Deadly Populism: How Local Political Outsiders Drive Duterte's War on Drugs in the Philippines

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Around the world, populists have won elections on the strength of crowd-pleasing, but norm-defying, policy proposals. Although effective at mobilizing support at election time, these policies are often difficult to implement in practice because populists lack allies throughout the political system. Examining President Rodrigo Duterte's brutal War on Drugs in the Philippines, we find that mayors excluded from existing establishment patronage networks filled this critical implementation gap. Employing regression discontinuity and difference-in-differences approaches, we demonstrate that outsider mayors received 40% lower public works appropriations and, in turn, executed Duterte's drug war much more aggressively. Outsider-led municipalities had 40% more antidrug incidents and 60% more extrajudicial killings by police. The results illustrate an important trade-off between patronage politics and corruption (politics as usual) and violent democratic backsliding.

In recent years, elections have swept political "outsiders" into power across a wide range of countries, including Jair Bolsonaro in Brazil, Andrej Babiš in the Czech Republic, the Five Star Movement in Italy, and Rodrigo Duterte in the Philippines. While the nature of these leaders' policy platforms differs significantly, their campaigns all rely on charismatic appeals and rhetoric centered on bucking "entrenched," "elite," or "establishment" political systems (Akkerman, Mudde, and Zaslove 2014).[1] This rhetoric serves a key purpose for popular mobilization, but it also foreshadows an important challenge facing outsiders once they take office. When politicians enter office, they must contend with political and bureaucratic impediments that limit their ability to enact policy change, especially for high-profile, signature policies that violate constitutional and even democratic norms. This process is likely to be especially difficult for political outsiders because established elites have a strong incentive to resist changes to politics as usual.

How, then, do outsider national leaders overcome institutional opposition to implement norm-defying, constitutionally dubious policy initiatives? We posit that nonestablishment leaders can push forward their policy agenda because of the incentives facing local politicians who are excluded from existing patronage or party networks, leading them to bandwagon on the leaders' signature policy, even if they did not win office by campaigning for this policy in the first place. Doing so provides an alternative, if risky, pathway to retaining local office that does not rely on being well connected to preexisting political networks. By aggressively implementing the leaders' controversial signature policy, local outsiders inextricably link themselves to the policy, signaling their loyalty to the national leader. Local insiders, however,

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Data and supporting materials necessary to reproduce the numerical results in the article are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). An online appendix with supplementary material is available at https://doi.org/10.1086/715257.

1. It is this pro-people, antielite ideology that many scholars use to define populism. Periods of populism—when "majoritarian" democracy treads on "civil rights" democracy—are common features of unconsolidated democracy, what Slater (2013) calls democratic "careening."

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may be less willing to risk "riding the wave" of the controversial policy's popularity because they already have access to stable patronage networks that improve their reelection chances.

We test this argument by exploiting competitive mayoral elections between insider and outsider candidates during the 2016 Philippines election campaign.[2] Employing both regression discontinuity design (RDD) and difference-in-differences (DID) approaches with geocoded data from Philippine National Police (PNP) crime blotter reports and Armed Conflict Location and Event Data Project (ACLED) data on extrajudicial killings, we find that mayors from independent or minority parties executed President Rodrigo Duterte's signature War on Drugs much more aggressively than those associated with the establishment Liberal Party (LP).[3] Outsider-led municipalities filed 40% more antidrug blotter reports and were 60% more likely to have a PNP officer kill a drug suspect. On other peace and security measures, such as total crime rates, homicides, or property crime, insider and outsider mayors' records look indistinguishable, and the background census characteristics of these municipalities are close to identical. These effects are found only within competitive races; outsiders that win by large margins do not have an incentive to appeal to the national authorities by engaging aggressively in the drug war because they are likely to win reelection on their own. Indeed, we find a precisely estimated null effect in noncompetitive races.[4]

A likely mechanism for these results is that outsider mayors have limited access to the traditional source of sustained political power. Compared to their establishment counterparts, outsider mayors received 40% less in public works procurement funds, the primary source for patronage and pork for local politicians. This difference is driven largely by two categories of spending—roads projects and flood abatement—that are well-known sources of kickbacks and nepotistic contracting, both of which are often used to facilitate clientelist exchanges.

Finally, we show that throwing their weight behind the drug war implementation had the expected electoral benefit for local outsiders. Despite their relative undersupply of resources needed to build support through patronage politics, outsider mayors performed about 5 percentage points better than insiders in the May 2019 midterm election. This is a far cry from previous cycles, when outsiders were about 20 percentage points less likely than insiders to win reelection. Although both LP and outsider mayors eventually tried to switch parties to join President Duterte's PDP-LABAN, outsiders were substantially more likely to win reelection as part of Duterte's alliance. As the second half of the Duterte presidency begins in 2019, we see that the former outsiders, having shown their loyalty to Duterte via the drug war, are establishing a new insider patronage network under the PDP-LABAN banner.

We acknowledge that scholars of patronage politics think about "insiders" and "outsiders" in a variety of ways, some of which do not cleanly correspond to the definition we use here. Those familiar with the Philippine context may be concerned that because party names are fluid, using party labels appears to be a counterintuitive choice. For the purposes of this study, however, we define insiders and outsiders in a functional manner: insiders are those who in 2016 had access to a network with preferential access to pork largess. As we explain in greater detail below, we believe that for the early Duterte years and three years prior, the insider/outsider designation oriented around the LP provides good inferential leverage for our research question.

Our findings speak to an enduring and recently revitalized debate about populist strategies and their implications for national and local democratic politics (Inglehart and Norris 2016; Mudde 2007; Riker 1982). Much of the discussion has revolved around the fault lines that give rise to populist movements and why they succeed or fail at attaining power (Kenny 2017; Mudde 2013; Pepinsky 2019; Sachs 1989; Seligson 2007). Our study fills an important gap in the literature, by exploring how the implementation of policies that are effectively authoritarian—and by extension enable the process of democratic backsliding—ultimately depends on preexisting political structures and networks. In short, populist leaders need to secure the cooperation of local political elites to successfully implement their agenda, but they often must rely on those that are outside of the previous political establishment to do so.

The results dovetail with experiences from around the world, including in democracies at varying stages of development. In contemporary cases as diverse as the United States, Brazil, Hungary, India, and Indonesia, populist leaders have won elections and then faced serious challenges implementing signature policies within their entrenched political systems. The Philippines is a case with an especially weak party system, but even in countries with more stable ideological cleavages, national-level outsiders need to realign the structures of politics to have a sustained influence. In

2. Throughout the article we use the terms *insider* and *establishment* interchangeably to refer to politicians who have access to existing patronage networks and party support. We also use *outsider* and *nonestablishment* as synonyms.

3. The LP, aligned with the previous president Benigno Aquino III, made up 46% of mayors after the 2016 election.

4. Using the DID estimator; we cannot use regression discontinuity for the noncompetitive races. In the appendix we show that the results are robust to a range of "competitive" bandwidths.

contexts where power is decentralized and bureaucratic structures are less well developed, local politicians are afforded tremendous control over how policies dictated by the political center are translated into action (Grindle 2017). In more developed bureaucratic institutions, allies at various levels of government are crucial to successful policy implementation (Pressman and Wildavsky 1984; Scholz, Twombly, and Headrick 1991).[5] Across these contexts, the political incentives for marginalized lower-level officials to independently drive forward signature policies in order to build connections with a populist leader are likely to be at play.

Last, our study addresses a complicated and often tragic thematic issue—policies around illegal drug enforcement—at a time when violent crackdowns are on the rise. From El Salvador (Holland 2013) to Bangladesh (Quackenbush 2018) and Cambodia (Prak Chan Thul 2017), harsh government responses to drug trafficking and usage are often popular among voters. Important work by Dell (2015) documents how crackdowns, driven by the partisanship of local officials, affect violence between competing cartels in Mexico. We build on this line of scholarship by showing that beyond ideological comportment or concerns for human rights or partisanship, local electoral incentives and a political quid pro quo play a critical role in dictating the extent of violent drug crackdowns (Jung and Cohen 2020).

The article proceeds with a section on theory and hypotheses before discussing the Philippine context and the regional debate about drug enforcement in Southeast Asia. We then explain our research design, including the identification strategy, data, and estimation. We present the results before concluding. The appendix includes numerous robustness tests and diagnostics, as well as narrative information regarding the case.

THEORY

Political outsiders have enjoyed substantial success in recent years and have often won by championing policies that are popular with their base (and sometimes the public at large) but contravene long-held social or political norms (Mudde 2004; Spruyt, Keppens, and Van Droogenbroeck 2016). Examples include Donald Trump's 2016 campaign promise to build a wall, Hungarian Prime Minister Victor Orban's crusade against the Central European University, and Rodrigo Duterte's ongoing War on Drugs in the Philippines. After being elected, a critical question is how these political outsiders who rely on sui generis signature policies and personal charisma can work within the existing system to implement their agenda.

In many areas of the developing world, including Latin America and Southeast Asia, "business-as-usual" politics involve a layered system of patronage and clientelism in which national politicians need strong local allies to carry out their policy agendas and to shore up votes during elections (Kitschelt and Wilkinson 2007; Stokes et al. 2013; Wantchekon 2003). Local politicians with ties to national figures, in turn, get preferential access to funds that allow them to win electoral support for themselves and, consequently, consolidate support for the national politicians to whom they have ties (Calvo and Murillo 2013; Hicken 2011). As a result, local politicians belonging to active patronage networks are likely to fight tooth and nail to maintain their dominance as "insiders" and undermine outsider national politicians (Fergusson, Larreguy, and Riaño 2015).

In this context, populist appeals are more likely to effectively mobilize voters when ruptures emerge in the patronage-based party system, making it more difficult for establishment national leaders to rely on clientelism to maintain power (Kenny 2017). The situation in which local elites and "brokers" are less strongly tied to existing party networks than before characterizes many countries in South and Southeast Asia over the past several decades (Kenny 2018). Populists in the region have jumped on these divides by very explicitly "instigating a 'split' in the relations with 'establishment' elites" (Case 2017, 1). Despite signs of decentralization, the importance of patronage and clientelism has remained remarkably robust across the region. In order to have staying power, populist politicians must quickly co-opt these existing institutions before the initial enthusiasm surrounding their campaigns wears off (Chesterley and Roberti 2018).

A defining characteristic of outsider national politicians is that they do not enter office with a robust, preexisting apparatus of allies in other parts of government. For example, when Duterte entered office in 2016, only 19 out of 1,614 mayors nationwide shared his PDP-LABAN party label.[6] Even though Duterte originally mobilized support through populist mantras that stoked both anxiety and hope among his supporters, a crucial aspect of his staying power is based on establishing relationships with local political elites (Curato 2016). Without local allies who share a vision, have a personal connection, or rely on maintaining ties with the national leader for career advancement, how do outsider leaders incentivize local elites to implement their preferred policies

5. The dynamics we describe may be less applicable to parliamentary democracies, where the head of state requires party support to come to power and then has the power to appoint allies at other levels of government.

6. Shared party labels in the Philippines do not strongly signal ideological alignment; instead, they usually indicate politicians who are members of the same patronage network in a given election cycle.

full force? This question is particularly salient when the policy in question appears to violate constitutional and democratic norms.

We posit that outsider leaders without ties to existing party machines or a robust informal network of local allies can instead rely on local politicians who themselves do not have access to these same clientelist, establishment means of politics.[7] In brief, our theory relies on the idea that early in the new national leader's tenure, local politicians need to place a risky bet on whether the long-term benefits of aggressively implementing the signature policy outweigh the costs. Being connected to policies that are associated with democratic "backsliding" can have serious negative consequences if the policy's popularity later drops. However, aggressively implementing the policy can allow local politicians to signal their loyalty to the national leader and reap electoral benefits if they are able to incorporate themselves into the leader's emerging patronage network or if the policy remains popular down the line. We argue that local outsiders will be more likely to take this risk because they do not have links to existing patronage networks that provide a more stable path to reelection.

One might think that riding the populist wave would be the optimal strategy for all local politicians, especially during times when the policies espoused by the center are broadly popular. In the Philippines, for example, Duterte's violent drug war was initially extremely popular and has maintained support from over 80% of the population according to most surveys (see fig. 1). While it may be good politics for local politicians to adopt some version of the policy, fully carrying out a policy of dubious legality carries significant downside risk. The public may express strong support for the campaign against illegal drugs, but many civilians express significant fear of being victimized by its more violent manifestations. Support for extrajudicial killings, for example, is below 50%.

When local politicians implement a policy of this nature with a heavy hand, they make it more difficult to distance themselves from the policy or the leader if they later become unpopular. In this way, strongly associating oneself with a national leader's controversial signature policy means tying one's future electoral prospects to the continuing popularity of both the leader and the policy itself. As Chesterley and Roberti (2018) note, populist policy agendas often provide short-term benefits but then result in a dramatic "bust" in long-term economic outcomes. The approval ratings of every other post-Marcos president dropped precipitously over

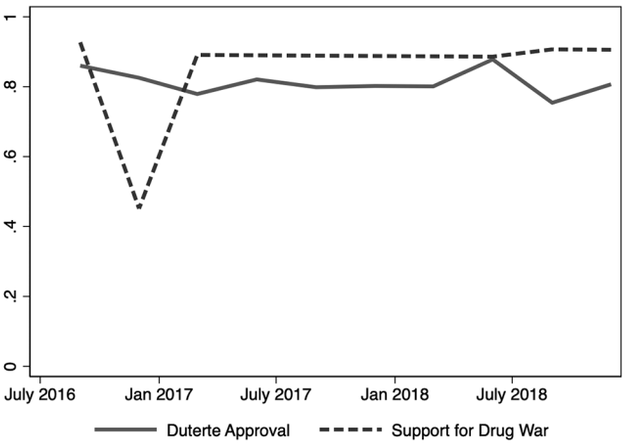

Figure 1. Public approval for the drug war and President Duterte. (Source: Pulse Asia Opinion Polling.) Color version available online.

the course of their terms, making it reasonable early in Duterte's tenure for local politicians to assume that he may not retain high popularity.

Adding to the public-facing costs local politicians may suffer if the policy later falls out of favor, implementing populist policies espoused by antiestablishment politicians may lead to estrangement from the stable political parties or powerful political brokers that enable sustained political careers. This is especially salient in countries like the Philippines, where a small subset of political elites has controlled politics for several generations (Cruz, Labonne, and Querubin 2017; McCoy 2009; Querubin 2016). Fully implementing policy initiatives that involve illegal practices or human rights violations can even leave local elites vulnerable to future prosecution if the political winds change. In short, instead of wholeheartedly implementing the signature policy, local politicians may choose to hedge, only implementing it to the extent that it allows them to later distance themselves from the policy if support drops.

Despite the risks of implementing the signature policy, there also exist important potential benefits. First, and perhaps most importantly, aggressively implementing the policy can allow local politicians to credibly signal their loyalty to the populist national politician. This signal is credible specifically because of the potential costs outlined in the paragraphs above. By aggressively implementing the policy, local politicians are "tying their hands" from later distancing themselves from the leader. This display of loyalty on the part of local politicians makes it more likely that they will be favored by the leader when he or she is establishing a new network of local support.[8] In turn, this can translate into future access to funds if

7. An example existing party machine is the pre-2000 PRI in Mexico (Fergusson et al. 2015; Magaloni 2006). Robust informal networks of local allies are relevant in the Philippines (Hicken 2014), Indonesia (Pepinsky 2009), and India (Auerbach 2016).

8. This mechanism is similar to the one proposed by Shih (2008), in which local Chinese politicians use "nauseating" displays of support to signal loyalty to a particular party faction.

the leader is able to establish a new patronage network or an increased likelihood of the national leader campaigning on the local leader's behalf. Within their first few years in power, populist leaders around the world often quickly turn to co-opting institutions by distributing patronage to subnational elites who they view as loyal supporters (Chesterley and Roberti 2018; Pappas 2019).

In addition to the benefits associated with signaling their loyalty to the national leader, local politicians who aggressively implement the policy are more likely to be able to effectively claim credit for supporting the policy if it remains popular with the public during the next election cycle. Many politicians may later try to claim that they were initial supporters of a controversial policy, but voters are more likely to believe politicians who actually put their "money where their mouth was."

