used to combine estimates of the coefficients and standard errors. I show results for two sets of models. The first set is pre-campaign dispositions models that include all the variables noted above measured in April plus the likelihood of vote selling between April and July as recovered from the list experiment. These models test the notion that voters begin the campaigns with a set of pre-existing attitudes and then some sell their votes, plausibly leading to support for Peña Nieto.

To ease interpretation, Figure 3A shows the partial effect of vote selling on vote choices using the pre-campaign dispositions model in Table 3. Citizens who sold their votes were 23.2% more likely to vote for Peña Nieto over Vázquez Mota ($p<.05$). At the same time, vote selling

[15] To correct for bandwagoning that afflicted nearly all surveys of Mexico's 2012 elections (TRIFE 2012), I recoded 38 cases where respondents' feeling thermometer ratings of the candidates did not match reported vote choice. Interviews of these respondents were more likely to have occurred during the period of greatest bandwagoning. See the online appendix for details. I also excluded the 10 respondents who voted for Quadri.

did not hurt López Obrador, a finding that is consistent with Peña Nieto's targeting strategy detailed above. These findings seem to support the existing literature's claim that vote buying works. In fact, vote buying appears to work so well that it overwhelms targeted voters' non-clientelist pre-campaign dispositions. Table 3 shows that few of the standard influences on vote choice reach statistical significance when the vote selling variable is included. When vote selling is excluded, many more of these standard influences are statistically significant (see Table A4 in the online appendix).

[Figure 3 about here]

Nevertheless, the pre-campaign dispositions models ignore the effects of the legitimate campaigns and thus dramatically overestimate the impact of vote buying. The post-campaign dispositions models in Table 3 incorporate voters' July retrospective performance evaluations on crime and sociotropic economic evaluations; that is, variables that the legitimate campaigns sought to manipulate. Such variables are also commonly included in models of campaign influence (Bartels 2006, Finkel 1993). The effect of these modest additions is substantial: the coefficient on vote selling shown in Table 3 decreases by about 40% and loses statistical significance. The findings are shown graphically in Figure 3B. Vote selling raises support for Peña Nieto over Vázquez Mota by 11.5%, just half the impact it had in the pre-campaign dispositions model, but now it fails to reach statistical significance. Similarly, vote selling does not increase support over López Obrador. Rather, voters' responses to the legitimate campaigns overwhelm the apparent effects of vote buying.

This is not a classic "null" finding. The initial strong effect of vote selling in the pre-campaign model with many covariates washes out once changes in attitudes due to the campaigns are introduced. These findings probably do not result from methodological artifacts.

First, they are not likely due to multicollinearity because post-campaign attitudes are not associated with vote selling. This implies that brokers did not take voters' changing dispositions into account when buying votes. Indeed, whereas campaign-induced changes in performance and economic evaluations are associated with vote choices, Table A3 in the online appendix show that they are not associated with benefits' targeting. As I develop in detail in the next section, this implies that brokers failed to distribute payoffs based on voters' post-campaign types, identifying swing voters with their pre-campaign profiles only.

Second, the results are also not likely an artifact of endogeneity. Paid voters may have voted for Peña Nieto because they received benefits and then rationalized their choice by bringing their attitudes in line. If so, then paid voters should change their non-clienetlist attitudes in favor of Peña Nieto more than those who were not paid. Table A6 in the online appendix shows that this is not the case.

Finally, the results are not likely due to measurement error. Because the list experiment does not determine which candidate bought each respondent's vote, the regression models likely contain some countervailing effects that reduce the impact of vote selling on support for Peña Nieto. However, note that both the pre- and post-campaign dispositions models are equally affected by this error, yet the pre-election models shows substantial effects of vote selling whereas the post-election models shows no effects.

Despite decades of research that either assumes that vote buying works or provides tests of questionable validity, vote selling by one of the world's most accomplished machines during an election awash in vote buying attempts does not affect vote choices when its incidence is well measured and its impact is assessed as part of a well-specified model. Why does vote buying fail?

How Campaigns Undermine Vote Buying

I argue that vote buying falters because brokers use flawed information to determine which voters to target with selective benefits. Specifically, they identify pre-campaign swing voters and ignore the subsequent effects of the legitimate campaigns that convert some into post-campaign loyalists for whom payoffs are unnecessary and some (more) into post-campaign opposition for whom payoffs are insufficient to support the machine.

My argument contrasts with Stokes and colleagues' (2013) claim that brokers target loyalists to grow their personal networks against the machine's directive to target swing voters. Such targeting could account for my findings if paid loyalists more closely aligned their attitudes during the campaigns with their pre-existing support for Peña Nieto.

To test for my proposed mechanism and Stokes' alternative, I examine the likelihood of vote selling among voters that brokers identify as pre-campaign loyalists. Recovering voter types requires modeling how brokers predict vote choice. As noted above, Stokes (2005) and Zarazaga (2014) as well as copious work in Anthropology and Sociology suggest that brokers use pre-campaign dispositions, including demographics and partisanship. I incline the results against my hypothesis by also adding initial vote intentions that embedded brokers could plausibly discover. Thus, the "naïve broker" model mirrors the pre-campaign dispositions model in Table 3 but excludes vote buying. I then use this model to predict voters' probability of choosing each candidate. I count voters as loyal to Peña Nieto if they have more than a 50% probability of voting for him and non-loyal otherwise. For a subsequent test, I divide non-loyalists into opposition voters who have a 50% or greater chance of voting against Peña Nieto

and swing voters who have less than a 50% chance of supporting any candidate.[16] For each voter type, I then examine the probability of vote selling using the list experiment.

The first column of Table 4 shows that pre-campaign loyalists had a 26.2% probability of selling their votes whereas non-loyalists were somewhat more likely at 36.1%. If the null hypothesis is that brokers should not target any loyalists, as Stokes (2005) theorized, then this represents "over-targeting." However, in support of their argument about over-targeting, Stokes and colleagues (2013) show that Argentina's Peronist Party targeted twice as many loyalists as non-loyalists. By comparison, Peña Nieto's campaign did what machines should do by targeting more non-loyalists. Mexico's brokers are either well controlled by the machine or they spontaneously target the voters that they believe will make vote-buying work.

[Table 4 about here]

Although brokers correctly target pre-campaign swing voters, I argue that the legitimate campaigns convert many of these voters into post-campaign loyalists or opposition. To measure voter types after the legitimate campaigns but absent receiving a payoff, I create a "knowledgeable broker" model that mirrors the post-campaign dispositions model in Table 3 but excludes vote buying. This model thus shows which voters brokers should have targeted if they intuited the effects of the legitimate campaigns.

The results in Table 4 support my argument: post-campaign loyalists had a greater probability (30.4%) of selling their votes than non-loyalists (27.8%). Dividing non-loyalists into swing and opposition voters makes the findings starker. Machines should buy the support of

[16] Stokes and colleagues (2013) define loyalists using partisanship, but in Mexico's 2012 election, April partisanship predicts just 37% of July votes.

post-campaign swing voters, yet this key group is the least likely to have sold its vote at just 11.4% probability, and this value is not statistically significant.