The norm-defying nature of the signature policy is a crucial distinguishing factor between the dynamic we describe and "clientelist politics as usual." The risks associated with implementing a norm-defying signature policy allow the outsider national politician to screen for local allies who are willing to pay the costs associated with enthusiastic implementation and are likely to be committed supporters of a new policy agenda and political machine. In this way, a national-level populist leader pushing a controversial signature policy provides a credible road map for local politicians to advance their political careers if they do not have access to the traditional means of mobilizing votes. Throwing their support behind a populist's signature policy requires local political power but not necessarily great material resources. For example, implementing the drug war requires influence over local police but not substantial financing. Paradoxically, this affords populists the ability to use their outsider credentials and norm-defying character to succeed in implementing policies that would not otherwise gain traction had they been part of the establishment.

In the absence of the costs associated with a norm-defying policy, a wide range of local politicians would likely band behind the national leader and local politics would quickly return to business as usual. The fact that implementing the policy full force carries significant risks allows the national leader to distinguish between potential allies who are likely to remain loyal and those who are hedging by signaling their loyalty through "cheap talk." To illustrate, politicians in the Philippines commonly switch their affiliation to the new leader's party shortly after the election (when the leader is still popular) in an attempt to show their support for the new regime. But as soon as the leader's popularity drops or a new leader is elected, politicians again switch their party affiliation in whatever way is politically expedient. In the past, despite all this party switching, the politicians with enduring insider connections always maintained a heavy advantage in the subsequent elections. In contrast, in the aftermath of Duterte's elections, it was the former outsiders that for the first time had a distinct advantage in the midterm elections.

For which local elites, then, will it be worth the risk to fully implement the policies espoused by a populist national leader? We argue that the benefits are most likely to outweigh the risks for local politicians who have weak existing ties to establishment political networks. Especially in political systems that are reliant on long-established clientelist networks linking local politicians to national-level patrons, the local politicians who are not part of these networks are at a distinct disadvantage when it comes to winning reelection. Local politicians without strong ties to established political networks cannot rely on the "pork" needed to either distribute clientelist benefits or implement programmatic policies that bolster their support. As a result, those who are "locked out" of establishment political networks have the most to gain from signaling their loyalty to a national leader who is trying to establish a new patronage network. Local insiders, however, can simply rely on patronage distributed through establishment networks and do not need to signal loyalty to a new patron.

Second, without a safe alternative pathway to reelection that relies on patronage distribution, local outsiders may be more willing to gamble on riding the leader's popularity with the public. Even if they are unable to integrate themselves into a patronage network by the next election cycle, associating themselves with the leader's signature policy can provide an alternative path to reelection if the policy remains popular. In contrast, local insiders have a more stable path to reelection and do not have to gamble on the future popularity of the leader and his signature policy.

There are several important scope conditions for where we expect these dynamics to take hold. Outsider politicians who are already winning by large margins are unlikely to resort to national populist policies. Instead, it is those candidates that win by relatively bare margins, who, concerned about their chances of reelection, will turn to the populist policy to overcome their limited connections to the established patronage network. Furthermore, we expect these dynamics are most likely to be observed in contexts where local politicians have significant leeway over policy implementation. Contexts where local politicians have little control over the bureaucracy or where central government agencies rather than local ones carry out implementation may experience different dynamics. Finally, populists are more likely to find enthusiastic local allies in contexts where there is adequate decentralization in party-based patronage systems. In other words, the same weaknesses in the existing patronage system that create

openings for populists to gain power in the first place (Kenny 2017) can also allow populists to consolidate power over time. Stemming from this theory, our core hypothesis is that:

> **H1.** Local politicians who are not aligned with establishment political networks are more likely to aggressively implement policies supported by national-level populist politicians.

The key logic behind this hypothesis is that local outsiders do not have the same level of access to the "traditional" means of maintaining political power. To test this key mechanism (and to establish the validity of the way we operationalize "insiders" and "outsiders") we put forth a second hypothesis:

> **H2.** Local politicians who are aligned with establishment political networks are more likely to receive "pork."

Finally, observing the effort by certain local politicians to implement the signature policy, we would expect the outsider leader to reward these politicians with attention come election time. This could occur by sending prominent personalities within the party to campaign for these mayors, making campaign contributions, or allowing popular political branding to take place. While we expect the usual "turncoatism" that occurs in the Philippines of many local politicians switching to the national leader's political party, we also expect that in the case of a populist leader with a norm-defying signature policy, the former outsiders who credibly signaled alignment through aggressive implementation of the policy will actually reap political benefits, realigning the locus of local political power. Thus, in addition to the main hypotheses above, we hypothesize:

> **H3.** Provided the outsider national leader stays in power, local politicians—insiders and outsiders alike—will attempt to switch allegiances and align with the outsider leader.

> **H4.** Local political outsiders who demonstrate loyalty to the outsider leader via the aggressive implementation of the leader's policy will be more likely to be rewarded electorally for switching.

CONTEXT

The war on drugs in the Philippines

> Three-year-old Myka Ulpina died after being caught in a crossfire during an anti-narcotics operation in Rodriguez, Rizal last June 30. Ulpina's father, Renato, and another companion, as well as Senior Master Sgt. Conrad Cabigao, who went undercover, also died in the shootout. The police said Renato fired at the police and used his daughter as shield. It's not a perfect world and "s**t happens," Senator Ronald "Bato" Dela Rosa said Thursday as he defended the police. —ABS-CBN News, July 4, 2019

We test our theory in the Philippines, where President Rodrigo Duterte has executed a violent, controversial, and politically supercharged War on Drugs in the aftermath of his election in 2016. Beyond being norm defying and constitutionally questionable, this policy has taken a tremendous toll in terms of lives lost. Numerical aggregates will never do justice to the stories of individual victims, but, precisely because this policy has been so brutal, we think it is important to understand the reasons why it was so aggressively implemented across a country that was previously considered one of the strongest democracies in the region.

Illegal drug use is a highly salient and politically charged topic across Southeast Asia, as it is in many parts of the world. From 2013 to 2018, methamphetamine seizures across Southeast Asia tripled from about 40 million tons to just under 120 million tons (UNODC 2019). Among the 10 Association of Southeast Asian Nations (ASEAN) member states, all but Vietnam currently report that methamphetamine is the "primary drug of concern" in their society (UNODC 2019). In the Philippines, more than 90% of individuals admitted for drug treatment over the past five years used crystalline methamphetamine, a.k.a. crystal meth (UNODC 2019). This led to extensive public outcry and turned drugs into a powerful political tool for enterprising politicians like now-president Duterte. Known as "the Punisher" during his time as mayor of Davao City in southern Mindanao, Duterte repeatedly won office by promising to deal with criminality and the drug economy in the harshest terms possible: "When I said I'll stop criminality, I'll stop criminality. If I have to kill you, I'll kill you. Personally" (Ressa 2015).

The Duterte administration's crackdown, although brutal and of questionable legality (Human Rights Watch 2017), continues to enjoy broad public support. Based on surveys conducted by Pulse Asia, table A.30 (tables A.1–A.32 are available online) shows that the drug war, including a 2017 escalation known as Double Barrel Reloaded, is quite popular across economic classes. This popularity has been stable over time, as seen in figure 1, with the only notable exception being a drop in late 2016, when a scandal about the PNP broke. The drug crackdown's popularity returned after a matter of months, following a short "pause" demanded by the president. More than two-thirds of respondents in the same

surveys, however, say they fear being injured or killed inadvertently by drug war operations, a pattern driven primarily by lower-class respondents (see table A.30).

Even if the Philippines case is an extreme example, governments in Southeast Asia have often responded to drug problems with violent crackdowns against smugglers, distributors, and even users. Replicating what became known in El Salvador in the 1990s as the Mano Dura (iron fist) approach, police-led clearing operations are intended to beat back drug trafficking networks and give confidence to law-abiding citizens. Severe drug crimes are liable for capital punishment in most ASEAN countries—in recent years traffickers and distributors have been executed in Myanmar, Thailand, Malaysia, Singapore, Vietnam, Indonesia, and the Philippines. Although primarily carried out through formal state processes, vigilantism and extrajudicial killings are on the rise across the region.

An outsider president

The Philippines has a presidential system. Presidents serve a six-year term with no reelection, while mayors and congressmen can serve up to two consecutive three-year terms. At the local level, there are 81 provinces in the country, each with, on average, 20 municipalities and cities (for a total of 1,634 municipalities and cities). Provinces are overseen by governors, and municipalities and cities by mayors.

Relative to the Manila establishment, Duterte came into power as a political outsider. While he was a long-standing mayor in Davao City, the Philippines' second largest population center, Duterte had relatively few ties to the traditional sources of national power. He is the first Philippine president from the large southern island of Mindanao and declared that he was running on the last possible day for legal filing of a campaign. Duterte's ideology has been described as populist by a number of scholars, and his policy platform centered on a campaign against illegal drugs that followed in the footsteps of the harsh crackdown he oversaw as Davao's mayor. Although Duterte won with a plurality of 39% of the vote—an outcome fairly typical for presidential elections in the Philippines—he is the only president since the 1986 People Power Revolution who won under a party label (PDP-LABAN) with virtually no representation in the legislature and no mayoral allies at the local level (see table 1).[9]

Party labels and insider status

In general, formal political parties in the Philippines are weak, and campaigns are centered strongly around individual personalities (Hicken 2009). The political party structure changes from election to election, and parties are not typically associated with a well-defined programmatic platform. Politicians have little allegiance to party labels, frequently switching from one party to another in search of the greatest access to patronage resources (Hutchcroft 2008; Ravanilla 2019).

Although parties are weak and politicians switch allegiances all the time, party labels are nonetheless useful for identifying "insiders" and "outsiders" during a given election cycle. In a patronage democracy like the Philippines, party labels capture patronage linkages among candidates across different levels of elective offices in the short term. To run under a national party label signals a candidate's allegiance with a dominant patronage network. This goes both directions: a party indicates to voters that the candidate has been accepted into the network, and the candidates signal that they have chosen to join forces with others using that label, if only for a given election cycle.[10]

These networks are centered around sources of both constitutional and de facto political power. In the Philippines, the wielders of power are, on the one hand, the national legislators with their "power of the purse" (e.g., control over budgeting and public works procurement) and, on the other hand, the president, with the concomitant powers of the executive (e.g., appointment of cabinet secretaries and key civil service positions and control over the timing of the releases of internal revenue allotments to local government units). Such powers are crucial for the successful implementation of government programs and for mobilizing the clientelist campaign machine come election time. Consequently, insiders and outsiders are defined in terms of whether one is part of, or excluded from, the patronage networks that have secured the majority in the Batasan (House of Representatives) or the presidential office in the Malacañang Palace.

While there may be competing party labels (read: patronage networks) that vie for power before elections, once elections are over, national politicians typically coalesce around a single dominant party label, commonly referred to as the "rainbow coalition" or "grand coalition," by the subsequent midterm elections, if not before (see table 2).[11] In other words, while a party label matters a lot in the short term, it can slowly "wear off" over time as the old network decays and a new network begins to congeal.

9. Although Duterte won with the smallest winning share of the vote since 1992 (when Fidel Ramos won with less than 24% of the vote), no presidential candidate has won more than 42.1% of the popular vote since the signing of the 1987 constitution.

10. Party labels also function to signal alignment between politicians on "sample ballots" passed out by brokers during vote-buying campaigns.

11. The only midterm election when the majority of legislators did not switch allegiance to the president's party was in 2001. This is because President Estrada resigned in January 2001 and was succeeded by Vice President Gloria Arroyo in an interim capacity. As a result, the dominant party in the Lower House did not switch from Ramos's party to Estrada's but instead jumped on Arroyo's bandwagon.

Table 1. Post-EDSA Revolution Presidents and Their Political Party

	1992	1998	2004	2010	2016
President	Ramos	Estrada	Arroyo	Aquino	Duterte
President's party	LAKAS-NUCD	LAMMP	LAKAS-CMD/KAMPI	Liberal	PDP-LABAN
% of Lower House	20	28	44	17	1
% of winning mayors	24	26	51	14	1

After the 2016 presidential election, former president "Noynoy" Aquino's legacy patronage network under the LP label secured the legislature while Duterte won the presidency. As previously explained, Duterte came into power without being connected to a dominant alliance. In part because of Duterte's norm-defying, populist agenda but also because of his popularity as an outsider, the usual agglomeration of patronage networks did not occur—at least not immediately. Even though a large number of LP legislators publicly pledged support for Duterte, their majority in the House allowed those who ran under the LP banner to have a great deal of sway over the distribution of national funds after the election. LP legislators had both the existing patronage network in place (with LP mayors winning a large share of local elections) and the seats in Congress needed to disproportionately distribute government funds to their local allies in an effort to maintain their base of ground-level support for the next election cycle. At the same time, it created incentives for non-LP politicians—the outsiders in search of a new patron—to seize the opportunity to signal to Duterte their readiness to either align with him should he create a new patronage network or ride on the popularity of his populist agenda in the case that no new president-led alliance was forthcoming.

By midterm elections in 2019, it became clear that Duterte and the popularity of his War on Drugs were not abating. Seizing the opportunity to switch allegiances, most politicians previously aligned with LP abandoned ship to align with Duterte and his party, PDP-LABAN. As a result, PDP-LABAN, which previously held 1% of the seats in the Lower House, occupied the majority of parliamentary seats leading into the 2019 midterm elections. By the end of the elections, LP, which previously held the majority, only occupied 6% of the seats in the legislature.

Local politics and mayors' influence over policing

Collectively, mayors are perhaps the most important political power brokers in the country. Because of the high degree of political decentralization and the entrenchment of local political dynasties (Querubin 2016), mayors exert a great deal of control over the implementation of many national government policies.

Local policing is a domain over which mayors have particularly strong implementation power. Most importantly, mayors have the power to select their municipal police chief from a list provided by the provincial police office, recommend the chief for promotion, or remove the chief at will (Sidel 1999). At a broader level, guidelines from the Department of Interior and Local Government afford mayors "operational supervision and control" over police and the ability to discipline officers in their municipality. Through these wide-ranging oversight powers, mayors essentially hold

Table 2. Party Labels and Dominant Patronage Networks

	1992 Pres.	1995 Mid.	1998 Pres.	2001 Mid.	2004 Pres.	2007 Mid.	2010 Pres.	2013 Mid.	2016 Pres.	2019 Mid.
President	Ramos	Ramos	Estrada	Arroyo	Arroyo	Arroyo	Aquino	Aquino	Duterte	Duterte
President's party	NUCD	NUCD	LAMMP	KAM	KAM	KAM	LP	LP	PDP-LBN	PDP-LBN
Dominant party in Lower House	LDP	NUCD	NUCD	KAM	KAM	KAM	KAM	LP	LP	PDP-LBN

Note. Elections are either presidential (Pres.) or midterm (Mid.). Diagonal arrows represent realignment of the House to the president's party. Horizontal arrows represent when the party in the House initially remains in power during the next presidential cycle. Estrada stepped down in January 2001 and then Vice President Arroyo was sworn in as the interim president. For brevity, we use the following shortened acronyms: NUCD for LAKAS-NUCD, KAM for LAKAS/KAMPI, and PDP-LBN for PDP-LABAN.

the reigns of implementation of large-scale policing initiatives, including the drug war.[12] In his inaugural State of the Nation address, Duterte specifically acknowledged that differing levels of mayoral commitment to the drug war were the most important factor driving its local implementation.[13] Recognizing that local executives have tremendous power over his signature initiative, Duterte and his former police chief, Ronald "Bato" dela Rosa, have put extensive pressure on mayors to fully implement the campaign.

RESEARCH DESIGN

The main empirical question for this study is, How does the insider/outsider status of a municipality's mayor after the 2016 election affect the implementation of the Duterte drug crackdown and related local patronage politics? To answer this, we leverage two identification strategies, DID and RDD, to examine mayoral elections between insider candidates (LP affiliated) and outsider candidates (independent and minor party) that occurred simultaneously with the 2016 presidential election. We primarily examine close elections, for substantive and methodological reasons. Substantively, if outsiders win by a large margin they will feel comfortable pursuing reelection under their own steam and will focus on patronage politics that largely mimic insiders, rather than leaning into the drug war. Methodologically, a close election design allows us to leverage an RDD and makes it easier to make parallel trends assumptions for the DID.

In 2016, the Philippines' more than 1,600 cities and municipalities had mayoral elections, of which 189 (12%) had an insider and outsider as the top two finishers and a margin of victory of less than 5 percentage points.[14] Figure 2 illustrates this universe of cases, which are distributed across all major island groups in the country.

In these elections there is a sharp discontinuity: when candidates win a bare plurality of valid votes, they are elected mayor; if they fall short by one vote, they lose. Political scientists regularly use close elections to measure the causal effects of candidate characteristics, such as ideological extremism (Hall 2015) or gender (Brollo and Troiano 2016). A common approach is the RDD that uses the margin of victory of candidates of a particular type as the running variable (Eggers et al. 2015; Lee 2001). This approach requires that there be no "sorting" of candidates, smoothness at the boundary, and caution that the causal estimates are only valid as a local effect (Cattaneo, Frandsen, and Titiunik 2015; De la Cuesta and Imai 2016).

There has been some disagreement among political scientists regarding the application of the close election RDD approach. Some scholars argue that close elections resemble natural experiments with as-if-random assignment (Lee 2008; Lee and Lemieux 2010), and as such pretreatment outcomes and covariates should be balanced between the comparison groups. Studies by Caughey and Sekhon (2011) and Grimmer et al. (2011) find that this may not always be satisfied in close elections. Responses by De la Cuesta and Imai (2016), Eggers et al. (2015), and Snyder, Folke, and Hirano (2015) note that as-if-random assignment is not in fact required for identification for an RDD, and Eggers et al. argue that the "assumptions behind the RD design are likely to be met in a wide variety of electoral settings" (2015, 259).

In light this of this debate, as well as for robustness, we implement both a nonparametric RDD (Calonico, Cattaneo, and Titiunik 2014) and a two-period DID estimator (Bertrand, Duflo, and Mullainathan 2004). The DID approach has identifying assumptions distinct from the RDD's, relying mainly on parallel trends. In addition to showing pretreatment balance, we find (see app. sec. A.2) parallel pretrends, which helps bolster this claim. We are also able to use the DID to examine how the effects vary in competitive versus noncompetitive races (as a placebo test).

We find similar results with both estimators, giving greater confidence that the results we present reasonably reflect reality. To bolster the research design, we carry out a range of diagnostics and placebo tests, including two sorting tests (Cattaneo, Jansson, and Ma 2018; McCrary 2008), pretreatment covariate and baseline outcome balance tests, a placebo test on noncompetitive elections, and varying dates for the two-period cutoff. We also use varying bandwidths for the RDD and a "competitive election" dummy, present an analysis of covariance (ANCOVA) analysis, and reshape the outcome variables in various ways (levels, per capita, log transformation).

For our main analysis, we take advantage of pretreatment outcome data to reduce the variance of our estimates. The divider for the two periods is July 1, 2016, when President Duterte and the newly elected mayors were sworn into office.[15] For the RDD we use the preperiod outcome data by differencing the dependent variable, that is, subtracting the pre-Duterte outcome from the post-Duterte outcome (Lee

12. This sentiment was also expressed to the authors in interviews with several provincial and municipal police chiefs in the Bicol Region.

13. See contemporaneous news coverage on *Rappler* by Cupin (2016a, 2016b).

14. Margin of victory is defined as the absolute value of the vote percentage margin between the LP and the top-performing outsider candidate. We define outsider as any candidate who is not on the LP slate. The handful of cases where the LP did not have a finisher in the top two are excluded.

15. The lame duck period in the Philippines is seven weeks, spanning from May 9 to June 30. In table A.12 we show that the results are robust to including the lame duck in the postperiod.

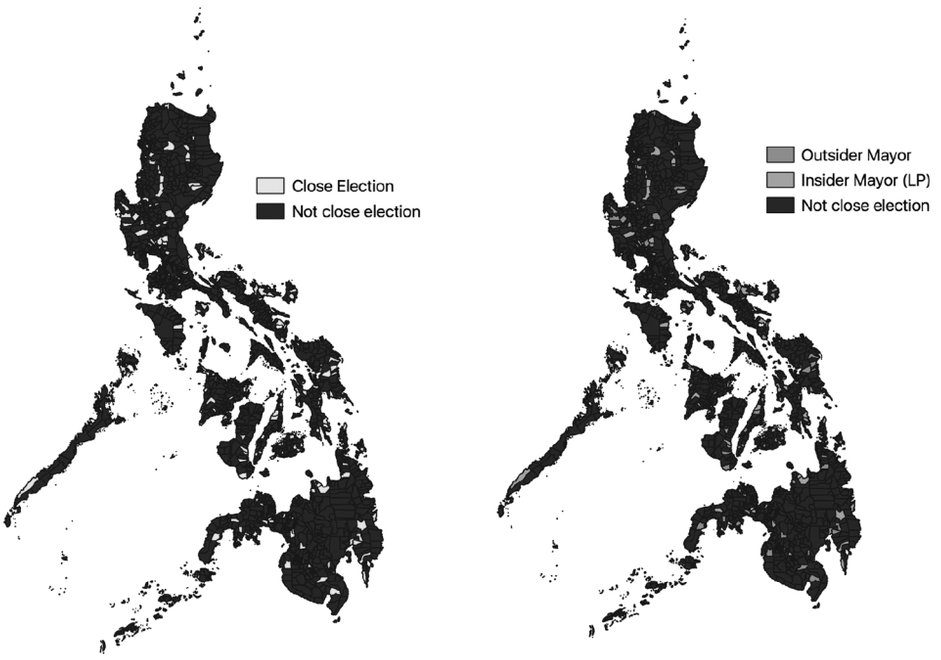

Figure 2. Close mayoral elections, 2016 (within 5 percentage points)

and Lemieux 2010, 297). More details and justification are presented below in the estimation subsection. The DID approach incorporates baseline outcome data in the first period. In addition to reducing the variance through the use of pretreatment outcomes, DID has the helpful benefit of relaxing the as-if-random assumption, requiring instead only parallel pretrends for identification, in addition to positivity and the stable unit treatment value assumption (SUTVA; Bertrand et al. 2004; McKenzie 2012).

We consider several potential threats to inference given the research design, context, and topic of inquiry. For example, spatial spillovers of criminal behavior, police activity, or political learning across municipalities would each cause SUTVA violations. We examine this possibility in detail in appendix section A.4 and find no evidence that spatial spillovers are driving or confounding the results. It turns out that few of the municipalities in our close election sample neighbor one another, limiting the scope for such violations. Two other potential threats include politicians sorting across the discontinuity or measurement error (e.g., misreporting by police or news sources) that is correlated with the winners of the close mayoral elections in 2016. In the next section, we discuss various potential data irregularities and argue that they are not likely to be associated with the intervention of interest for this study and thus unlikely to discredit our estimates.

Last, we use the DID approach to test whether there are differences between insiders and outsiders in noncompetitive races. If we found similar effects in the noncompetitive sample, this would cast doubt on our main hypothesis, as these candidates should not be incentivized to engage in the drug war in the same way that outsiders in close margin elections are.

Data

Bantay Krimen. One of two key dependent variables in our analysis is measured using the Bantay Krimen (Crime Watch) data set of police blotter reports published online by the PNP. The data have been posted in real time using blotter reports collected by municipal police stations and organized by provincial police offices. We scraped the data underlying the maps dating back to late 2015, six months before Duterte's election. Recorded incidents are broken down into seven main categories: (1) drug-related crimes, (2) theft, (3) assault, (4) homicide, (5) robbery, (6) rape, and (7) vehicular accidents. Over the time period of this study, 994,212 crimes were recorded in the data set, including 120,768 drug-related incidents. We use the number of drug-related incidents as a measure of the degree to which local police offices implemented Duterte's drug war. Reporting drug-related incidents follows set guidelines articulated in the "Revised PNP Manual on Anti-illegal Drugs Operations and Investigation" (2014, https://pro9.pnp.gov.ph/index.php/downloads/send/5-pnp-manuals/278-revised-pnp-anti-drugs-manual), all of which require active PNP operations.[16]

16. To be classified as drug related, the incident must fall into one of the following seven subcategories: (1) buy-bust operations, (2) search and seizure

In figure 3, we analyze the nationwide trends in drug-related police blotter reports to ascertain whether the data follow what we know to be the general contours of the War on Drugs. Immediately after the Duterte transition team began its work in June 2016 there was a large uptick in the number of drug-related blotter reports. In October 2016, a South Korean businessman named Jee Ick-joo was kidnapped and held for ransom, before being killed by what turned out to be PNP officers involved with the drug war. This lead to an investigation and eventually the first "pause" in the drug war ordered by the president, which corresponds with a sharp drop off in drug-related incidents in our data.[17] Several months later, Duterte restarted the drug war in earnest with Operation Double Barrel Reloaded, leading to the highest rate of PNP drug-related incidents during his tenure. In October 2017, Duterte instituted a second "pause" to the drug war, ordering the PNP to disband its antidrug units and cease active operations after the killing of three teenagers led to extensive public outcry (Maresca 2017). Finally, Duterte ordered local PNP offices to reconfigure their antidrug units and restart operations several months later. The fact that the ebb and flow of incidents in our data corresponds with these well-known patterns of the drug war gives us greater confidence that the data are reasonably capturing activities on the ground.

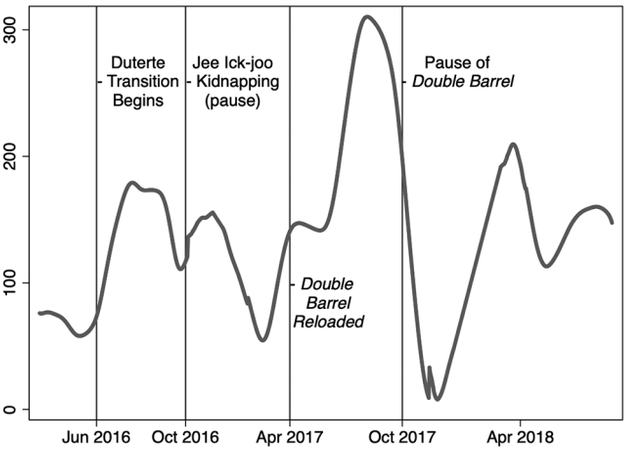

Figure 3. Drug-related police blotter reports nationwide. Color version available online.

ACLED. One concern with using data from official police reports is that there may be an opportunity for municipal police offices to manipulate reported crime rates. While an increase in the rate of drug-related crimes may represent actual aggressive implementation of the drug war, it may also be indicative of police chiefs (or mayors) who falsely display more aggressive implementation.

To mitigate this concern, we use a second source of outcome data—ACLED—to further validate the results. ACLED is a news-based event aggregator that provides georeferenced data on violent incidents around the globe.[18] ACLED codes incidents' timing, location, and content and has tracked drug-related incidents in the Philippines since January 1, 2016, about four months before President Duterte won the 2016 election and six months before he took power. Using the global positioning system (GPS) coordinates from the data set, we are able to compute, by municipality, whether a drug killing took place, as well as the estimated number of fatalities. Overall, we find that the contours of the drug war captured by ACLED closely align with the Bantay Krimen data.

The ACLED data set on the Philippines drug war includes two primary types of incidents: (1) the "killing of drug suspects by either government security forces (police/military) or by 'vigilantes'" and (2) "inter-gang violence." The vast majority of the incidents reported (>90%) are police or vigilante killings.[19] In all, the ACLED data set recorded 4,297 incidents over the period of this study, the vast majority of which involved verified fatalities.[20] The nature of these incidents means that they are virtually impossible for the police to fake.

Importantly, the ACLED data set distinguishes between drug war killings by police and those by vigilantes, which helps us to test our hypothesis that police are being encouraged by mayors to increase effort. This also helps us to address a second alternative explanation, which is that outsider mayors are simply less capable of restraining the police from harsh implementation of the drug war. If this were the case, we would also expect outsider mayors to be less capable of restricting the activities of vigilantes wishing to dole out extrajudicial justice.

Our view is that ACLED's count of fatal drug killings is almost certainly an undercount, but it covers an important subset of incidents in a way that is unrelated to the insider or outsider status of the mayor at the time. We also hedge our bets by using, as our primarily ACLED outcome, a binary

by virtue of a warrant, (3) marijuana eradication, (4) financial investigation, (5) controlled delivery, (6) clandestine laboratory, and (7) *inflagrante delicto* (i.e., unplanned operations). Voluntarily surrender by drug suspects is not included in these incidents and is recorded separately by the PNP and the Philippine Drug Enforcement Agency.

17. A brief decline in public opinion associated with this event can be see in fig. 1.

18. See https://www.acleddata.com/.

19. See https://acleddata.com/acleddatanew/wp-content/uploads/dlm_uploads/2018/04/Coding-of-Drug-Violence-in-the-Philippines_Final-1.pdf.

20. Tracking the most severe instances of violence related to drug cases is in keeping with ACLED's mission of measuring armed violence.

measure of whether there were any fatal incidents reported in a municipality during the period in question, rather than a count of all incidents (we include counts of fatalities in the appendix). This separates the municipalities more sharply than comparing the number of incidents in the data set.[21]

Public works procurement data. An important mechanism of our theory is that outsider mayors' lack access to the traditional resources used to mobilize electoral support (hypothesis 2). To observe whether patterns of patronage distribution align with our hypothesis, we use newly available, granular data on civil works contracts from the online civil works monitoring system of the Department of Public Works and Highways (DPWH). These data detail where the contract was implemented, which firm won the contract, the date the contract was awarded, the value of the contract, the type of public works, and whether the spending was for repairs of existing infrastructure or for new construction. The data set spans from 2003 to the present.

We analyze four important kinds of infrastructure projects—roads, flood abatement, schools, and health facilities—in addition to the combined DPWH budget that a municipality receives. Together those projects make up 95% of infrastructure spending at the municipal level. We separate procurement spending into two main types, corresponding to the ease with which local politicians can skim the budget. Roads and flood abatement projects are well known to be "high corruption" budget categories, whereas it is far more difficult to extract money from the construction of schools and health facilities (Ramos 2019). We expect the results to show that being an insider garners much greater access to funds in high corruption procurement categories. In appendix sections A.7 and A.8 we include a stylized narrative of the procurement, distribution, and skimming process and explain the data quality checks that we carried out (including random spot checks of more than 200 bids).

2010 census. Under the strictest set of assumptions for our research design, we would expect that municipalities where outsider mayors barely won or lost would be similar across pretreatment covariates that could account for differential implementation of the drug war. To rule this out, we look for covariate balance on measures captured in the 2010 Census of Population and Housing conducted by the Philippine Statistical Authority (PSA).[22] The survey collects information at the household level for more than 92 million Filipinos. We obtained these data at a municipal level from the PSA, allowing us to compare, within our sample of close mayoral elections, the municipalities that narrowly elected a LP mayor and those that elected a minor party/independent (nonestablishment) mayor. Table A.31 shows the summary statistics for 187 of the 189 municipalities within our sample.[23] Importantly, we find that there are no differences between municipalities with LP or outsider mayors elected in 2016 in terms of their background characteristics.

2016 election data. To measure our key independent variable, outsider status (i.e., lack of mayoral alignment with establishment politics), we use precinct-level data (aggregated to the municipal level) from the 2016 Philippine elections. Voter turnout in the election was around 82%. We create two main categories of mayors based on their political party.[24] First, we designate all mayors who ran under the LP party label as being aligned with establishment elements of Filipino politics. Approximately 50% of all congressmen and 46% of mayoral winners ran under the LP label. Duterte ran under PDP-LABAN, a party label revived from the late 1980s.[25]

Unlike in previous elections, the overwhelming majority of these outsider mayors are from neither the winning president's party (PDP-LABAN), who won just 19 of 1,614 mayoral races, nor another dominant opposition party. Rather, they ran as independents or were associated with one of numerous smaller party labels (see table A.32 for details).