I argue that this pattern of payoffs occurs because the legitimate campaigns push many pre-campaign swing voters to become loyalists or opposition by Election Day. To bring this point home, Table 5 shows the transitions from pre- to post-campaign voter types. Most voters that naïve brokers would identify as pre-campaign loyalists or opposition continue as their respective types by the end of the campaigns; however, most pre-campaign swing voters convert: 7.7% of the electorate converted from swing to loyalist, 13.4% converted from swing to opposition, and just 2.4% continued as swing voters. The Peña Nieto campaign thus targeted many voters that subsequently became bad clients. Moreover, conversion dynamics correspond closely to those predicted by the formal model and depicted in Figure 2A: despite Peña Nieto's good campaign and his rivals' low level of efficiency in hitting back against the PRI's vote buying strategy, the legitimate campaigns converted more voters into opposition than loyalists.

[Table 5 about here]

The net benefit of vote buying to Peña Nieto is dismal. The machine entered into clientelist exchanges with an estimated 21.2% of the electorate, only to have most of them convert into post-campaign loyalists for whom a payoff is unnecessary or opposition for whom a payoff is insufficient. The 2.4% of the electorate that continued as swing voters could have been successfully bought, but Table 4 shows that there was a low and statistically insignificant probability that resources made it into their pockets. Thus, as far as the statistical models can discern, Peña Nieto likely did not win any votes due to vote buying. Despite the machine's best efforts, the legitimate campaigns made vote buying fail.

Conclusion: Clients into Citizens

Vote buying is the bane of democracy. Where political machines buy their way to elected office, the delegation of power from voters to politicians is inverted and mandates are invalidated, gutting the core notion that sustains representative democracy. Particularly effective machines can also monopolize public power for long periods of time, discourage clean politicians from standing for office, and diminish the provision of public goods. Existing literature suggests that these normatively bad outcomes occur because machines are expert in turning citizens into clients. But most research simply assumes that vote buying works. The few empirical contributions are either descriptive or offer tests of voter behavior based on measures of vote selling known to be severely biased and anemic associations between vote selling and support for the machine that isolate clientelist exchanges from the surrounding campaigns.

Using a list experiment to improve the measure of vote selling and a new methodology to embed vote selling in a multivariate regression model of vote choice that exploits panel data during a campaign season, my findings are more robust and more optimistic. Vote buying can fail not because machines are staffed by bumblers or because they fail to overcome agency problems between bosses and brokers, but because brokers cannot detect the hidden effects of the legitimate campaigns on voters' non-clientelist attitudes. As a result, vote buying may not undermine democracy as significantly as previously thought and vote-buying attempts look much more like other non-clientelist forms of distributive politics.

Recent vote buying literature has not fully come to terms with the dynamics of contemporary clientelism. Although Stokes' (2005) work represents a major advance by endowing voters with the possibility of taking the money but voting their true preference, she concludes that competent machines can either violate the secret ballot or dupe voters into believing they can. In that work, modern, mostly urban voters appear much like their 19th

century rural counterparts: once the machine invites them to participate in a clientelist exchange they quickly lose their independence and become captured clients. Yet, unlike in ancién regime rural settings, campaigns in modern competitive regimes endow voters with many independent sources of political information. It is this information that liberates citizens and transforms vote buying from an iron link between patron and client to one influence on vote choice among many. In this view, voters may be swayed not by selective benefits but by campaign communications that help them weigh the prospective benefits of casting a vote for the machine or an alternative.[17] Rather than captive clients, many voters behave as independent citizens.

Despite this more optimistic view, differences in the impact of campaigns can generate important variation across voters and countries, and over time. To date, analysts have argued that these differences owe to economic circumstances. For instance, more affluent voters are thought to resist vote selling because the marginal utility of selective benefits declines as wealth rises. But observed differences might also owe to media consumption habits. Urban voters are more likely linked to modern politics through a saturated media environment and thus have more tools to resist clientelism whereas rural voters might be more easily enmeshed in machine politics precisely because they live in settings with few independent media sources or are unable to process the partisan content of campaign communications.

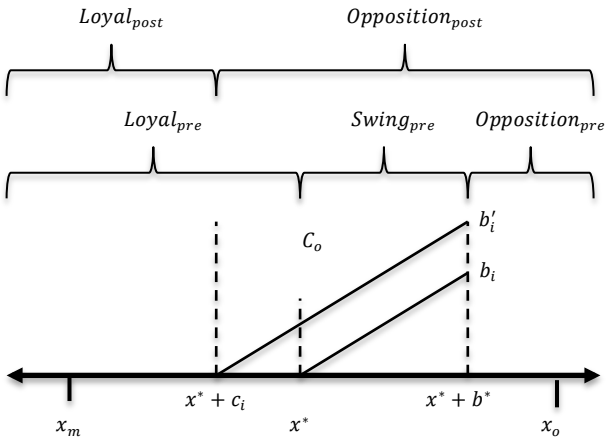
The same logic may hold across countries and over time. Current theory suggests that vote buying declines with gains in socio-economic modernization but it has not specified the mechanisms that govern this relationship. Across Latin American countries, the number of

[17] My findings are consistent with Chong et al. (2015) who shows that corruption information about incumbents drives the cost of vote buying up, possibly because non-clientelist utility for the machine falls.

televisions per capita and GDP per capita are highly correlated and each series correlates to the same degree with Faughen and Zechmeister's (2010) cross-national (direct) measure of vote selling. Clientelism may erode as economies modernize not only because the marginal cost of vote buying rises but because the marginal cost of campaigning decreases with more and more citizens linked to broadcast media.

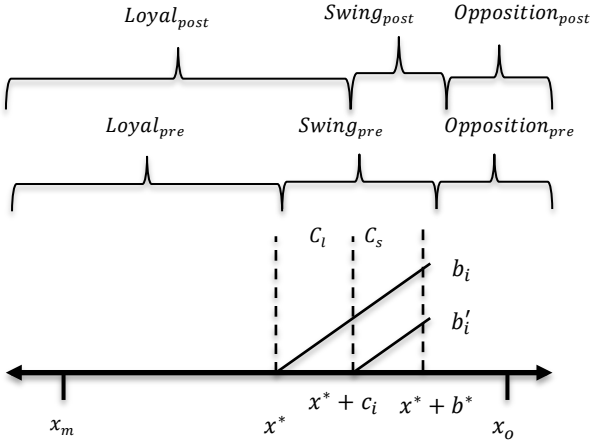
The findings also have implications for how analysts understand parties. Kitschelt (2000) argued that clientelist and programmatic parties represent distinct ideal types because they involve different organizational forms. Yet the most notorious machines also invest heavily in legitimate campaigning. Clientelism and campaigning may co-exist in part because machines cannot disentangle the relative effects of the two strategies. Good campaigns may make bosses believe that vote buying works, even if it does not, and bad campaigns may make them think that vote buying fails, even where it works. Such attribution errors can cause the machine to inefficiently allocate resources between clientelism and campaigns, and may make vote buying persist without reason. Yet if the legitimate campaigns do undermine vote buying, as I have argued, then public policy could help machines reach a different conclusion by lowering the costs of modern campaigns.

Figure 1A. Effects of the Legitimate Campaigns when $c_i < 0$



Note: Voter cost increases from b_i to b_i'

Figure 1B. Effects of the Legitimate Campaigns when $c_i > 0$

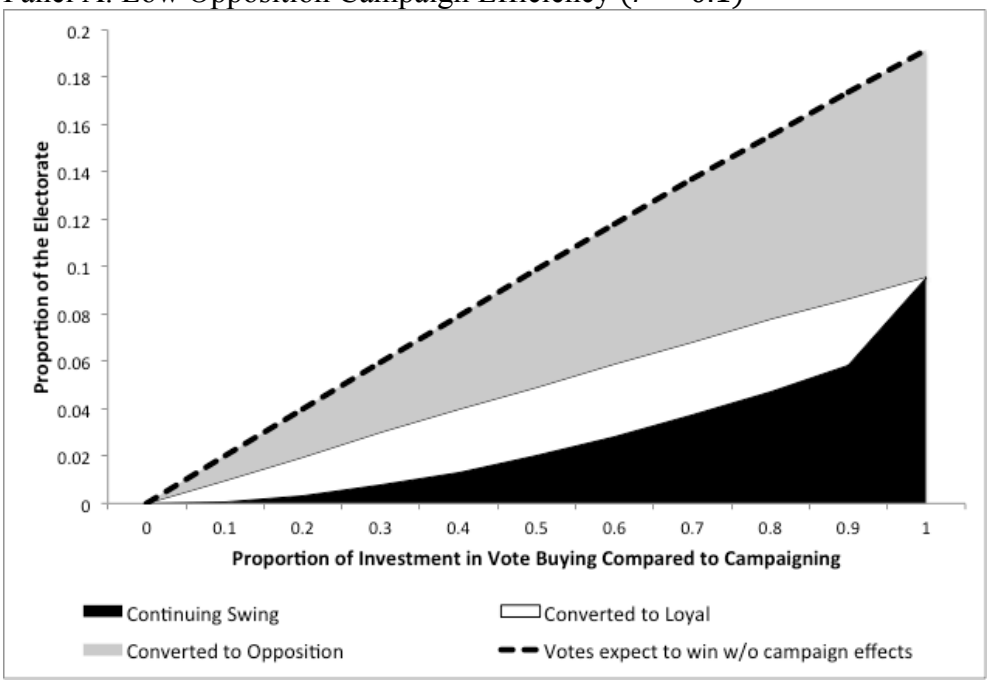


Note: Voter cost decreases from b_i to b_i'

$b_i' = b_i - c_i$
$C_l = converted\ to\ loyalist$
$C_s = continuing\ swing\ voter$
$C_o = converted\ to\ opposition$

Figure 2. Simulation of the Machine's Expected and Actual Vote Share Won due to Vote Buying

Panel A. Low Opposition Campaign Efficiency ($r = 0.1$)



Panel B. High Opposition Campaign Efficiency ($r = 1$)