Among the approximately 1,600 mayoral elections, we designate those decided by less than a 5% vote margin as "competitive" for the purposes of the DID analysis.[26] A total of 189 elections fall into this category. Among those, slightly more than half were won by LP candidates and slightly less than half were won by outsider candidates. Figure 4 displays the density of mayoral races by the vote share margin for the outsider candidate. We see that there appears to be no

21. Additional discussion of the ACLED data set is in app. sec. A.8.

22. The PSA is considered a professional, nonpartisan agency that carries out census data collection using techniques inherited from the US Census Bureau, which helped found its predecessor. The US government carried out the censuses of 1903, 1918, and 1939, before turning things over to the Bureau of the Census and Statistics of the newly independent Philippine government. Given our interactions with the PSA, we have no reason to believe that the 2010 census figures would be affected by expectations of who would win narrow 2016 mayoral elections, in which case measurement error would not confound our results.

23. Boundary changes between 2010 and 2016 affected the matching for two municipalities.

24. See discussion of how party labels are useful for identifying insiders in the short term in the appendix.

25. To ensure that any findings are robust to being driven by a particular outsider party, we report a specification that iteratively drops each smaller party and independents, finding that the results remain (see tables A.13 and A.14).

26. In table A.24 we show that the results are robust to a variety of competitiveness margins.

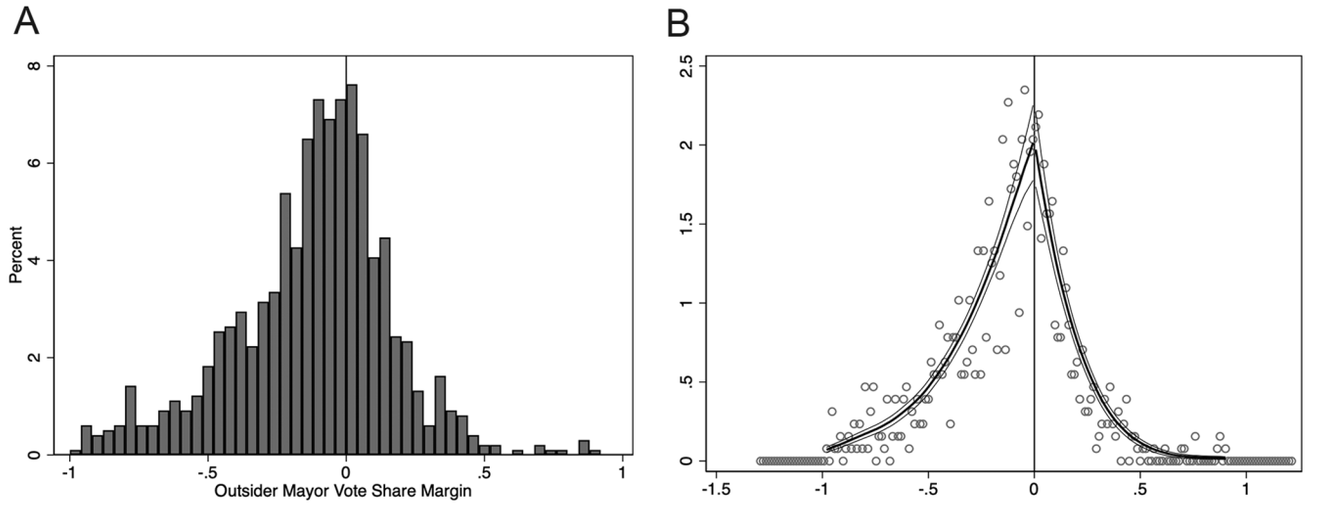

Figure 4. Tests of politician sorting: *A*, histogram of the outsider vote share margins; *B*, McCrary (2008) sorting test using McCrary's Stata package

heaping along the discontinuity; that is, neither LP nor outsiders are able to "sort" into winning (Barreca, Lindo, and Waddell 2016; McCrary 2008). We also fail to reject the null of no manipulation using Cattaneo et al.'s (2018) test.

Estimation

To implement the two-period DID estimator, we collapse the crime blotter reports and other time series data into pre and postperiods, divided by President Duterte's first day in office: July 1, 2016.[27] Then, using ordinary least squares, we estimate

$$Y_{it} = \beta_0 + \beta_1 M_i + \beta_2 P_t + \beta_3 M_i \times P_t + \varepsilon_{it},$$

where Y is the outcome of interest, say drug-related blotter reports per capita or an indicator of a drug-related killing, in municipality i in period t; M is an indicator for outsider mayors, set to 1 when the mayor elected in 2016 is not from the LP; P is an indicator for the post-Duterte period, which becomes 1 after July 1, 2016, 0 before; β_1 and β_2 are equivalent to municipality and period fixed effects; and ε is the error term. Municipality fixed effects are absorbed through demeaning, and standard errors are clustered by municipality.

For the regression discontinuity estimates, we take a first difference of the outcomes from the two-period panel to create a single-period "differenced" dependent variable. This allows us to maintain the variance reduction advantages of the panel data while using an RDD, as per Lee and Lemieux (2010). Differenced RDD approaches are increasingly common, including in studies on fiscal rules in Italy (Grembi, Nannicini, and Troiano 2016) and infrastructure investments in India (Shenoy 2018). The interpretation of the parameter does not change with the inclusion of the differenced outcome variable; as put by Lee and Lemieux (2010, 297), "performing an RD analysis on Y minus its lagged value should also yield the treatment effect of interest. The hope, however, is that the differenced outcome measure will . . . lower the variance in the RD estimator."

We follow Calonico et al. (2014) in employing a bias-corrected local linear polynomial within the Calonico, Cattaneo, and Titiunic (CCT) optimal bandwidth (see also Calonico et al. 2018). We implement it using the rdrobust package in Stata (Calonico et al. 2017).[28] The CCT optimal bandwidth varies on the basis of the outcome in question and more heavily weights observations that are close to the boundary using a triangular kernel. On average, the sample in the RDD models includes elections with a margin of victory under 17 percentage points.[29]

RESULTS

In this section we present the primary results of our study and an analysis of the political mechanisms driving the effects we find, followed by several placebo tests. We follow this with a discussion of potential alternative explanations for our findings, ruling them out in favor of our preferred interpretation. In the appendix, we report a range of additional results, including alternative empirical specifications, additional outcome variables, tests of spatial spillovers, diagnostics, and narrative information about our data and the case.

We begin by illustrating the broad patterns in the data, before carrying out our regression analyses. In figure 5*A*, we

27. We show in the appendix that the results are robust to using the first day of the Duterte transition (June 1, 2016) or May 9, when his opponent conceded, as an alternative binning dates.

28. For robustness we show a range of alternative RDD choices, including bandwidths and bias correction, in app. sec. A.1.11.

29. Among the 10 RDD specifications in tables 3, 4, and 5, the average bandwidth is 0.169.

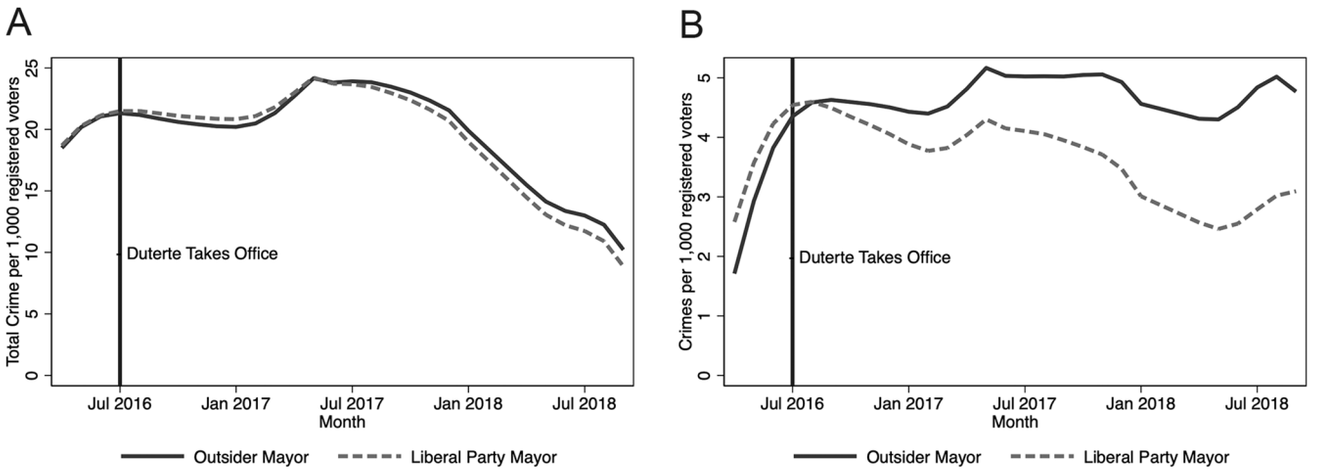

Figure 5. Police blotter reports: *A*, total reports; *B*, drug related. Patterns displayed are from the 189 municipalities with competitive mayoral elections in 2016 (<5% margin of victory). All crime excludes "pure" auto accidents (those that are not classified as homicide or other crime, e.g., hit and run). Drug-related incidents are defined as blotter reports whose primary designation is RA-9165, referring to the Comprehensive Dangerous Drugs Act of 2002. Color version available online.

observe that following Duterte's accession to the presidency, there is no divergence in police blotter reports of total crime between narrowly winning insider mayors from the LP and outsider mayors. Overall crime rates were stable through Duterte's first year and a half in office, with the exception of a slight increase during Operation Double Barrel Reloaded in mid-2017.

In contrast, figure 5*B* shows an immediate and widening gap in drug-related blotter reports between outsider and LP mayors following Duterte's election. Although both types of municipalities experience an uptick during Double Barrel Reloaded, drug-related crime reports are consistently higher postelection in municipalities where outsider mayors narrowly defeated the LP candidate.

Our regression estimates confirm a large and significant difference between outsider- and LP-led municipalities in their reporting of drug-related crime. Columns 1 and 5 in table 3 show that in municipalities with an outsider mayor, there are about 40% more drug-related crimes reported during the postperiod than those with insider mayoralties. The effect size ranges from 0.36 to 0.46 per 1,000 adults, depending on whether one uses the DID estimator or the regression discontinuity.[30] At the same time, we do not observe any significant differences between insider and outsider mayors for any other kinds of crime recorded in police blotter reports, as seen in columns 2–4 and 6–8.[31] This includes theft, assault, homicide, robbery, rape, car accidents, car theft, or total crime. We also find no differences between insiders and outsiders in municipalities that did not have close elections (greater than 5 percentage point margins of victory).[32]

Figure A.2 (figs. A.1–A.6 are available online) illustrates the RDD effects graphically, showing the significant jump at the boundary. This chart also indicates how the differences between outsiders and insiders appear to decay as the margin of victory gets larger. The null effect for noncompetitive races, further developed in table A.9, demonstrates our proposed scope condition, where outsiders in close races are expected to respond to the drug war but those outside would not.

Proceeding to the results based on ACLED's coding of news events, we find similar evidence. As per the DID estimate in column 2 of table 4, the probability of a fatal drug war incident where police kill a drug suspect is 16 percentage points higher in outsider municipalities, a more than 60% increase.[33] We find, however, no difference in the probability of a vigilante-instigated fatal incident in the municipality (see col. 3). In all cases, the RDD estimates (displayed in fig. 6) are consistent with the DID results.

Political drivers of the drug war

What explains why outsider mayors prosecute the drug war more aggressively than establishment mayors? We hypothesized that outsider mayors will allocate further effort to the drug war to substitute for an inability to generate pork for

30. In the appendix, we show that these results hold for a range of alternative specifications, including DID with a 2% margin, ANCOVA with pretreatment covariates, and different RDD packages.

31. Appendix sec. A.1.1 shows the effects for each crime category separately, using both DID and the RDD, finding nulls for all but drug-related crime.

32. See details in table A.9.

33. The estimate for the RDD is even larger: 23 percentage points.

Table 3. Effect on Post-Duterte Crime Rates (Police Reports)

	Drugs (1)	Assault (2)	Theft (3)	Total (4)	Drugs (5)	Assault (6)	Theft (7)	Total (8)
DID estimate	.36*	−.13	−.04	.05				
	(.18)	(.24)	(.13)	(.43)				
RDD estimate					.46*	−.14	−.07	−.01
					(.21)	(.28)	(.16)	(.49)
LP post-Duterte mean	.95	1.57	.94	3.98	.72	1.21	.79	3.04
N	378	378	378	378	494	589	555	626
Clusters	189	189	189	189				
Optimal bandwidth					.158	.213	.194	.234

Note. Columns 1–4 report the DID interaction term (β_3) and include municipality and period fixed effects. SEs clustered by municipality are in parentheses. Sample: municipalities with very close (<5%) margins of victory. Columns 5–8 report bias-corrected local linear polynomial RDD with CCT bandwidth; outcomes are differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.
* $p < .05$.

their municipalities through public procurement, a critical part of patronage politics in the Philippines (Bohlken 2018; Ravanilla 2017). Because they are outside the establishment political network, they are both less likely to be connected to national-level politicians and less likely to be well versed in securing funds from the center. Indeed, as shown in figure 7, we find that in the post-Duterte period (2016–18), outsider mayors were on average much less able to secure public procurement for their municipalities than LP mayors. Specifically, these outsiders attracted only about half as much spending per capita on roads and flood abatement projects, two categories of projects that are notorious for the scale of their kickbacks and patronage (Ramos 2019; Ravanilla 2019). For health and educational construction projects that figure less prominently in politicians' skimming strategies (although they are not immune to corruption), we see no difference between insider and outsider mayors.

Table 5 shows the effects in greater detail. On average, insider (LP) mayors were able to secure about 7.7 million Philippine pesos (about US$150,000) per 1,000 population in public works spending during the post-Duterte period, 40% higher than the 5.5 million that municipalities with outsider mayors attracted. As seen in columns 2 and 5 of table 5, these differences come almost entirely from the "easy corruption" categories of roads and flood abatement. In contrast, we see no difference in procurement levels for schools and

Table 4. Effect on Fatal Drug War Incidents (ACLED)

	Any Fatal Incident (1)	PNP Fatal (2)	Vigilante Fatal (3)	Any Fatal Incident (4)	PNP Fatal (5)	Vigilante Fatal (6)
DID estimate	.14*	.16*	−.02			
	(.07)	(.07)	(.06)			
RDD estimate				.21*	.23**	−.03
				(.09)	(.08)	(.07)
LP post-Duterte mean	.30	.25	.19	.24	.20	.21
N	378	378	378	430	426	558
Clusters	189	189	189			
Optimal bandwidth				.133	.132	.197

Note. Columns 1–3 report the DID interaction term (β_3) and include municipality and period fixed effects. SEs clustered by municipality are in parentheses. Sample: municipalities with very close (<5%) margins of victory. Columns 4–6 report bias-corrected local linear polynomial RDD with CCT bandwidth; outcomes are differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.
* $p < .05$.
** $p < .01$.