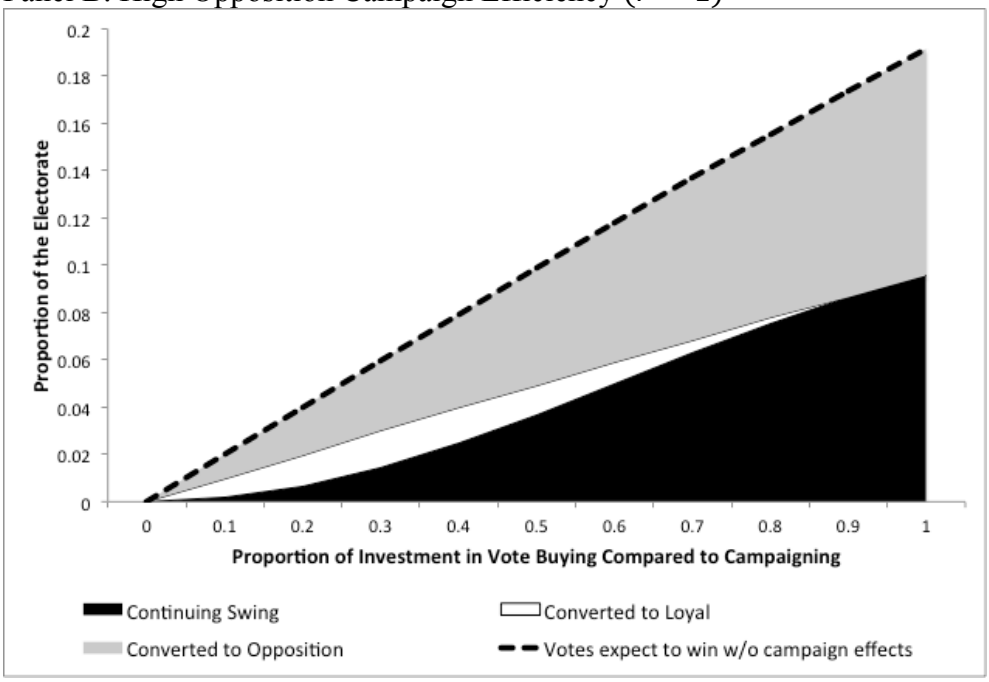


Figure 3A. Effects of Vote Selling using *Pre*-campaign Dispositions

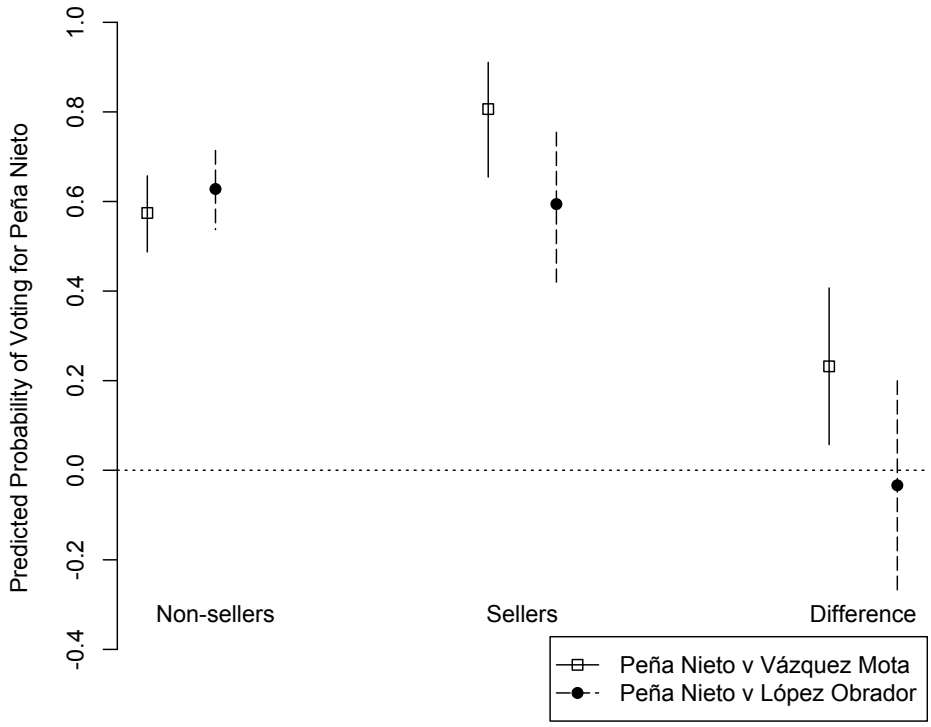


Figure 3B. Effects of Vote Selling using *Post*-campaign Dispositions

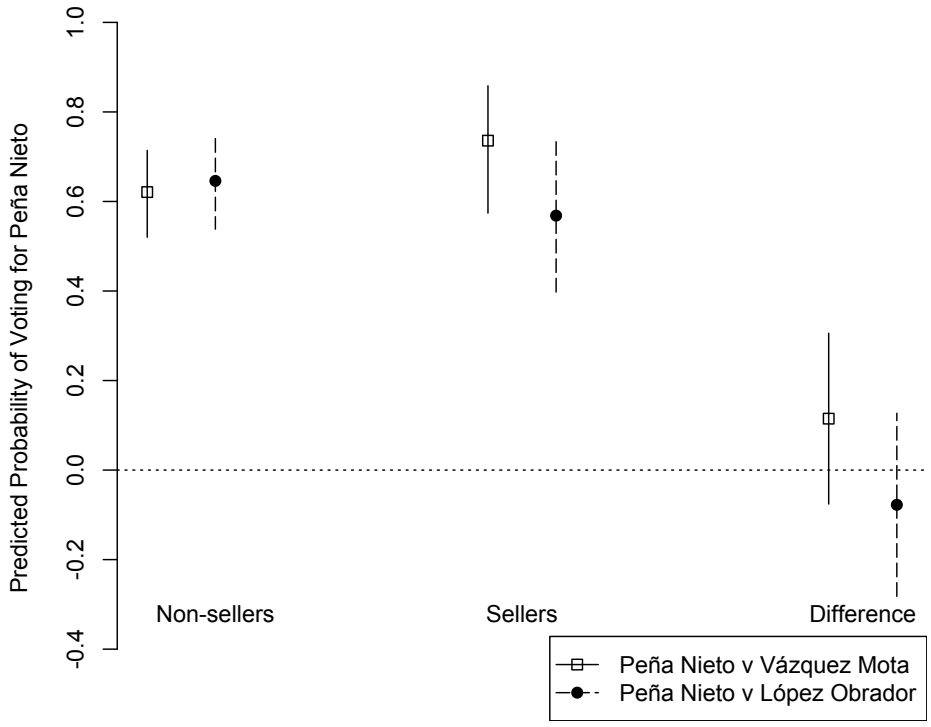


Table 1. Estimated Percent of the Electorate that Sold its Vote

Item count	**List Experiment**				**Direct Measure**	
	April 2012		July 2012		April 2012	July 2012
	Control	Treatment	Control	Treatment		
0	12.1	14.1	6.3	6.3		
1	52.2	47.4	45.9	38.2		
2	26.7	27.8	33.9	33.6		
3	9.0	6.8	13.9	16.3		
4		4.0		5.6		
N	446	454	460	461	915	513
Vote selling estimate	6.7% (p=.12)		21.4%*** (p=.0002)		2.5%	5.2%

Note: Panel respondents only. * p<.1, ** p<.05, *** p<.01

Table 2. Probability of Vote-selling by Group

April vote intention	**July Vote choice**				All April supporters
	Peña Nieto	López Obrador	Vázquez Mota	No response/ Didn't vote	
Peña Nieto	17.8*	43.2*	73.1***	--	25.3***
López Obrador	0	--	--	--	2.0
Vázquez Mota	82.1***	--	--	77.8**	25.1**
Other	--	--	--	--	--
Undecided	13.7	36.0	--	58.8**	30.0***
Identifiers only	95.0**	--	--	--	52.7*

* p<.1, ** p<.05, *** p<.01. Cells report unpaired samples t-tests between treatment and control groups in the list experiment. Cells with 10 or fewer respondents in the treatment group are counted as no effect. Vote selling measured with the July wave; party identification measured with the April wave. No response / didn't vote in July includes spoiled and blank ballots and non-votes; undecided in April includes these categories and undecided.

Table 3. Vote Choice Model

Variable	Pre-campaign dispositions						Post-campaign dispositions					
	Vázquez Mota vs. Peña Nieto			López Obrador vs. Peña Nieto			Vázquez Mota vs. Peña Nieto			López Obrador vs. Peña Nieto		
	Coef	SE		Coef	SE		Coef	SE		Coef	SE	
Vote selling, April-July	-1.479	0.678	**	0.164	0.644		-0.950	1.268		0.404	0.734	
Peña vote intention, April	-0.693	0.400	*	-0.531	0.309	*	-0.615	0.383	*	-0.459	0.389	
Vázquez vote intention, April	1.052	0.456	**	-0.791	0.504	*	1.083	0.575	*	-0.915	0.571	*
López vote intention, April	-0.689	0.529		0.348	0.441		-0.505	0.541		0.489	0.517	
Female	0.006	0.284		-0.358	0.250		0.129	0.307		-0.432	0.260	*
Age	0.010	0.011		-0.007	0.009		0.007	0.014		-0.007	0.010	
Education	-0.060	0.063		0.036	0.059		-0.072	0.064		0.041	0.064	
PRI ID, April	0.494	0.473		-0.198	0.368		0.262	0.768		-0.245	0.405	
PAN ID, April	0.273	0.395		0.405	0.419		0.539	0.391		0.577	0.442	
PRD ID, April	-0.012	0.576		1.067	0.378	***	0.181	0.570		1.046	0.380	***
Peña competence, April	-0.131	0.037	***	-0.101	0.029	***	-0.109	0.051	**	-0.101	0.030	***
Vázquez competence, April	0.037	0.037		0.021	0.037	***	0.052	0.038		0.031	0.042	
López competence, April	0.018	0.034		0.091	0.031		0.000	0.037		0.094	0.032	***
Pro-Peña poll watchers	-0.009	0.009		-0.021	0.011		-0.008	0.011		-0.020	0.011	*
Belief in secret ballot	-0.138	0.165		0.062	0.143		-0.218	0.155		0.064	0.147	
Sociotropic evals, April	0.247	0.140	*	0.097	0.122		0.109	0.159		0.162	0.128	
Retro crime evals, April	-0.103	0.186		-0.214	0.123	*	-0.076	0.174		-0.193	0.132	
Sociotropic evals, July							0.344	0.152	**	-0.326	0.158	**
Retro crime evals, July							0.440	0.219	*	-0.032	0.146	
Intercept	1.024	1.126		0.307	1.098		-1.368	1.522		0.726	1.275	

Peña Nieto is the excluded category. N=501 for Vázquez Mota vs. Peña Nieto and N=526 for López Obrador Peña Nieto. Results are from five multiply imputed datasets. Vote choice models are estimated jointly with the control items and vote selling models in Table A3 in the online appendix. Negative values on vote-selling indicate support for Peña Nieto.

Table 4. Probability of Payoff by Voter Type

Voter Type	Variables used to Identify Voter Type	
	Pre-Campaign Dispositions	Post-Campaign Dispositions
Loyal to Peña Nieto	26.2***	**30.4*** **
Not Loyal	**36.1** **	27.8**
Swing	20.7**	11.4
Opposition	15.4*	16.2**

*** p<.01**,** ** p<.05, * p<.1

Table 5. Voter Types at the Start and End of the Campaigns

Pre-Campaign Dispositions	**Post-Campaign Dispositions**			
	Loyal	Swing	Opposition	Total
Loyal	28.3	1.3	7.0	36.6
Swing	**7.7**	**2.4**	**13.4**	23.5
Opposition	6.6	2.6	30.7	39.9
Total	42.6	6.3	51.1	100.0

Entries are percent of the electorate.

References

Adams, James, and Samuel Merrill III (2009) "Policy-seeking Parties in a Parliamentary Democracy with Proportional Representation: A Valence-uncertainty Model" *British Journal of Political Science* 39, 3: 539-558.

Alianza Civica (2012) *Boletín de Prensa, 3 julio*. Accessed at http://www.alianzacivica.org.mx/archivos/pub/9557Informe%203%20de%20julio%20.pdf

Auyero, Javier (2000) "The Logic of Clientelism in Argentina: An Ethnographic Account" *Latin American Research Review* 36, 1: 55-81.

Bartels, Larry (2006) "Priming and Persuasion in Presidential Campaigns" in H. Brady and R. Johnston, eds., *Capturing Campaign Effects*. Ann Arbor: University of Michigan Press, 78–112.

Blair, Graeme, and Kosuke Imai (2012) "Statistical Analysis of List Experiments" *Political Analysis* 20, 1: 47–77.

Blaydes, Lisa (2011) *Elections and Distributive Politics in Mubarak's Egypt*. Cambridge: Cambridge University Press.

Bratton, Michael (2008) "Vote Buying and Violence in Nigerian Elections" *Electoral Studies* 27: 621-632.

Bowie, Katherine (2008) "Vote buying and village outrage in an election in northern Thailand" *Journal of Asian Studies* 67, 2: 469-511.

Calvo, Ernesto and María Victoria Murillo (2004) "Who Delivers? Partisan Clients in the Argentine Electoral Market" *American Journal of Political Science* 48, 4:742-757.

Carlin, Ryan and Mason Moseley (2015) "Good Democrats, Bad Targets: Democratic Values and Clientelistic Vote Buying" *The Journal of Politics* 77, 1: 14-26.

Çarkoğlu, Ali and Erdem Aytaç (2014) "Who Gets Targeted for Vote-Buying? Evidence from an Augmented List Experiment in Turkey" *European Political Science Review*. DOI: 10.1017/S1755773914000320.

Carreras, Miguel and Yasemin Irepoglu (2013) "Trust in elections, vote buying, and turnout in Latin America" *Electoral Studies* 32, 4: 609-619,

Chandra, Kanchan (2004) *Why Ethnic Parties Succeed*. Cambridge: Cambridge University Press.

Alberto Chong, Ana de La O, Dean Karlan and Leonard Wantchekon (2015) "Does Corruption Information Inspire the Fight or Quash the Hope? A Field Experiment in Mexico on Voter Turnout, Choice, and Party Identification" *Journal of Politics* 77, 1: 55-71.

Chubb, Judith (1982) *Patronage, Power, and Poverty in Southern Italy.* Cambridge: Cambridge University Press.

Conroy-Krutz, Jeffrey, and Carolyn Logan (2012) "Museveni and the 2011 Ugandan election: Did the money matter?" *Journal of Modern African Studies* 50, 4: 625-655.

Cornelius, Wayne (2004) "Mobilized Voting in the 2000 Elections: The Changing Efficacy of Vote Buying and Coercion in Mexican Electoral Politics" in J. Domínguez and C. Lawson, eds., *Mexico's Pivotal Democratic Election*. Stanford: Stanford University Press, 47-65.

Corstange, Daniel (2009) "Sensitive Questions, Truthful Answers? Modeling the List Experiment with LISTIT" *Political Analysis* 17, 1: 45-63.

Corstange, Daniel (2012) "Vote Trafficking in Lebanon" *International Journal of Middle East Studies* 44, 3: 483-505.

Cox, Gary and Matthew McCubbins (1986) “Electoral Politics as a Redistributive Game” *Journal of Politics* 48, 2: 370-389.

De la O, Ana (2015) “How Corruption Breeds Clientelism" in in J. Domínguez, K. Greene, C. Lawson, and A. Moreno (eds.) *Mexico’s Evolving Democracy*. Baltimore: The Johns Hopkins University Press.

Dixit, Avinash, and John Londregan (1996) “The Determinants of Success of Special Interests in Redistributive Politics.” *Journal of Politics* 58 (November): 1132–1155.

Faughnan, Brian and Elizabeth Zechmeister (2011) “Vote Buying in the Americas” *Americas Barometer Insights* 57, Latin American Public Opinion Project, Vanderbilt University.

Finan, Federico and Laura Schechter (2012) “Vote Buying and Reciprocity” *Econometrica* 80, 2: 863–881.

Finkel, Steven (1993) “Reexamining the ‘Minimal Effects’ Model in Recent Presidential Campaigns.” *Journal of Politics* 55: 1–21.

Fox, Jonathan (1994) “The Difficult Transition from Clientelism to Citizenship: Lessons from Mexico” *World Politics* 46: 151-84.

Gallego, Jorge and Leonard Wantchekon (2012) “Experiments on Clientelism and Vote Buying” in D. Serra and L. Wantchekon, eds. *New Advances in Experimental Research on Corruption*. London: Emerald, pp. 177-212.

Gans-Morse, Jordan, Sebastián Mazzuca, and Simeon Nichter (2014) “Varieties of Clientelism: Machine Politics during Elections” *American Journal of Political Science* 58, 2: 415–432.

Gingerich, Daniel (2014) "Brokered Politics in Brazil: An Empirical Analysis" *Quarterly Journal of Political Science* 9, 3: 269-300.

Glynn, Adam (2013) "What Can We Learn with Statistical Truth Serum? Design and Analysis of the List Experiment"

Gonzalez-Ocantos, Ezequiel, Chad Kiewiet de Jonge, Carlos Meléndez, Javier Osorio, and David Nickerson (2012) "Vote Buying and Social Desirability Bias: Experimental Evidence from Nicaragua" *American Journal of Political Science* 56, 1: 202-17.

Gosnell, Harold (1937) *Machine Politics: The Chicago Model*. Chicago: University of Chicago Press.

Greene, Kenneth F. (2007) *Why Dominant Parties Lose: Mexico's Democratization in Comparative Perspective*. New York: Cambridge University Press.

Greene, Kenneth F. (2011) "Campaign Persuasion and Nascent Partisanship in Mexico's New Democracy" *American Journal of Political Science* 55, 2 (April): 398–416.

Greene, Kenneth F. (2015) "Campaign Effects since Mexico's Democratization" in J. Domínguez, K. Greene, C. Lawson, and A. Moreno (eds.) *Mexico's Evolving Democracy*. Baltimore: The Johns Hopkins University Press, pp. 128-152.

Greene, Kenneth F., Jorge Domínguez, Alejandro Moreno, and Chappell Lawson (2012) *The Mexico 2012 Panel Study.*

Guardado, Jenny and Leonard Wantchékon (2014) "Do Electoral Handouts Affect Voting Behavior" Manuscript, Princeton University, March 3.