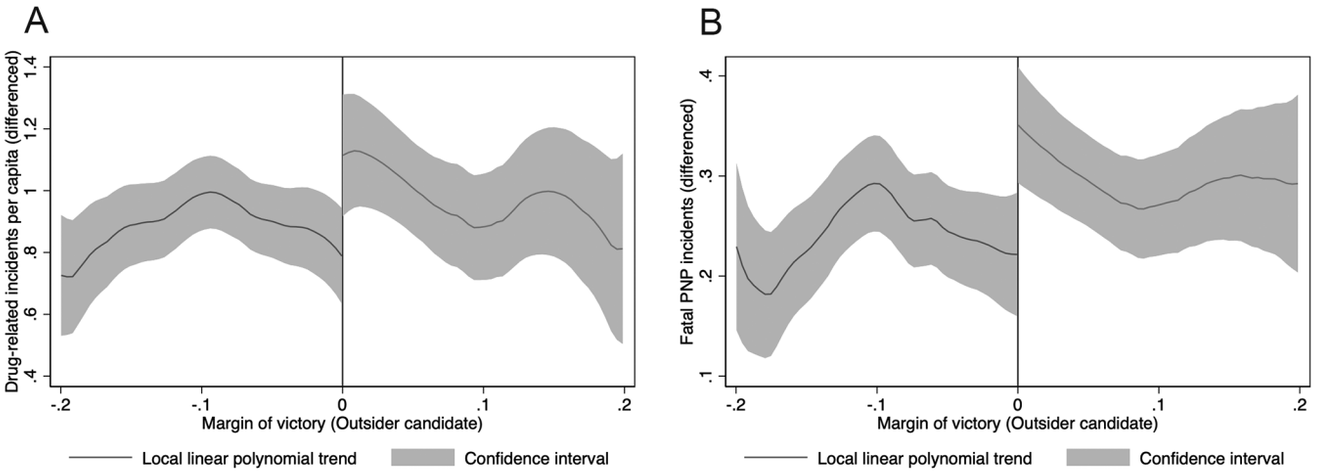

Figure 6. RDD plots for police blotter reports and ACLED PNP fatal incidents, using CCT bandwidth, local linear polynomial regression, and biased-adjusted CCT confidence intervals. Drug-related incidents (*A*) are defined as blotter reports whose primary designation is RA-9165, referring to the Comprehensive Dangerous Drugs Act of 2002. Fatal PNP incidents (*B*) are those in which PNP officers killed a drug suspect.

health facilities that, although helpful public goods, are very difficult to steer toward the type of kickbacks and clientelistic spending that characterize local politics in the Philippines.[34]

Electoral consequences

Procurement corruption matters for local mayors in large part because these skimmed funds are used for mobilizing the clientelist campaign machine: vote buying, paying political brokers and village chiefs, electioneering expenses, and so on (Canare, Mendoza, and Lopez 2018; Mendoza et al. 2016).[35] In previous election cycles, insider mayors with access to funds that greased the patronage machine were far more likely to maintain their hold on local political power. During the 2013–16 mayoral cycle (the one just before our study's sample), we find that insider incumbents were about 17 percentage points more likely to be reelected than outsider mayors.[36]

In May 2019, the Philippines midterm election took place, pitting nearly all the incumbent mayors within our narrow sample against challengers. Election law restricts a mayor to three consecutive terms, so some mayors were obliged to step aside, in nearly all cases running for a different local or national office. Using the same regression discontinuity framework, table 6 compares 2019 election outcomes for municipalities with an insider mayor versus an outsider mayor.[37]

We focus in particular on incumbent performance and the extent to which incumbent mayors switch parties, especially to President Duterte's PDP-LABAN party. In table 6 we see in column 1 that outsider mayors (defined as such during the 2016 election) performed about 5 percentage points better than former insiders. The typical incumbent in 2019 earned about 58% of the vote, so this represents about a 9% reduction.

Nearly 80% of mayors switched parties from 2016 to 2019, reflecting the realignment that almost always takes place during midterm elections.[38] Table 6 column 2 shows that insiders were 11 percentage points more likely than outsiders to change party (at the discontinuity), recognizing that their former LP credentials were no longer as valuable as in the past. Across the entire country, 95% of LP mayors switched parties, while 76% of outsider mayors made a switch, although column 3 suggests both types of mayors switched to Duterte's PDP-LABAN at similar rates. Our theory predicts that this type of party switching, typical of Filipino elections, will be viewed as "cheap-talk" by the Duterte regime in the absence of more aggressive implementation of his policy agenda. Indeed, even though the rates of party switching were similar, in column 4 we see that outsiders were dramatically

34. See RDD plots for these outcomes in fig. A.2.

35. These projects could presumably also be used by mayors for credit claiming (see, e.g., Cruz and Schneider 2017). However, if this were the case we would expect insiders to have greater funding for schools and education, rather than only roads and flood abatement.

36. This uses a 5% close electoral margin in 2013, with the same LP/non-LP breakdown. See details in app. sec. A.1.14.

37. Because comparable electoral outcomes are only available for 2019, with the exception of incumbent vote share, we cannot use the DID setup for this section of the results. We difference the incumbent vote share in the same way as previous outcomes.

38. Refer back to table 2 for an illustration of this dynamic.

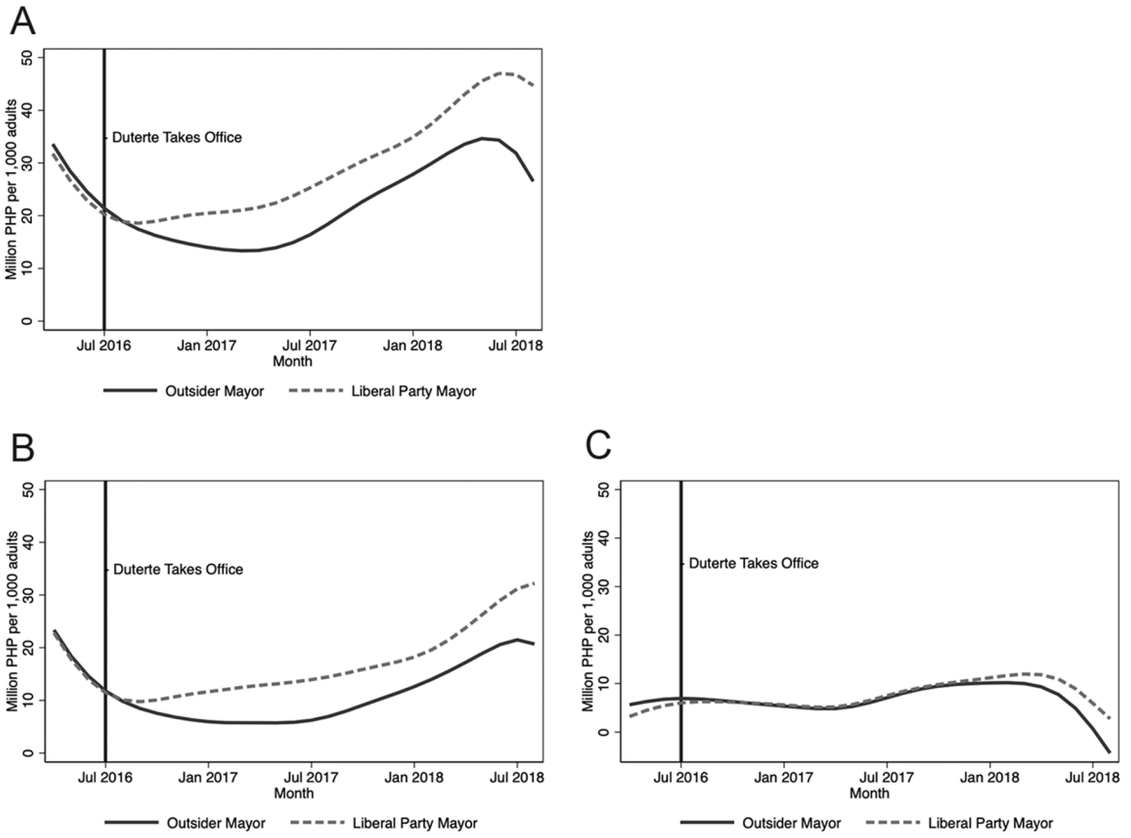

Figure 7. Public works procurement amounts per month: *A*, all public works; *B*, roads and flood abatement; *C*, schools and health facilities. Among 189 municipalities with very close results (<5% margin of victory) for the 2016 mayoral election. Procurement for public works includes roads, schools, health facilities, repairs. Color version available online.

Table 5. Effect on Public Works Procurement

		Corruption			Corruption	
	Total Procurement	Easy	Difficult	Total Procurement	Easy	Difficult
	(1)	(2)	(3)	(4)	(5)	(6)
DID estimate	−2.22*	−1.98**	−.13			
	(.90)	(.66)	(.40)			
RDD estimate				−3.62**	−3.03**	−.61
				(1.16)	(.93)	(.46)
LP post-Duterte mean	7.7	4.3	2.3			
N	378	378	378	450	426	491
Clusters	189	189	189			
Optimal bandwidth				.143	.132	.156

Note. Outcomes are in millions of Philippine pesos (about 50 pesos per US dollar) per 1,000 population. Columns 1–3 report the DID interaction term (β_3) and include municipality and period fixed effects. SEs clustered by municipality are in parentheses. Sample: municipalities with very close (<5%) margins of victory. Columns 4–6 report bias-corrected local linear polynomial RDD with CCT bandwidth; outcomes are differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin. Easy corruption = roads and flood abatement; difficult corruption = schools and health facilities.

* $p < .05$.

** $p < .01$.

Table 6. Effect on 2019 Local Elections

	Incumbent Vote Share (1)	Switched Party (2)	Switched to PDP-LABAN (3)	PDP-LABAN Is Winner (4)
RDD estimate	.05^{+}	−.11*	−.04	.19*
	(.03)	(.06)	(.09)	(.09)
LP mean	.09	.95	.46	.27
N	426	540	506	518
Optimal bandwidth	.164	.227	.214	.171

Note. Bias-corrected local linear polynomial RDD with CCT bandwidth. SEs clustered by municipality are in parentheses. Column 1 is differenced incumbent vote share (2016 vs. 2019). Columns 2–4 are indicator variables.

$^{+}$ $p < .10$.

* $p < .05$.

more likely to win as a PDP-LABAN candidate than former LP mayors, consistent with our hypothesis 4.

Our research design, unfortunately, does not allow us to identify whether it was the specific conduct of the drug war that helped outsider mayors successfully switch to and win as PDP-LABAN candidates in 2019. There could be other mechanisms—although we have ruled out pork barrel spending via public works—such as the population endogenously becoming more favorable to outsiders due to the popularity of President Duterte. That said, the evidence is consistent with an electoral bump from aggressive drug war participation that led the new Duterte machine to throw resources behind these candidates.

Diagnostics and placebo tests

We conduct a number of robustness tests to validate our research design. First, we carry out placebo tests demonstrating that the alignment of the mayor has no relationship with pre-Duterte police blotter reports or pretreatment municipality covariates collected from the 2010 census (see details in tables A.22 and A.23).[39]

In order for the DID specification to be valid, we must also assume parallel trends in our outcomes of interest. Although this assumption cannot be proven, evidence of parallel pretrends is a useful piece of evidence in its favor. In appendix section A.3 we show that our main outcomes—drug-related crime reports, total crime reports, and public works procurement amounts—are moving in nearly exact parallel during the period before Duterte takes office. The appendix also contains robustness tests that exclude Metro Manila, change date and electoral margin cutoffs, iteratively drop small parties, implement alternative RDD specifications, employ difference in means and ANCOVA, test for personal differences in candidates, graphically explore pretrends, check for spatial spillovers, and test clustering standard errors at different levels.

Alternative explanations

Readers might be concerned about several alternative interpretations for the empirical regularities we uncover. For one, perhaps drug war conduct and patronage reflect generic partisan alignment or policy choice by the LP rather than the more complicated insider/outsider dynamic we describe. We find this to be unlikely because of the fact that the ideological and programmatic differences between PDP-LABAN and the LP are virtually nonexistent, as evidenced by the ease with which politicians switched parties postelection (see Sta. Ana 2019). This is consistent with Filipino politics at large, where partisan labels are historically uncorrelated with candidates' ideology (Hicken 2014). In addition, exceedingly few mayors during the 2016–19 cycle were copartisans with Duterte or chose to adopt his ideological platform during the campaign. Of the 189 close mayoral elections in our main sample, just six winning mayors come from Duterte's PDP-LABAN. Not surprisingly, when we drop those from the sample, the results remain unchanged.

Another account is that results we find may be driven by LP mayors benefiting from the drug trade more than outsider mayors. If LP mayors in 2016 get a more lucrative cut of the drug trade due to their insider status, they would have more to lose from a crackdown. Once outsiders win office, however, we would expect them to over time gain access to rents, including illegal drug payments. With that in mind, we would expect the gap between insiders and outsiders in terms of drug raids to initially be quite large but then converge over time as outsiders gain access. In contrast, as seen in figure 5, there is an initially small but then growing divergence

39. We find close to an exact balance across treatment and control municipalities on a range of politically important characteristics, including demographics, ethnic and religious background, and household assets.

between the two types of mayors. At the same time, we think of illegal rents from the drug trade as akin to illegal rents from procurement-related corruption, so this is in some sense just a different mechanism for the same insider versus outsider dynamic we describe.

Last, imagine that PNP officers want to aggressively implement the drug war because they expect to be more likely to be promoted if they comply with the president's policy. Insider mayors, as compared to outsiders, might have either greater desire or capacity to restrain their local PNP chief from excesses relative to their outsider counterparts. We think a story in which LP mayors have a greater desire to restrict the drug war to be a less likely, but still reasonable, mechanism for the theory we advance: by restraining the police less, outsiders show their loyalty to the president.[40] At the same time, we view an alternative in which insiders have a greater capacity to restrict the drug war to be unlikely given our finding that vigilante killings are just as likely in municipalities governed by insider mayors.

CONCLUSION

We often think of populist politics as being driven by national figures who can uniquely capture a country's imagination with norm-defying, antiestablishment policies. But once in power, populist leaders must deliver on policy proposals that are not only deemed at odds with establishment elites' preferences but also undermine basic democratic institutions and rights. It is thus not immediately clear how outsider national leaders can implement their signature policies and reshape political institutions to fit their interests. In this study, we show that local political incentives turn out to be highly influential in how a signature agenda item is implemented. Far from the lofty rhetoric, we find that local outsiders, who struggle to access patronage resources, enthusiastically implement an outsider leader's signature policy in order to gain the upper hand come reelection time.

Examining the Philippines, we find that outsider mayors are significantly disadvantaged in the distribution of pork, specifically in disbursement categories that are ripe for corruption: road contracts and flood abatement projects. While insiders get about 4,300 Philippine pesos (roughly US$86) per resident in road and flood money during the first term of the Duterte era, outsiders get just 1,300 pesos per person (about US$26).[41] In turn, outsiders choose to implement Duterte's drug war with abandon: municipal police stations with outsider mayors report 40% more drug-related incidents and have 60% greater probability of killing a drug suspect than those in municipalities with insider mayors. The efforts of local outsiders are rewarded in subsequent elections—they are able to align themselves with Duterte and are able to win reelection at a higher rate than otherwise, often under Duterte's PDP-LABAN party label.

After three years of the Duterte regime, the initial risk taken by local outsiders appears to have paid off. Politicians who were originally outsiders have now become insiders. As copartisans with a president who remained popular, these mayors were able to develop a new patronage network oriented around Duterte, the new political gravitational center. This network on its face reflects clientelistic networks of the past, with a grand coalition in the Philippine Congress that will be expected to direct resources to allies at the lower level going forward.

From a policy perspective, our findings suggest a somewhat controversial upshot: limiting access to corruption and patronage means that outsider local politicians have a strong incentive to join in when a populist leader emerges. In the case of outsider mayors in the Philippines, for example, allowing them to have greater access to pork and claim credit for government- or foreign-aid projects (e.g., Cruz and Schneider 2017) may lessen their incentive to implement a brutal drug war.

For the emerging Duterte political alliance, we expect that governing under a unified PDP-LABAN banner in the second half of his term will start to look like a new political insider network. Despite all the bloodshed, the head of the Philippines drug enforcement agency has said that as of 2020 the drug supply is largely unchanged, and drug-running groups continue to operate. Initial indications are that the administration is taking their foot off the drug war pedal, even going as far as to briefly appoint Vice President Leni Robredo (an opposition politician) as the point person for the War on Drugs. We see the patronage network reverting back to standard operating procedures: pork barrel politics and clientelism—an unsavory but decidedly less violent political equilibrium.

This suggests that having compiled a new network of insiders, Duterte may now focus on more traditional politicking ahead of the next election, which some political observers expect to feature his daughter as a successor candidate. Ironically, even though the violent drug war did not achieve its stated policy goal—eliminating the methamphetamine problem in the Philippines—the program provided a costly method for local mayors to signal loyalty to Duterte. Having now built a new insider network, in part via the drug war, Duterte can try to use strategies of traditional dynastic politics to get allies

40. Because of the prevailing political winds—the drug war polls very well among civilians—too strongly restraining the police from pursuing the highly popular drug war seems at odds with insider mayors' reelection incentives, however.

41. Using the RDD estimate from table 5.

elected, which may help achieve some of his longer term political goals, such as federalism, redirection of government resources to Mindanao, and a greater law-and-order focus in society.