Hagopian, Frances (1996) *Traditional Politics and Regime Change in Brazil*. New York: Cambridge University Press.

Hale, Henry (2007) "Correlates of clientelism: political economy, politicized ethnicity, and post-communist transition" in H. Kitschelt and S. Wilkinson, eds. *Patrons, Clients and Policies*. Cambridge: Cambridge University Press, 227-250.

Hicken, Allen "Clientelism" *Annual Review of Political Science* 14: 289-310.

Hicken, Allen, Stephen Leider, Nico Ravanilla, Dean Yang (2015) Measuring Vote-Selling: Field Evidence from the Philippines" University of Michigan, manuscript.

Hillygus, Sunshine, and Todd Shields (2008) *The Persuadable Voter: Wedge Issues in Presidential Campaigns*. Princeton: Princeton University Press.

Imai, Kosuke, Bethany Park, and Kenneth F. Greene (2014) "Using the Predicted Responses from List Experiments as Explanatory Variables in Regression Models" *Political Analysis* doi:10.1093/pan/mpu017, 1-17.

Kiewiet de Jonge, Chad and David Nickerson (2013) "Artificial Inflation or Deflation? Assessing the Item Count Technique in Comparative Surveys" in *Political Behavior* 36, 3: 659-682.

Keefer, Philip (2007) "Clientelism, Credibility and the Policy Choices of Young Democracies" *American Journal of Political Science* 51, 4: 804-821.

Kitschelt, Herbert and Melina Altamirano (2013) "Clientelism in Latin America: Effort and Effectiveness" paper presented at Conference on the Latin American Voter, Vanderbilt University, May 17-18.

Kitschelt, Herbert and Steven Wilkinson, eds. (2007) *Patrons, Clients, and Policies: Patterns of Democratic Accountability and Political Competition*. New York: Cambridge University Press.

Kitschelt, Herbert, Kirk Hawkins, Juan Pablo Luna, Guillermo Rosas and Elizabeth Zechmeister (2010) *Latin American Party Systems*. New York: Cambridge University Press.

Kramon, Eric (2009) "Vote-Buying and Political Behavior: Estimating and Explaining Vote-Buying's Effect on Turnout in Kenya" AfroBarometer Working Paper 114.

Kramon, Eric (2013) *Vote Buying and Accountability in Democratic Africa*, Ph.D. Dissertation, University of California, Los Angeles.

Kuklinski, James, Michael Cobb, and Martin Gillens (1997) "Racial Attitudes in the 'New South'" *Journal of Politics* 59, 2: 323-49.

Kwon, Kyeok Yong (2005) "Targeting Public Spending in a New Democracy: Evidence from South Korea" *British Journal of Political Science* 35: 321-341.

Laswson, Chappell and Kenneth F. Greene (2014) "Making Clientelism Work: How Norms of Reciprocity Increase Voter Compliance" *Comparative Politics* (October): 61-77.

Lazarsfeld, Paul, Bernard Berelson, and Henri Gaudet (1948) *The People's Choice: How the Voter Makes Up His Mind in a Presidential Campaign*. New York: Columbia University Press.

Lenz, Gabriel (2009) "Learning and Opinion Change, Not Priming: Reconsidering the Evidence for the Priming Hypothesis" *American Journal of Political Science* 53, 4 (October): 821-838.

Levitsky Steven (2003) *Transforming Labor-Based Parties in Latin America*. New York: Cambridge University Press.

Lindbeck, A. and J. Weibull (1987) "Balanced budget redistribution and the outcome of political competition" *Public Choice* 52: 273–97.

Lomnitz, Larissa Adler (1988) "Informal Exchange Networks in Formal Systems: A Theoretical Model" *American Anthropologist* 90: 42-55.

Lust-Okar, Ellen (2006) Elections under Authoritarianism: Preliminary Lessons from Jordan" *Democratization* 13, 3 (May): 455-470.

Magaloni, Beatriz (2006) *Voting for Autocracy*. New York: Cambridge University Press.

McCann, James, and Chappell Lawson (2003) “An Electorate Adrift? Public Opinion and the Quality of Democracy in Mexico” *Latin American Research Review* 38, 3: 60–81.

Miller, William, and Richard Niemi (2002) “Voting: Choice, Conditioning and Constraint” in L. LeDuc, R. Niemi, and P. Norris, eds. *Comparing Democracies 2*. London: Sage, 169–88.

Moreno, Alejandro (2007) “The 2006 Mexican Presidential Election: The Economy, Oil Revenues, and Ideology” *PS: Political Science & Politics*11, 1: 15-19.

Nichter, Simeon (2008) “Vote Buying or Turnout Buying? Machine Politics and the Secret Ballot” *American Political Science Review* 102 (February): 19-31.

Nichter, Simeon (2010) “Politics and Poverty: Electoral Clientelism in Latin America." Doctoral Dissertation, Department of Political Science, University of California, Berkeley.

Nichter, Simeon and Brian Palmer-Rubin (2015) “Clientelism, Declared Support, and Mexico’s 2012 Campaign” in J. Domínguez, K. Greene, C. Lawson, and A. Moreno (eds.) *Mexico’s Evolving Democracy*. Baltimore: The Johns Hopkins University Press: 200-226.

Nisbett, Richard and Tiimothy Decamp Wilson (1977) "Telling More than We Can Know: Verbal Reports on Mental Processes" *Psychological Review* 84, 3: 232-259.

COPA (2012) “Presidential and Legislative Elections in Mexico, July 1, 2012: Report of the Electoral Observation Mission”, Parliamentary Confederation of the Americas. http://www.copa.qc.ca/eng/documents/RAPPORT-MOE-Mexique-2012-a-VF.pdf

Petrocik, John (1996) “Issue Ownership in Presidential Elections with a 1980 Case Study” *American Journal of Political Science* 40 (August): 825–50.

Rubin, Donald (1987) *Multiple Imputation for Nonresponse in Surveys*. New York: Wiley & Sons.

Schaffer, Joby and Andy Baker (2015) “Clientelism as Persuasion-Buying: Evidence from Latin America” *Comparative Political Studies.* doi: 10.1177/0010414015574881.

Schneider, Mark (2015) Do Brokers Know their Voters? A Test of Guessability in India,” manuscript.

Simpser, Alberto (2012) "Could the PRI have bought its electoral result in the 2012 Mexican election?" in The Monkey Cage, 2012.

Stokes, Susan (2005) “Perverse Accountability: A Formal Model of Machine Politics with Evidence from Argentina” *American Political Science Review*, 99, 3:315-325.

Stokes, Susan, Thad Dunning, Marcelo Nazareno, and Valeria Brusco (2013) *Brokers, Voters, and Clientelism: The Puzzle of Distributive Politics.* New York: Cambridge University Press.

Szwarcberg, Mariela (2015) *Mobilizing Poor Voters*. New York: Cambridge University Press.

Tribunal Electoral de la Procuraduría Judicial Federal (TEPJF), *Juicio de incomformidad SUP-JIN-0359-2012*. Mexico City.

Van de Walle, Nicholas (2007) “Meet the new boss, same as the old boss? The evolution of political clientelism in Africa” in H. Kitschelt and S. Wilkinson, eds., *Patrons, Clients, and Policies*. Cambridge: Cambridge University Press, 50-67.

Vicente, Pedro (2014) “Is Vote-buying Effective? Evidence from a Field Experiment in West Africa” *Economic Journal* 124, 574: 356-387.

Wang, Chin-Shou and Charles Kurzman (2007) “Dilemmas of Electoral Clientelism: Taiwan, 1993” *International Political Science Review* 28, 2: 225-245.

Wantchékon, Leonard (2003) “Clientelism and Voting Behavior: Evidence from a Field Experiment in Benin” *World Politics*, 55, 3: 399-422.

Weghorst, Keith and Staffan Lindberg (2013) "What Drives the Swing Voter in Africa?" *American Journal of Political Science* 57, 3: 717–734.

Weitz-Shapiro, Rebecca (2014) *Curbing Clientelism in Argentina: Politics, Poverty, and Social Policy*. Cambridge: Cambridge University Press.

Zaller, John (1992) *The Nature and Origins of Mass Opinion*. New York: Cambridge University.

Zarazaga, Rodrigo (2014) "Brokers Beyond Clientelism: A New Perspective Through the Argentine Case" *Latin American Politics and Society* 56, 3: 23-45.

Online Appendix

"Why Vote Buying Fails"

Campaign-season Changes in Vote Choice

Table A1. Vote Choice

April Vote Intention	July Vote Choice				Total
	JVM	EPN	AMLO	GQT	
JVM	13.0	5.3	2.2	0.1	20.5
EPN	5.4	24.9	5.8	0.5	36.6
AMLO	2.0	4.5	14.3	0.4	21.2
GQT	0.4	0.8	0.5	0.3	2.0
Undecided	5.1	7.7	6.4	0.4	19.6
Total	25.9	43.1	29.2	1.8	100.0

Entries are percent of the electorate. July vote choice excludes non-voters. See main text for details.

List Experiment Balance

There were no statistically significant differences in means across treatment and control groups for a series of demographic and vote-relevant variables.

Table A2. List Experiment Balance

Variable	List A (Control) Mean	List B (Treatment) Mean	Difference	t	N
Age	39.90	41.50	1.68	-1.54	841
Socio-economic status	1.38	1.43	-0.04	-0.60	815
Education	3.96	3.87	0.09	0.56	841
Female	0.56	0.55	0.01	0.23	841
Peña Nieto vote intention, April	0.37	0.33	0.04	1.23	841
Vázquez Mota vote intention, April	0.21	0.21	0.00	-0.05	841
López Obrador vote intention, April	0.20	0.21	-0.01	-0.48	841
Interest in politics	1.32	1.31	0.01	0.10	837
Perception of ballot secrecy	4.01	4.13	-0.11	-1.36	838
PRI poll watchers	49.60	49.70	-0.05	-0.03	841

Vote Selling Models

See the main text for the outcome vote choice models.

Table A3. Treatment and Control Group Models

	Pre-campaign dispositions				Post-campaign dispositions			
	Vázquez Mota vs. Peña Nieto		López Obrador vs. Peña Nieto		Vázquez Mota vs. Peña Nieto		López Obrador vs. Peña Nieto	
	Coef	SE	Coef	SE	Coef	SE	Coef	SE
Control group								
Intercept	-0.056	0.590	-0.948	0.601	0.022	0.656	-0.923	0.612
Peña vote intention, April	0.263	0.188	0.339	0.227	0.285	0.207	0.373	0.220
Vázquez vote intention, April	0.496	0.238	0.360	0.290	0.458	0.257	0.390	0.244
López vote intention, April	0.428	0.290	0.757	0.256	0.416	0.331	0.831	0.286
Female	-0.021	0.132	-0.251	0.141	-0.012	0.151	-0.220	0.140
Age	-0.003	0.005	0.007	0.005	-0.001	0.007	0.008	0.005
Education	0.027	0.031	0.112	0.035	0.036	0.035	0.118	0.033
PRI ID, April	-0.095	0.189	-0.079	0.226	-0.069	0.212	-0.129	0.225
PAN ID, April	-0.068	0.208	-0.111	0.241	-0.163	0.247	-0.126	0.243
PRD ID, April	-0.194	0.300	-0.061	0.225	-0.253	0.344	-0.089	0.222
Peña competence, April	-0.012	0.016	0.000	0.018	-0.022	0.022	0.002	0.018
Vázquez competence, April	0.002	0.018	0.015	0.018	0.000	0.019	0.015	0.017
López competence, April	-0.023	0.015	-0.022	0.019	-0.020	0.017	-0.025	0.018
Pro-Peña poll watchers	-0.003	0.004	-0.001	0.005	-0.003	0.005	-0.001	0.005
Belief in secret ballot	-0.027	0.077	-0.044	0.085	-0.017	0.089	-0.038	0.086
Sociotropic evals, April	0.097	0.073	0.037	0.084	0.118	0.091	0.031	0.089
Retro crime evals, April	0.035	0.068	0.044	0.071	0.008	0.079	0.061	0.073
Sociotropic evals, July					0.049	0.076	0.007	0.079
Retro crime evals, July					-0.063	0.097	-0.069	0.078
Treatment group								
Intercept	4.750	7.587	-0.948	4.799	10.041	16.190	4.985	5.297
Peña vote intention, April	-2.820	2.364	0.339	1.694	-3.698	6.167	-2.142	1.875
Vázquez vote intention, April	2.590	4.175	0.360	31.798	12.891	20.506	7.539	72.702
López vote intention, April	-2.542	3.128	0.757	1.708	-1.242	4.616	-4.056	2.083
Female	-3.024	2.011	-0.251	0.907	-6.273	9.632	0.915	0.954
Age	0.097	0.065	0.007	0.034	0.228	0.344	-0.063	0.038
Education	0.192	0.334	0.112	0.275	0.132	0.798	-0.274	0.274
PRI ID, April	8.262	4.802	-0.079	1.509	19.560	27.644	1.971	1.623
PAN ID, April	-3.456	3.006	-0.111	31.761	-1.795	7.449	-6.701	72.690
PRD ID, April	-0.467	3.029	-0.061	1.557	3.696	6.465	1.412	1.729
Peña competence, April	-0.442	0.276	0.000	0.126	-0.669	1.058	0.049	0.131
Vázquez competence, April	-0.192	0.251	0.015	0.135	-0.274	0.412	-0.326	0.156

López competence, April	0.264	0.240	-0.022	0.127	0.249	0.334	0.039	0.133
Pro-Peña poll watchers	0.018	0.065	-0.001	0.036	0.073	0.125	-0.048	0.042
Belief in secret ballot	1.177	1.005	-0.044	0.586	2.259	4.278	0.378	0.657
Sociotropic evals, April	0.053	0.748	0.037	0.555	0.381	1.579	0.026	0.614
Retro crime evals, April	-3.204	1.883	0.044	0.528	-3.500	6.607	-0.138	0.680
Sociotropic evals, July					0.511	1.940	0.750	0.545
Retro crime evals, July					-5.640	7.694	-0.400	0.679