These findings speak to a broader dynamic in multiparty democracies. When an outsider wins the top office, insiders have an option to rest on their laurels and exploit existing networks of access to maintain their power through patronage distribution. In some cases, the populist moment evaporates, and the politicians who chose this safer strategy can avoid paying the costs they may have faced if they publicly aligned themselves with the leader. If the populist is successful in maintaining popularity and reshaping institutions, however, this access slowly diminishes as new political networks emerge. In the medium term, as local outsiders help the populists implement their signature policy, they build network connections and reshape the political structure. The populists learn who "their people" are and begin to favor these loyalists. This, in turn, erodes the standing of the old guard as resources are progressively redirected to local officials who are implementing the signature policy.

It is not only in weak party systems like the Philippines that this plays out. For example, a similar pattern appears to have taken place in the United States in recent years. Donald Trump took over the Republican Party in 2015–16 and proceeded to systematically eliminate internal dissent and remove rivals in 2017–18. Political observers were initially unsure about whether Trump would be able to effectively reshape the party in his image. Despite this, a number of prominent politicians (including a disproportionately large number of politicians who lacked strong ties to the Republican establishment) enthusiastically hitched their political fortunes to Trump and the policies he was attempting to implement. But it is not a forgone conclusion that outsiders will be successful at building a winning network. In contrast with President Duterte, Trump and his Republican Party lost ground in the 2018 midterm elections, losing control of the House of Representatives and many governorships, state legislatures, and local offices across the country. It remains to be seen whether the Republican politicians who placed their bets on Trump will see the long-term benefits they hoped to achieve by reshaping the Republican Party around his policies and personality.

Political outsiders and populists typically attempt to reshape the political structures of their country, including through signature policies. But given that many ambitious policies end up failing, and may expose implementers to longer term legal or reputational risks, existing insiders often choose to hedge their bets rather than embracing the populist. This provides an opening for those previously locked out of political networks and patronage to advance, provided they can credibly signal their loyalty to the top.

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Outsiders vs. Insiders: How Local Politics Drives Duterte's War on Drugs in the Philippines

Online Supporting Information

A.1 Additional results and robustness

A.1.1 All crime types

Table A.1: **Effect on Blotter Report Rates by Crime Category (Diff-in-Diff)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DV:	Drug-related	Homicide	Car Theft	Assault	Rape	Robbery	Theft	Car Accident	All Violent
DiD Estimate	.36*	.13	.05	-.13	-.01	.04	-.04	.16	.04
	(.18)	(.10)	(.04)	(.24)	(.03)	(.06)	(.13)	(.57)	(.32)
N	378	378	378	378	378	378	378	378	378
Clusters	189	189	189	189	189	189	189	189	189

Notes: Outcomes are Bantay Krimen blotter reports from 2015 Dec 2018, summed by municipality. Municipality and period fixed effects, and clustered standard errors. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election.

Table A.2: **Effect on Blotter Report Rates by Crime Category (R.D.D.)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DV:	Drug-related	Homicide	Car Theft	Assault	Rape	Robbery	Theft	Car Accident	All Violent
RDD Estimate	.46*	.24	.09	-.14	-.03	.06	-.07	.03	.04
	(.21)	(.16)	(.06)	(.28)	(.04)	(.08)	(.16)	(.65)	(.35)
N	494	445	463	589	523	523	555	517	633
Opt BWidth	.158	.141	.147	.213	.174	.173	.194	.169	.236

Notes: Outcomes are Bantay Krimen blotter reports from 2015 Dec 2018, summed by municipality. Bias-corrected local linear polynomial RDD with CCT bandwidth and robust errors, outcomes differenced (pre-Duterte subtracted from post-Duterte). Running variable outsider vote share margin.

A.1.2 ACLED: Number of fatalities

Table A.3: **Effect on ACLED-reported Fatalities (Log Transformed)**

	(1)	(2)	(3)
Dependent variable:	Any Fatal	PNP Fatal	Vigilante Fatal
Diff-in-Diff Estimate	.27+	.27*	.04
	(.15)	(.14)	(.12)
N	378	378	378
Clusters	189	189	189

Notes: Outcome is Inverse Hyperbolic Sine-transformed fatality counts (similar to log transformation but defined at zero). Municipality and period fixed effects, and clustered standard errors. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election.

A.1.3 Procurement category details

Table A.4: **Procurement Category Details (Diff-in-Diff)**

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Total Procurement	Roads	Flood Abatement	Schools	Health
Diff-in-Diff Estimate	-2.22*	-1.05+	-.93*	-.00	-.13
	(.90)	(.55)	(.38)	(.38)	(.11)
N	378	378	378	378	378
Clusters	189	189	189	189	189

Notes: Outcomes are in millions of Philippine Pesos (about 50 Pesos per USD) per 1,000 population. Municipality and period fixed effects, and clustered standard errors. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election.

Table A.5: **Procurement Category Details (R.D.D.)**

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Total Procurement	Roads	Flood Abatement	Schools	Health
RDD Estimate	-3.62**	-2.09**	-.97*	-.38	-.21
	(1.16)	(.78)	(.45)	(.41)	(.14)
N	450	426	538	496	567
Opt BWidth	.143	.131	.184	.158	.201

Notes: Outcomes are in millions of Philippine Pesos (about 50 Pesos per USD) per 1,000 population. Bias-corrected local linear polynomial RDD with CCT bandwidth and robust errors, outcomes differenced (pre-Duterte subtracted from post-Duterte). Running variable outsider vote share margin.

Table A.6: **Effect on Blotter Reports: Dropping PDP-Laban Municipalities**

	Blotter Reports				ACLED		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Drug-related	Assault	Theft	Total	Any Fatal	PNP Fatal	Vigilante Fatal
Diff-in-Diff Estimate	.36*	-.16	-.06	-.07	.12+	.15*	-.03
	(.18)	(.25)	(.12)	(.43)	(.07)	(.07)	(.06)
N	366	366	366	366	366	366	366
Clusters	183	183	183	183	183	183	183

Notes: Columns (1)-(7) report difference-in-differences interaction term (β_3), includes municipality and period fixed effects, SE clustered by municipal cluster (municipalities impacted by the same close election municipality); Sample: municipalities with very close (<5%) margin of victory.

A.1.4 Placebo: Pre-Duterte ACLED outcomes

Table A.7: **Placebo Test: Pre-Duterte ACLED Outcomes**

Dependent variable:	(1) Any Fatal Incident	(2) Log Fatalities	(3) Any Fatal Incident	(4) Log Fatalities
OLS Estimate	-.04	-.04		
	(.03)	(.03)		
RDD Estimate			-.06	-.05
			(.04)	(.04)
N	189	189	526	647
Opt BWidth			.176	.244

Notes: Notes: Columns (1)-(2) ACLED incidents from 1 Jan 2016 to 1 July 2016, summed by municipality. Region fixed effects, Stata robust SE. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election. Columns (3)-(4): bias-corrected local linear polynomial RDD with CCT bandwidth and robust errors.

A.1.5 Placebo: Pre-Duterte procurement

Table A.8: **Effect on Public Works Procurement**

Dep var:	(1) Total Procurement	(2) Easy Corruption	(3) Difficult Corruption	(4) Total Procurement	(5) Easy Corruption	(6) Difficult Corruption
OLS Estimate	.70	.87	-.10			
	(.91)	(.71)	(.17)			
RDD Estimate				.87	.86	-.05
				(.98)	(.75)	(.22)
N	189	189	189	558	549	557
Opt BWidth				.196	.191	.195

*Notes: Outcomes are in millions of Philippine Pesos (about 50 Pesos per USD) per 1,000 population from 2013 to 1 July 2016. Columns (1)-(3) report difference-in-differences interaction term (β_3), includes municipality and period fixed effects, SE clustered by municipality. * = p<.05; Sample: municipalities with very close (<5%) margin of victory. Columns (4)-(6): Bias-corrected local linear polynomial RDD with CCT bandwidth and robust errors; outcomes differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.*

A.1.6 Placebo: Non-competitive elections

In Table A.9 we examine what happens in outsider vs. insider muncipalities when the winner prevails by a larger margin (greater than 5 percentage points). Among these races the median margin of victory is 22 percentage points (mean is 28 percentage points).

Table A.9: **Null Effects in Non-competitive Municipalities**

Dependent variable:	(1) Drugs	(2) Assault	(3) Theft	(4) Total	(5) ACLED (any)	(6) PNP killing	(7) Vigilante killing
Diff-in-Diff Estimate	.06	-.09	-.12	-.17	.02	.01	.03
	(.10)	(.12)	(.07)	(.21)	(.04)	(.03)	(.03)
N	1590	1590	1590	1590	1590	1590	1590
Clusters	795	795	795	795	795	795	795

*Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and include municipality and period fixed effects, SE clustered by municipality. * = p<.05; Sample: municipalities with (>5%) margin of victory (not close).*

Table A.10 presents the interacted 'triple difference' model, where we observe that the differences between close and not as close elections are statistically significantly different from each othe.

Table A.10: **Effects in Competitive and Non-competitive Municipalities**

Dependent variable:	(1) Drugs	(2) Assault	(3) Theft	(4) Total	(5) ACLED (any)	(6) PNP killing	(7) Vigilante killing
Diff-in-Diff	.06	-.09	-.12	-.17	.02	.01	.03
	(.10)	(.12)	(.07)	(.21)	(.04)	(.03)	(.03)
Diff-in-diff ×	.30+	-.04	.08	.22	.12+	.15*	-.05
Competitive	(.20)	(.27)	(.14)	(.47)	(.08)	(.07)	(.07)
N	1968	1968	1968	1968	1968	1968	1968
Clusters	984	984	984	984	984	984	984

Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and the triple interaction term (diff-in-diff × Competitive dummy; 5 percentage point margin of victory or smaller), and include municipality and period fixed effects, SE clustered by municipality and the secondary constituent term of the triple interaction (competitive × post period) that is not absorbed by the fixed effects.

A.1.7 Robustness: Excluding National Capital Region (Metro Manila)

In Table A.11 we find that all the main results remain after removing municipalities in Metro Manila, where some of the greatest excesses of the drug war were reported.

A.1.8 Robustness: Changing cut-off date to May 10th, 2016

President Duterte's opponent, Mar Roxas, conceded the 2016 presidential election on May 10th, 2016. Conceivably, although Duterte did not take power until July, police and vigilantes may have heard his campaign slogans and began implementing elements of the drug war as soon as they heard he had won. We re-run the analysis using May 10th as the beginning of the Duterte era, finding in Table A.12 that the results remain the same.

Table A.11: **Main Effects Remain After Excluding Metro Manila**

Dependent variable:	(1) Drugs	(2) Assault	(3) Theft	(4) Total	(5) ACLED (any)	(6) PNP killing	(7) Vigilante killing
Diff-in-Diff	.27+	-.12	-.06	.02	.14*	.16*	-.03
	(.16)	(.25)	(.13)	(.43)	(.07)	(.07)	(.06)
N	374	374	374	374	374	374	374
Clusters	187	187	187	187	187	187	187

Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and and include municipality and period fixed effects, SE clustered by municipality. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election, excluding any municipalities in the National Capital Region (Metro Manila).

Table A.12: **Main Effects Remain After Changing Duterte Period Cutoff**

Dependent variable:	(1) Drugs	(2) Assault	(3) Theft	(4) Total	(5) ACLED (any)	(6) PNP killing	(7) Vigilante killing
Diff-in-Diff	.35+	-.11	-.03	.13	.14*	.15*	.00
	(.19)	(.28)	(.15)	(.48)	(.07)	(.07)	(.06)
N	378	378	378	378	378	378	378
Clusters	189	189	189	189	189	189	189

Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and and include municipality and period fixed effects, SE clustered by municipality. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election. The "post" period begins May 10, 2016 rather than July 1, 2016.

A.1.9 Robustness: Iterative dropping non-LP parties and independents

Some readers may be concerned that the results are driven by a particular party or by independents. In the following two tables, we iteratively drop independents and then each of the five largest non-LP parties from the analysis to see if the results are significantly affected.

We find that results are robust to the exclusion of each of the parties, despite the reduction in statistical power. In Table A.13 we find that the police blotter results are very similar to our main results; the one difference is for the NPC party, where the parameter does drop to .27 and marginally statistically insignificant. In Table A.14 we find consistent and statistically significant results across the board.

We do not that the results when removing the NPC (Nationalist People's Congress) are weaker than the others, although the effects are not statistically significantly different. The NPC is a conservative political movement that has generally been supporting of "tough on crime" initiatives. The results indicate that the NPC's ideological predilection may contribute a small amount to our overall findings.

A.1.10 Robustness: Cattaneo, Jansson, Ma (2018) sorting test

In addition to the McCrary (2008) sorting test, we implement in Stata a newer manipulation test that is more sensitive, developed by Cattaneo et al. (2018). Using local polynomial density estimation, the test produces a p value for the probability that there was manipulation along the boundary. We find no evidence for this p=0.65. See test output in Figure A.1 below.

Table A.13: **Police Blotter Results Remain After Dropping Parties**

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Drugs-related Police Blotter reports					
Party dropped:	Independents	PDP Laban	NUP	UNA	NP	NPC
Diff-in-Diff	.44*	.36*	.39*	.39*	.34+	.27
	(.20)	(.18)	(.18)	(.19)	(.19)	(.19)
N	354	366	370	340	350	336
Clusters	177	183	185	170	175	168

Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and and include municipality and period fixed effects, SE clustered by municipality. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election; each column drops candidates from the listed party.

Table A.14: **Fatal PNP Incident Results Remain After Dropping Parties**

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Drugs-related Police Blotter reports					
Party dropped:	Independents	PDP Laban	NUP	UNA	NP	NPC
Diff-in-Diff	.18*	.15*	.15*	.17*	.16*	.14*
	(.07)	(.07)	(.07)	(.07)	(.07)	(.07)
N	354	366	370	340	350	336
Clusters	177	183	185	170	175	168

Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and and include municipality and period fixed effects, SE clustered by municipality. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election; each column drops candidates from the listed party.

A.1.11 Alternative RDD specifications

Table A.15: **Effect on Blotter Reports: IK Bandwidth**

	(1)	(2)	(3)	(4)
Dependent variable:	Drug-related	Assault	Theft	Total
RDD Estimate	.52**	-.46	-.00	-.07
	(.19)	(.34)	(.18)	(.60)
N	638	441	453	445
Optimal Bandwidth	.237	.138	.144	.141

Notes: Bias-corrected local linear polynomial RDD with Imbens-Kalyanaraman bandwidth and conventional errors; outcomes differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.

Figure A.1: Output from Cattaneo et al. (2018) Local Polynomial Manipulation Test

RD Manipulation Test using local polynomial density estimation.

Cutoff c = 0	Left of c	Right of c
Number of obs	1288	680
Eff. Number of obs	568	452
Order est. (p)	2	2
Order bias (q)	3	3
BW est. (h)	0.167	0.164

Number of obs =	1968
Model =	unrestricted
BW method =	comb
Kernel =	triangular
VCE method =	jackknife

Running variable: unaligned_vote_share_margin.

Method	T	P>|T|
Robust	0.4536	0.6501

Table A.16: **Effect on Blotter Reports: No Bias Correction**

	(1)	(2)	(3)	(4)
Dependent variable:	Drug-related	Assault	Theft	Total
RDD Estimate	.39+	-.10	-.07	.03
	(.21)	(.28)	(.16)	(.49)
N	638	441	453	445
Optimal Bandwidth	.237	.138	.144	.141

Notes: Uncorrected local linear polynomial RDD with CCT bandwidth and conventional errors; outcomes differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.

Table A.17: **Effect on Blotter Reports: Bias-corrected, CCT Errors**

	(1)	(2)	(3)	(4)
Dependent variable:	Drug-related	Assault	Theft	Total
RDD Estimate	.46+	-.14	-.07	-.01
	(.24)	(.33)	(.18)	(.57)
N	494	589	555	626
Optimal Bandwidth	.158	.213	.194	.234

Notes: Bias-corrected local linear polynomial RDD with CCT bandwidth and CCT errors; outcomes differenced (pre-Duterte subtracted from post-Duterte); running variable is outsider vote share margin.

A.1.12 Two percent margin for difference-in-differences

Using a 2 percent cutoff for "very close" elections, we find that the results are almost identical, however with larger standard errors due to the loss of sample size. Table A.18 shows that the effect on drug-related blotter reports remain 'statistically significant' at the $p<.1$ level.

Table A.18: **Effect on Post-Duterte Crime Rates**

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Drug-related	Theft	Assault	Homicide	Robbery	Rape
Diff-in-Diff Estimate	.40+	.08	.05	.25	.11	.05
	(.24)	(.20)	(.41)	(.19)	(.09)	(.05)
LP Post-Duterte Mean	.95	.94	1.57	.60	.39	.33
N	164	164	164	164	164	164
Clusters	82	82	82	82	82	82

Notes: Municipality and period fixed effects, SE clustered by municipality, + = p<.1 Sample: Municipalities with very close (<2% margin of victory) for the 2016 mayoral election.

A.1.13 ANCOVA with 5 percent margin

Table A.19: **Effect on Post-Duterte Crime Rates (ANCOVA)**

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Drug-related	Theft	Assault	Homicide	Robbery	Rape
Outsider Mayor	.31*	-.06	-.13	.17	-.01	-.01
	(.14)	(.11)	(.23)	(.16)	(.05)	(.03)
N	189	189	189	189	189	189

Region fixed effects, controlling for pre-treatment crime rates * p<.05, Stata robust SE

A.1.14 2013 electoral cycle

Table A.20: **2013 Insider/Outsiders Re-election in 2016**

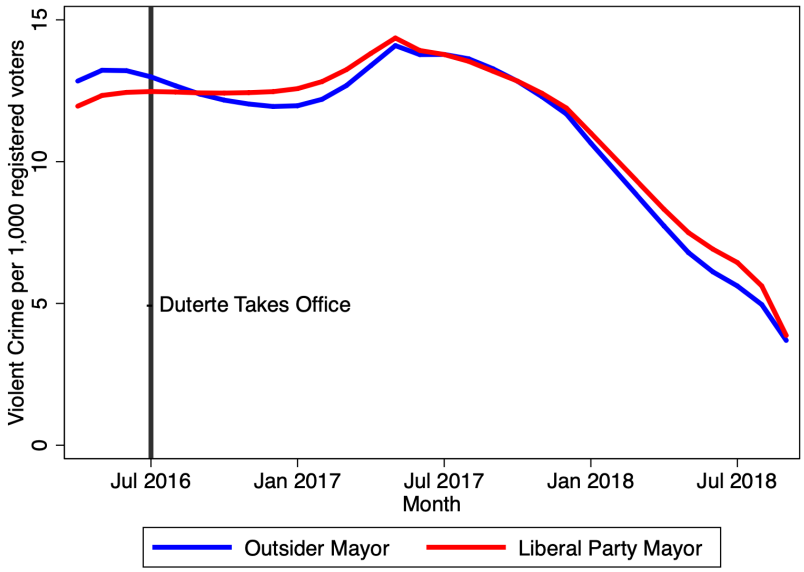
	(1))
Dependent variable:	Re-election in 2016 (binary)
Outsider Mayor (in 2013)	-.17**
	(.06)
LP mayor mean	0.3
N	195

Notes: OLS, region fixed effects, Stata robust SE. Outcome is re-election indicator, based on last name and party. Sample: Municipalities with very close (<5% margin of victory) for the 2013 mayoral election.

A.1.15 Alternative standard errors

In this section we include two alternative methods for constructing the standard errors — randomization/permutation inference and boostrapping — for our analysis to further verify that the uncertainty estimates shown in the main results

Figure A.2: Violent Crime in Police Blotter Reports



Notes: Among 189 municipalities with very close (<5% margin of victory) for the 2016 mayoral election. Violent crime includes homicides, rape, robbery, assault.

are appropriate. Table A.21 shows the p-values across the three methods, finding that they are all below conventional thresholds. All analysis conducting in Stata, with the randomization inference employing the 'ritest' package.

Table A.21: **Comparing analytic, boostrapped and permutation inference standard errors**

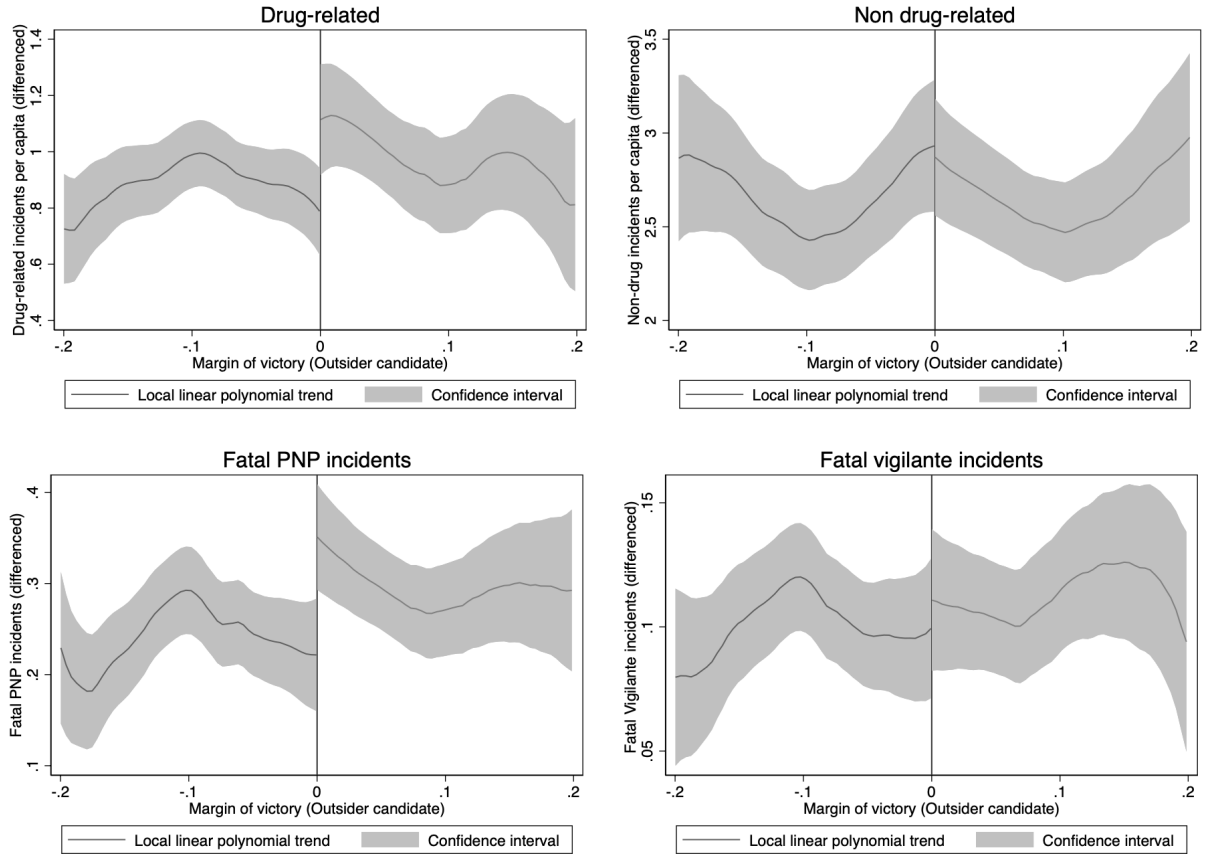
Outcome:	*Drug-related blotter reports*			*Fatal ACLED incidents*		
SE type:	Analytic	Randomization Inference	Bootstrap	Analytic	Randomization Inference	Bootstrap
Diff-in-Diff Estimate	0.36	0.36	0.36	0.36	0.36	0.36
P-value	.044	.014	.048	.040	.015	.034
N	378	378	378	378	378	378
Clusters	189	189	189	189	189	189

*Notes: Columns (1)-(6) report the difference-in-differences interaction term (β_3) and include municipality and period fixed effects, SE clustered by . *= p<.05; Sample: municipalities with 5% or smaller margin of victory.*

A.2 RDD plots

In Figure A.3 we show the RDD plots for the main outcomes and the relevant placebo outcome. We find significant differences for drug-related police blotter reports and ACLED-reported PNP-involved fatal incidents, but no difference for non-drug crime or vigilante killings. The differences for drug-related blotter reports and PNP killings occur where elections are competitive, converging to zero difference as the electoral margin becomes high and the competitiveness declines.

Figure A.3: RDD Plots for Main Outcomes



Notes: Using CCT bandwidth, local linear polynomial regression and biased-adjusted CCT confidence intervals. rug-related incidents are defined as blotter reports where primary designation is RA-9165, referring to the "Comprehensive Dangerous Drugs Act of 2002." Fatal PNP incidents are those where PNP officers killed a drug suspect.

A.3 Diagnostics

In Tables A.22 and A.23 we see balance in pre-treatment crime rates and muncipal characteristics among closely contested muncipalities.

Table A.22: **Placebo 1: No Relationship with Pre-Duterte Crime Rates**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	Drugs	Assault	Theft	Total	Drugs	Assault	Theft	Total
OLS Estimate	-.01	.02	-.07	-.04				
	(.03)	(.06)	(.05)	(.11)				
RDD Estimate					.00	.04	-.03	.09
					(.04)	(.09)	(.07)	(.17)
N	189	189	189	189	984	984	984	984
Region Fixed Effects	Yes	Yes	Yes	Yes				

Notes: Columns (1)-(4) Bantay Krimen blotter reports from 2015 to 1 July 2016, summed by municipality. Region fixed effects, Stata robust SE. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election. Columns (5)-(8): bias-corrected local linear polynomial RDD with CCT bandwidth.

Table A.23: **Placebo 2: No Relationship with 2010 Census Characteristics**

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent var.	Population	% Male	Household Size	% Overseas Worker	Education	% age 18-39
Outsider Mayor	104	-.00	.03	-.00	.01	.00
	(4378)	(.00)	(.07)	(.00)	(.03)	(.01)
N	187	187	187	187	187	187

	(7)	(8)	(9)	(10)	(11)
Dependent var.:	% Single Catholic	% Roman	% Muslim	% Indig. People	% Good Home Qual.
Outsider Mayor	-.01	.03	-.00	-.03	.00
	(.00)	(.02)	(.01)	(.03)	(.00)
N	187	187	187	187	187

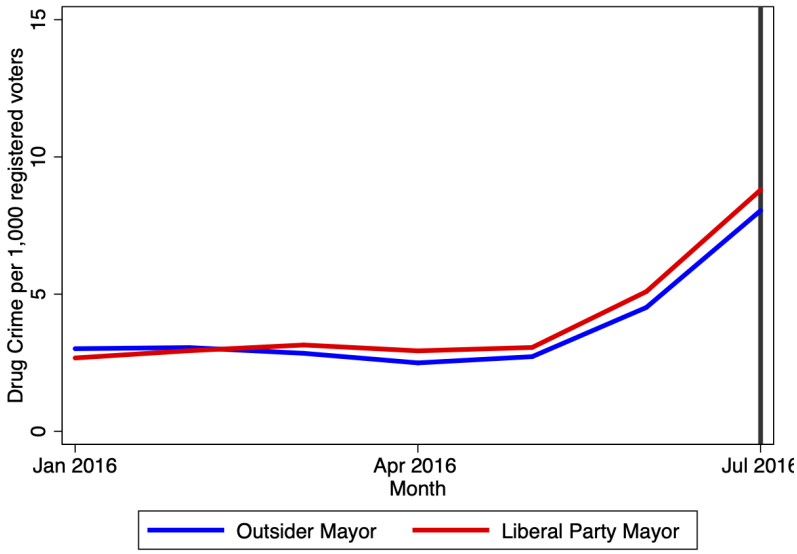
Notes: 2010 Filipino census, averages by municipality. Region fixed effects, Stata robust SE. Sample: Municipalities with very close (<5% margin of victory) for the 2016 mayoral election.

In Figures A.4, A.5 and A.6 we see that that the pre-Duterte trends for each of the main outcomes moves in parallel (nearly identically) between municipalities that had narrowly winning Liberal Party and outsider mayors in the May 2016 election.

Robustness to bandwidth choice (difference in differences)

In the main analysis we choose at 5 percent margin to define 'competitive' races for the purposes of the difference in differences analysis. Recall that we expect only candidates in relatively competitive races to respond to the drug war incentive, whereas those in non-competitive races should not. We show in placebo tests in Tables A.9 and A.10 above that non-competitive races indeed do not exhibit these dynamics. But could there be something idiosyncratic about the 5 and

Figure A.4: **Drug-related Police Blotter Reports Trends Pre-Duterte**



Notes: Among 189 municipalities with very close (<5% margin of victory) for the 2016 mayoral election. Drug-related crimes.

2 percent margins that we chose to highlight in the main analysis. Table **??** shows that the results are consistent across a range of competitive bandwidths: 6%, 5.5%, 5%, 4.5%, 4%, 3.5%, and 2%.

Table A.24: **Effects Across Different Competitive Bandwidths (Diff-in-diff)**

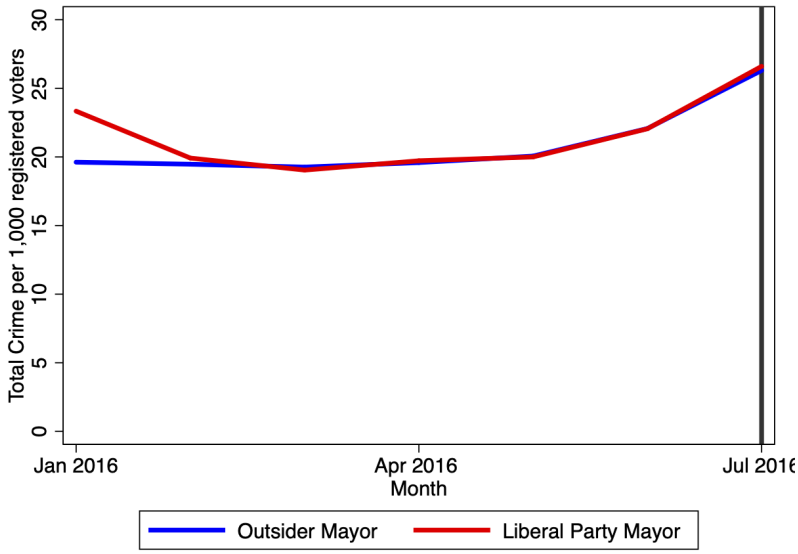
	Dependent variable: Drugs-related blotter report						
Bandwidth:	**6%**	**5.5%**	**5%**	**4.5%**	**4%**	**3.5%**	**2%**
Diff-in-Diff Estimate	.34^{+}	.34^{+}	.36*	.38*	.42*	.28^{+}	.40^{+}
	(.19)	(.19)	(.18)	(.19)	(.20)	(.18)	(.24)
N	452	418	378	346	294	274	164
Clusters	226	209	189	173	147	137	82

*Notes: Columns (1)-(7) report the difference-in-differences interaction term (β_3) and include municipality and period fixed effects, boostrapped SE clustered by municipality. *= p<.05 $^{+}$= p<.10 ; Sample: municipalities margin of victory denoted by column bandwidth.*

Political connectedness of candidates

In addition to showing balance on the census characteristics of municipalities on either side of the close election boundary, we want to investigate how winning candidates among outsiders and insiders look similar and different. Using data on the candidates' names, political linkages and background, we show in Table A.25 that outsider and insider winners of competitive mayoral elections are identical in terms of gender, dynastic relationships (they all have family members that were previously in elected office), connections to other candidates (almost none were explicitly connected to candidates for legislature). We do find, however, that outsider winners are more likely to be first time candidates and/or first time winners. This is an important characteristic of the "outsider" label: insiders by definition must be connected, and thus

Figure A.5: Total Police Blotter Reports Trends pre-Duterte



Notes: Among 189 municipalities with very close (<5% margin of victory) outcomes for the 2016 mayoral election. Excludes "pure" auto accidents (those that are not classified as homicide or other crime, e.g. hit and run).

likely previously elected, to be able to run under the LP label in 2016. That these candidates all have some pre-existing connection to the political class suggests that outsider status is about your political network not being in power, rather than being outside of politics entirely. Even Duterte himself, although clearly defined as an outsider to national politics, spent decades at the heart of politics in Davao City in Mindanao. Thus his 'outsidernes' is about networks and connectedness rather than the political game as a whole.