Naïve and Knowledgeable Broker Models

Table A4. Naïve Broker (pre-campaign dispositions)

Variable	Vázquez Mota v Peña Nieto			López Obrador v Peña Nieto		
	Coef	SE	p	Coef	SE	p
Peña vote intention, April	-0.794	0.306	0.009	-0.741	0.307	0.016
López vote intention, April	-0.579	0.418	0.166	0.511	0.341	0.134
Vázquez vote intention, April	0.196	0.346	0.570	-0.940	0.393	0.017
PAN ID, April	0.428	0.312	0.170	0.353	0.339	0.297
PRD ID, April	0.345	0.414	0.405	0.768	0.335	0.022
PRI ID, April	-0.441	0.312	0.158	-0.592	0.315	0.061
Vázquez competence, April	0.051	0.027	0.059	0.031	0.026	0.236
López competence, April	-0.009	0.024	0.707	0.066	0.025	0.007
Peña competence, April	-0.045	0.024	0.065	-0.053	0.025	0.034
Sociotropic evals, April	0.114	0.110	0.300	-0.028	0.110	0.800
Retro crime evals, April	0.102	0.108	0.346	-0.139	0.107	0.193
Female	0.324	0.204	0.111	-0.398	0.201	0.048
Age	-0.013	0.007	0.056	-0.009	0.007	0.189
Education	-0.031	0.049	0.522	-0.009	0.048	0.849
Pro-Peña poll watchers	-0.008	0.004	0.038	-0.007	0.004	0.098
Belief in secret ballot	-0.029	0.082	0.723	0.080	0.083	0.335
Intercept	0.307	0.771	0.690	0.546	0.788	0.489
N	784					
Pseudo rsq	0.203					

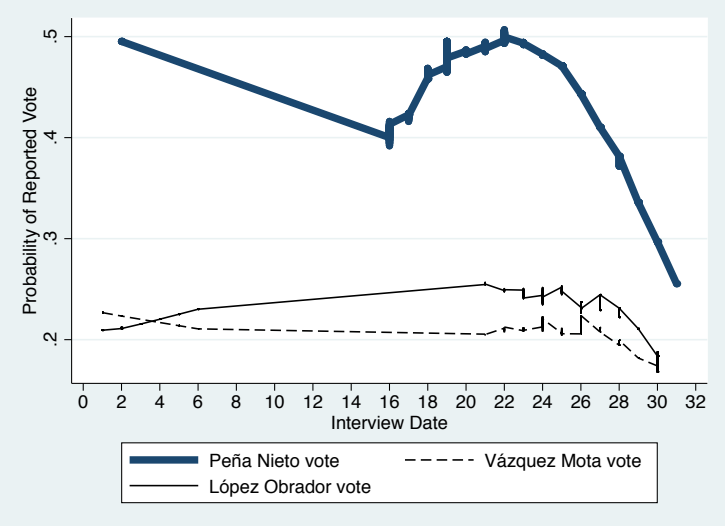
Table A5. Knowledgeable Broker (post-campaign dispositions)

Variable	Vázquez Mota v Peña Nieto			López Obrador v Peña Nieto		
	Coef	SE	p	Coef	SE	p
Peña vote intention, April	-0.884	0.316	0.005	-0.785	0.312	0.012
López vote intention, April	-0.724	0.429	0.091	0.512	0.345	0.138
Vázquez vote intention, April	0.110	0.360	0.759	-1.008	0.397	0.011
PAN ID, April	0.399	0.326	0.221	0.428	0.343	0.213
PRD ID, April	0.540	0.424	0.202	0.793	0.340	0.020
PRI ID, April	-0.494	0.320	0.123	-0.583	0.319	0.067
Vázquez competence, April	0.050	0.027	0.065	0.036	0.027	0.175
López competence, April	-0.014	0.025	0.572	0.064	0.025	0.011
Peña competence, April	-0.034	0.025	0.168	-0.054	0.025	0.031
Sociotropic evals, April	-0.003	0.115	0.981	0.031	0.115	0.790
Retro crime evals, April	-0.053	0.114	0.641	-0.159	0.112	0.155
Sociotropic evals, July	0.265	0.118	0.025	-0.340	0.115	0.003
Retro crime evals, July	0.533	0.126	0.000	0.131	0.117	0.266
Female	0.348	0.211	0.098	-0.469	0.205	0.022
Age	-0.017	0.007	0.021	-0.013	0.007	0.077
Education	-0.036	0.050	0.477	-0.009	0.049	0.858
Pro-Peña poll watchers	-0.014	0.009	0.103	-0.017	0.009	0.071
Belief in secret ballot	-0.011	0.086	0.899	0.100	0.084	0.237
Intercept	-1.542	0.851	0.070	1.000	0.832	0.229
N	745					
Pseudo rsq	0.544					

Vote Choice Variable

Post-election surveys often over-estimate support for the winning candidate (Belli et al 1999). This bandwagon effect was larger in the Mexico 2012 Panel Study than in the 2000 and 2006 studies (see Greene 2007, 2011). Using an uncorrected variable would bias results in favor of my hypothesis that vote buying fails because some voters who did not vote for Peña Nieto would be counted as having voted for him and would thus dilute any influence of vote buying on their apparent vote choices.

Figure A1. Bandwagon Effect (lowess)



To correct for the bandwagon effect, I augmented self-reported vote choice with feeling thermometer ratings of the candidates. The question read "I am going to ask your opinion about some candidates and institutions. Using a scale from 0 to 10 where 0 means that you have a very bad opinion and 10 means you have a very good opinion, what is your opinion about…[Josefina Vázquez Mota, Enrique Peña Nieto, Andrés Manuel López Obrador, Gabriel Quadri de la Torre]. Voters who reported voting for Peña Nieto but also rated another candidate strictly higher were recoded as having voted for that candidate. This procedure recoded 38 (5.2%) of votes, reducing the impact of bandwagoning in favor of Peña Nieto and thus diminishing bias in favor of my hypothesis.

Methodological Artifacts

The findings presented in Table 3 in the main text are not likely due to endogeneity. In one version of endogeneity, respondents would receive a payoff, vote for Peña Nieto because of the payoff, and then bring their vote-relevant non-clientelist attitudes in line with their vote choice. If this were to occur, the models I present in the main text may not correctly distinguish the

effects of vote buying from the effects of endogenous attitude change. As a result, I would incorrectly reject the causal effect of vote buying (i.e., type ii error). However, if voters rationalized in this manner, paid voters would evaluate Peña Nieto more positively than unpaid voters on non-clientelist variables. Table A6 shows that there are no statistically significant differences in the propensity to sell one's vote across voters with pro- and anti-Peña Nieto changes in vote-relevant attitides between April and July. In fact, the probability of vote selling rises with a shift in sociotropic economic evaluations that disfavors Peña Nieto.

Table A6. Vote Selling Probability by Pro- and Anti-Peña Attitude Change

	Pro-Peña	Anti-Peña
Δ Retrospective Crime Evaluations, April-July	16.1	9.2
Δ Sociotropic Evaluations, April-July	2.4	16.6

Entries are difference in means tests. None of the differences are statistically significant at the 95% level.