Table A.25: **Similarities and Differences in Candidates**

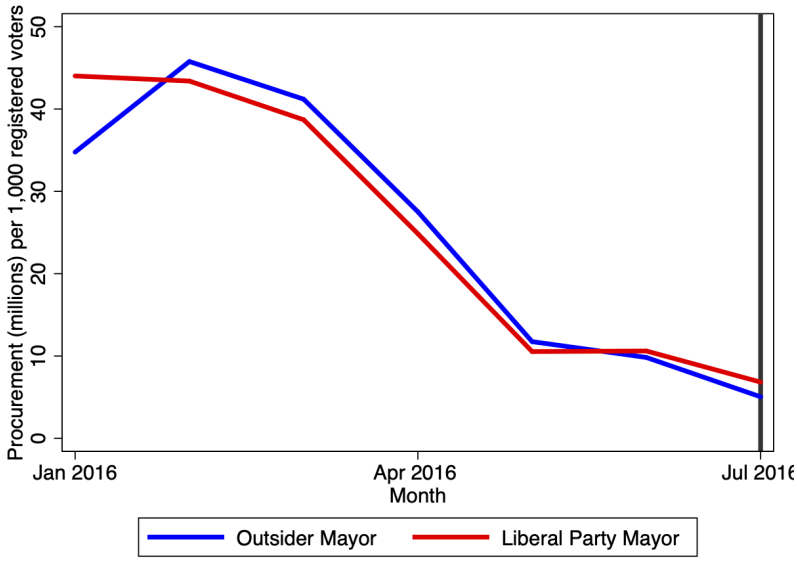
Dependent variable:	(1) Connected to leg candidate	(2) Paternal dynasty	(3) Maternal dynasty	(4) Female	(5) First time candidate	(6) First time winner
Outsider winner	.01	.00	.00	.01	.16*	.18**
	(.02)	(.)	(.)	(.07)	(.07)	(.07)
N	189	189	189	189	189	189

Candidate characteristics. Region fixed effects, Stata robust SE. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election.

Previous mayors and electoral performance

In this section we examine the 2013 mayoral election and test whether we observe pre-treatment balance on two relevant outcomes: previous LP mayor and 2013 mayor voter margin. We have already found that municipalities narrowly won by insiders and outsiders are balanced on pre-treatment demographics, political connectedness, crime rates, and fatal drug war incidents.

Figure A.6: Public Works Procurement Trends Pre-Duterte



Notes: Among 189 municipalities with very close (<5% margin of victory) outcomes for the 2016 mayoral election. Millions of pesos of public works procurement per 1,000 population.

As seen in Table A.26 we see no significant difference in the pre-treatment (2013) party alignment or margins of victory of mayors. For municipalities where the insider was a close winner in 2016, 47% had LP mayors in 2013 vs. 45% for outsider winners. In terms of margin of victory, they were 58.5% and 57.8% respectively.

Table A.26: **2013 Mayor Characteristics**

Outcome:	(1) LP Mayor (2013)	(2) Mayor margin of victory (2013)
Outsider winner (in 2016)	.02	.01
	(.08)	(.02)
N	170	170

2013 mayor characteristics. Stata robust SE. Sample: Municipalities with close (<5% margin of victory) for the 2016 mayoral election. Due to missingness in the officially reported 2013 mayoral elections data, we lack party id and margins for 19 candidates (10% of the total), mostly from the ARMM and NCR.

A.4 Spatial spillovers

One potential threat to the research design used in this study is spillovers or interference between neighboring municipalities. Criminal activity can freely cross municipal boundaries, and as a nationalized police force the PNP in principle should be capable of coordinating activities across municipalities. If spatial spillovers exist and we do not account for them, SUTVA will be violated and our identification strategy breaks down (Sinclair et al. 2012). Previous studies on policing and community action against crime in developed countries suggest that indirect effects may occur (Weisburd et al. 2006; Brännström et al. 2016).

In the following section we test whether spillovers are likely to be occurring – finding that it is not prevalent – but nonetheless then show that the results hold when excluding municipalities most likely to have been impacted by spillovers. Finally, we use a more conservative spatial clustering approach for the standard errors, finding that the results hold nevertheless.

We think there are two reasons why spatial spillovers are not common for the context of this study. First, although the PNP is in theory organized in a hierarchical setting that allows for common actions across municipalities, in practice the municipal police chiefs, in collaboration with the mayor, have enormous discretion in choosing what to do. Police chiefs tend to prioritize what the local politician wants. Second, provincial and regional police directors have neither the information nor the time to micromanage each municipality.

In Table A.27 we analyze the 287 municipalities in the Philippines that had a neighboring municipality with a close election between an outsider and LP mayor. About 20% of our main sample is included here (those with close elections that also had a neighbor with a close election). We find that across the board there are no statistically significant differences between having an outsider vs an LP candidate win next door. This indicates that there are likely not important spillovers occurring from those close elections to their neighbors in terms of crime investigation, especially related to the drug war.

Table A.27: **Effect on Neighboring Municipalities**

	Blotter Reports				ACLED		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Drug-related	Assault	Theft	Total	Any Fatal	PNP Fatal	Vigilante Fatal
Post Duterte * Outsider	.23	.06	.17	.44	.03	.05	-.04
Neighbor (vs. LP)	(.15)	(.25)	(.11)	(.38)	(.07)	(.06)	(.07)
N	574	574	574	574	574	574	574
Clusters	126	126	126	126	126	126	126

Notes: Columns (1)-(7) report difference-in-differences interaction term (β_3), includes municipality and period fixed effects, SE clustered by municipal cluster (municipalities impacted by the same close election municipality); Sample: municipalities neighboring those with very close (<5%) margin of victory.

In Table A.28 we see that after excluding close-election municipalities that also had a neighbor with a close election (and thus may be exposed to spillovers), the estimates are nearly the same as the main difference-in-differences estimates shown in the Results section. The only difference is the wider confidence intervals as a result of dropping 20% of the sample.

Last, we adjust the standard errors to account for the possibility of correlation of errors across municipalities within the same province. In Table A.29 we find close to identical results to the main specifications we present in the body of the manuscript.

Table A.28: **Effects on Crime; Excluding Units with Treated Neighbors**

	Blotter Reports				ACLED		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Drug-related	Assault	Theft	Total	Any Fatal	PNP Fatal	Vigilante Fatal
Diff-in-Diff Estimate	.32+	.03	-.02	.27	.19*	.20*	-.07
	(.19)	(.29)	(.15)	(.51)	(.08)	(.08)	(.06)
N	290	290	290	290	290	290	290
Clusters	145	145	145	145	145	145	145

Notes: Columns (1)-(7) report difference-in-differences interaction term (β_3), includes municipality and period fixed effects, SE clustered by municipality; Sample: Municipalities with (<5%) margin of victory, excluding those with a neighbor with a (<5%) margin of victory.

Table A.29: **Effects on Crime; Clustered at Province Level**

	Blotter Reports				ACLED		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Drug-related	Assault	Theft	Total	Any Fatal	PNP Fatal	Vigilante Fatal
Diff-in-Diff Estimate	.36*	-.13	-.04	.05	.14*	.16*	-.02
	(.17)	(.25)	(.15)	(.49)	(.07)	(.07)	(.05)
N	378	378	378	378	378	378	378
Clusters	64	64	64	64	64	64	64

Notes: Columns (1)-(7) report difference-in-differences interaction term (β_3), includes municipality and period fixed effects, SE clustered by province; Sample: Municipalities with (<5%) margin of victory.

A.5 Public opinion on the Duterte Drug War

The drug war has maintained almost uniformly high levels of self-reported support, despite criticism by the international press, political opposition and substantial human rights costs. Table A.30 shows summary statistics from Pulse Asia Survey that this support appears to cut across socio-economic boundaries, even though many people fear getting caught up in the drug war's effects themselves (with the exception of wealthy and upper middle income respondents).

Table A.30: Support for the Duterte Drug War by Social Class

Pulse Asia Socio-economic Class		Percent of sample	% Support Drug War	% Fear Drug War	% Support Double Barrel	% Approve Duterte
A, B & C	*Wealthy, upper middle*	9	89	47	78	84
D1	*Lower middle A*	53	90	73	73	80
D2	*Lower middle B*	21	88	69	72	78
E	*Impoverished*	17	91	66	70	86
	Total		90	68	73	81

Notes: Based on Pulse Asia's "Ulat ng Bayan," which is a nationwide survey on the performance and ratings of the top Philippine govenrment officials, averaged across quarterly reports from September 2016 to December 2018.

A.6 Census data balance

The following table shows municipalities narrowly won by LP and outsider mayors compared on background characteristics, based on the Philippines' 2010 census. We see that the two groups of municipalities are nearly identical in terms of the thirteen variables.

We include the p-values of a t test between the two groups to illustrate why substantive, rather than "statistically significant," differences between treatment and control groups are important. Looking at, for example, the percentage of residents that are unmarried, the proportion is basically identical, but because the test is well-powered and the variance low, the p-value of the t test is 0.16. If we had more observations, this could easily return a "statistically significant" difference, despite being effectively the same! In contrast, there is a 24% difference in the proportion of indigenous people in the LP vs outsider municipalities. This is because share IP is bi-modal – either you have close to all indigenous people or basically zero. This greatly increases the variance, rendering the p-value of the t test higher than the % single measure. In fact, we should be more worried — although in practice, not at all worried, given the difference-in-difference results — about the IP imbalance than the % single.

Table A.31: 2010 Census Data (Balance Test Among Close Mayoral Elections)

Variable	**LP mayor**	**Outsider mayor**	**Diff.**	**% Diff.**	**T-test p value**
Population	25749	26388	639	0.02	0.88
% Male	0.51	0.51	0.00001	0.00	0.99
Household Size	3.64	3.64	0.006	0.00	0.95
% working overseas (OFW)	0.026	0.024	-0.001	-0.04	0.63
Education Index	1.84	1.85	0.01	0.01	0.86
% aged 18-39	0.56	0.56	0.004	0.01	0.59
% Single (unmarried)	0.28	0.28	-0.001	0.00	0.16
% Roman Catholic	0.76	0.79	0.027	0.04	0.46
% Muslim	0.07	0.06	-0.01	-0.14	0.70
% Other Religion	0.17	0.15	-0.015	-0.09	0.55
% Indigenous People	0.21	0.15	-0.05	-0.24	0.26
% Home: good quality	0.36	0.36	-0.0001	0.00	0.98
% Home: bad quality	0.46	0.46	0.0004	0.00	0.83
N (total: 187)	98	89			

A.7 Procurement and corruption

Politicians have the opportunity to skim money from public works funds at various stages of the procurement process. Summarized below are the key stages of the procurement process and how politicians take their cut, based on author conversations with key informants.

1. Private construction firms (contractors) get accreditation to qualify to bid on public works contracts. Either they are already politically connected or not.
2. Contractors who are not politically connected choose candidates to support (sometimes hedging their support on multiple, competing candidates).
3. Political candidates then win office. While mayors, governors, and council members have some influence over small public works contracts implemented within their jurisdiction, their influence do not compare to a legislator's. Contractors who have supported the campaign of the winning legislator stand to gain from such connection during procurement.
4. Legislators take office and begin efforts to legislate laws that come with public works funding, or to make congressional insertions in the annual budget.
    - Legislator inserts projects in the National Expenditure Program (NEP) budget
    - NEP is approved and becomes the General Appropriations Act (GAA; national budget)
5. Legislator works with the Department of Budget and Management (DBM) to release the funds to DPWH for the projects that have been funded under the approved annual budget. Funds are released in tranches.
6. The relevant District Engineering Office (DEO) prepares the project costing. DPWH initiates procurement process (e.g. Invitation to bid, bidding, notice of agreement, notice to proceed, notice of award).
7. First-price auction-style sealed-bidding is conducted. The process is sometimes rigged so that the contractor favored by the legislator wins the contract.
8. Contractors distribute side-payments as they receive funds, to all complicit players as follows (% of project budget):
    - Lawful payments:
        - 45-50% for actual project implementation costs
        - 15-20% profit for contractor
        - 9% government tax
    - Illicit payments:
        - 3-7% for congressperson: 3% for "vertical" projects (i.e., school buildings), 5-7% for "horizontal" projects (i.e., roads)
        - 2-3% for armed rebel groups in the area
        - 3% shared among losing bidders
        - 5-7% for DPWH personnel (mostly for district engineer, remainder shared by next 4 most senior positions in district engineering office)

A.8 Additional notes on data

Distribution of Winning Mayors by Party Label

Table A.32: **Distribution of Winning Mayors by Party Label**

Party	Frequency	Share (%)
LP	747	46.28
PDP-LABAN	19	1.17
1CEBU	8	0.49
AI	8	0.49
AKSYON	13	0.8
BAKUD	8	0.49
BISKEG	2	0.12
BPP	18	1.11
HUGPNG	3	0.18
INDEPENDENT	106	6.56
KB	4	0.24
KBL	9	0.55
KDO	1	0.06
KMBLN	8	0.49
KSN	1	0.06
LAKAS	8	0.49
LDP	5	0.3
NP	143	8.85
NPC	199	12.32
NUP	119	7.37
NAVOTENO	1	0.06
PADAYN	7	0.43
PAK	1	0.06
PCM	6	0.37
PDPL	1	0.06
PELA	1	0.06
PMP	5	0.3
PPP	9	0.55
PROMDI	1	0.06
PRP	2	0.12
PTM	6	0.37
SIGAW	2	0.12
SZP	9	0.55
UNA	134	8.3
Total	1614	100

Notes: The Liberal Party (LP) has the majority of seats in the Lower House. PDP-LABAN is President Duterte's party.

ACLED

News-based data sources are only as good as the source material fed to the coders. Every fatal drug war incident that takes place in the Philippines is not guaranteed to make its way into a newspaper, police press release or TV crime roundup, and thus could be missed by ACLED. That said, the Filipino and international press have been very aggressive in reporting on the Duterte drug war. Drug-related fatalities regularly feature in front page articles in prominent domestic and international newspapers, wire services, blogs and websites. Local news sources are more likely to simply repackage police press releases about drug-related killings, but nonetheless almost always run a story. Fatal events are particularly

difficult to suppress, because journalists know the public are very eager to read, see, and hear crime related coverage. Our view is that ACLED's count of fatal drug killings is almost certainly an under count, but it covers an important subset of incidents in a way that is unrelated to the insider or outsider status of the mayor at the time. We also hedge our bets by using, as our primarily ACLED outcome, a binary measure of whether there were *any* fatal incidents reported in a municipality during the period in question, rather than a count of all incidents (we include counts of fatalities in the Appendix). This separates the municipalities more sharply than comparing the number of incidents in the dataset.

DPWH procurement data

It is possible that information on civil works contracts reported online may be incomplete in ways that would bias our estimates. For instance, DPWH may be systematically under-reporting information on public works implemented in localities with non-LP mayors. However, this concern is allayed by the fact that the total value of contracts awarded annually in the data is roughly the same as the total annual amount reported in DPWH Annual Reports.[50] Moreover, data on civil works contracts are stored in a centralized database in Manila, which is very unlikely to be influenced by any local government unit. Last, all civil works procurements are also reported on the Philippine Government Electronic Procurement System (PhilGEPS), which is controlled and managed by a different national government agency.

Even if the DPWH civil works contracts database is comprehensive, it is possible that details like the contract amount, the type of project, location, winning contractor or other details may be misreported in ways that would bias our findings. Fortunately, DPWH also makes available online the scanned PDFs of the official abstract of bids for every contract, bearing all the details of the contract as well as the signatures of Bids Awards Committee (BAC) members at the district engineer office (DEO) level. We randomly spot checked over two hundred of the bid abstracts to insure that they match the database, which they did in 95% of the cases. The remaining 5% had errors in the filenames or labeling, but not in the actual contracting information; thus we believe any measurement error to be classical measurement error uncorrelated with our treatment variable of interest.

[50] http://www.dpwh.gov.ph/dpwh/about/annual-report