

Using worksite sampling to ask about violence

Extended abstract

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Abstract

As violence, crime, and insecurity continue to be pressing problems for society and for scientific study, survey research has an important role to play. This is particularly true when theory-building about the relationship between armed groups and civil society, and understanding how their presence, governance, or use of force affects everyday people. Yet these concepts are often difficult to measure and recruitment could put potential respondents in harm's way, especially when survey questions directly ask about the armed group. This paper offers suggestions for how to conduct descriptive and experimental surveys about armed actors. I argue that the use of *worksite sampling* can provide heightened protection for respondents and elicit more truthful answers when conducting surveys about criminal, rebel, or other armed group governance. This paper puts forward concrete advice addressing recruitment and sampling strategies when trying to reach residents who live under non-state governance, as well as suggestions about implementing worksite sampling more generally. Finally, this paper illustrates these suggestions with evidence from an in-person survey conducted in Rio de Janeiro, Brazil, which used worksite sampling to interview bus drivers and fare collectors about criminal governance in their neighborhoods.

*Note: This draft is in progress and incomplete. Please do not circulate without author permission.

1 Using *worksite sampling* to ask about violence

Following the work of Thachil (2018), I conducted an original in-person survey using *worksite sampling*.¹ My sample comprised primarily of bus drivers and fare collectors for the municipal bus service; I collect a sample of size $n = 356$. The goal of this survey was to target favela residents that lived under diverse criminal governance regimes and ask them about campaigns in their communities, as well as an experimental treatment about hypothetical broker activities that a criminal group might take on.

The worksite sampling data collection method was useful for empirical reasons because I could reach respondents from various parts of the state while staying in the same location. All bus drivers are required to make their way to the central terminal to clock out and get the bus serviced at the end of their shift, even if their shift does not end at the terminal as its final stop. Practically, this meant that there were "rush hour" waves of drivers and fare collectors flooding the terminal once their shifts were over, clocking out or depositing the cash boxes from the front of the bus. Due to this detail, my enumerators and I were able to process many interviews from all over the city and its suburbs who have a similar socioeconomic and educational profile (they all made the exact same wages from the bus company), all while staying in the same location.

More importantly, it was a safer backdrop for the drivers to talk about their experiences living in criminally governed territories without the fear that a criminal group leader would overhear the conversation. about criminal leaders during an election. Most respondents are low-income residents of criminally dominated areas; I used worksite sampling to protect respondents when asking sensitive questions and elicit more truthful responses than if they had been interviewed in their neighborhoods. In the experimental portion of the survey, I had survey enumerators ask respondents both in the treatment and control condition about the prevalence of a variety of activities related to criminal clientelism² in a hypothetical neighborhood in Rio.

I hired a team of seven Brazilian undergraduate students to help administer the survey. I designed the questionnaire, recruited a team of undergraduate social science majors who were from favelas or had experience working in them from *Fundação Getúlio Vargas* to administer the survey, trained them, and brokered an agreement with a local bus company to ensure that the logistics of the survey went smoothly and both respondents and enumerators would be kept safe. The survey instrument is shown in Appendix A1.

2 Experimental design

To test my theory, I examine the different types of campaign actions taken in areas dominated by criminal groups, as well as citizens' evaluation of politicians affiliated with criminal groups. I first randomize participants into one of three groups, the control or one of two treatment groups. The "treatment" groups each see one additional actor on a card presented to them at the beginning of the experimental arm of the survey, as is the standard protocol with list and endorsement experimental designs. The actors they are shown are shown at the *group* level to measure whether or not criminal groups are involved in electoral activities. The list of organizations shown to respondents is shown

¹Worksite sampling means that I recruited respondents and conducted the survey at their place of work instead of at their home.

²As a reminder, I define criminal clientelism in Trudeau (2022) as an *interaction between politicians and criminal groups where votes are traded in order to influence elections*.

below in Table 1.

Table 1: Randomization Groups

Control	Treatment 1	Treatment 2
Churches	Churches	Churches
Neighborhood Associations	Neighborhood Associations	Neighborhood Associations
Primary Schools	Primary Schools	Primary Schools
Military	Military	Military
Police	Police	Police
	Drug Traffickers	Militias

3 Descriptive results

I focus on highlighting the difference between voters living in favelas and those who do not. Though both types of respondents are of similar socioeconomic class, the living conditions associated with informality and precarity and the greater likelihood of being in the presence of criminal organizations mean that a favela resident’s lived experience during campaigns could be quite different than that of her counterpart. Sociological and anthropological accounts allude to rampant vote buying in favelas from varied brokers, including church or neighborhood association leaders (Zaluar 1994; Gay 1993). Some recent work has documented criminal groups’ increasing presence in favela electoral politics, taking on new roles formerly occupied by neighborhood association leaders or church leaders (Arias 2017; Gay 1999; Perlman 2010). The results from this survey paint a clearer picture of what campaigns look like in Rio’s favelas and are the first attempt to use voter perceptions data to quantify the prevalence of criminal groups’ actions as political brokers. Below, I present respondent demographics, describe how campaigns look in their neighborhoods, and reveal their perceptions of the prevalence of criminal clientelism.

Table 2: Survey Sample Characteristics, by Favela Residency

	Non-favela residents	Favela residents
Average Age	43.49	43.47
Proportion Male	0.89	0.82
Proportion Black	0.21	0.28
Proportion Bus Drivers	0.86	0.78
Proportion Long-term Resident	0.69	0.63
Proportion Registered at Address	0.70	0.66
Proportion Victim of Crime	0.43	0.36
Number of Times Victimized*	1.79	1.81
N	207	147

*Only respondents that answered in the affirmative to being a victim of crime answered this question. The sample size is smaller, n = 139, the total who had been victimized.

3.1 Respondent characteristics

There is a lot to learn from both favela and non-favela respondents. All are lower income, live in neighborhoods at higher than average risk of being dominated by criminal groups (some, the favela residents, are higher than others), and work in a moderately dangerous industry.³

A balance table showing demographics of my sample is shown in Table 2. I surveyed slightly more non-favela residents than favela residents, but a sizeable proportion of each.⁴ My sample was overwhelmingly male, bus drivers – the few females who participated were more likely to be fare collectors. Fare collectors are not required to return to the central terminal like the drivers, so there were fewer of them available at the central meeting point. Despite the gender imbalance, it is similar between favela and non-favela residents, thus this imbalance will be held constant when making generalizations comparing the two groups. Table 2 reveals that the favela residents are slightly more likely to be Black, less likely to have resided in their community for more than 10 years, less likely to have their voting registration tied to their current address, and much less likely to be victims of a crime.

Figure 1: Perceptions of Most Serious Problem, by Favela Residency

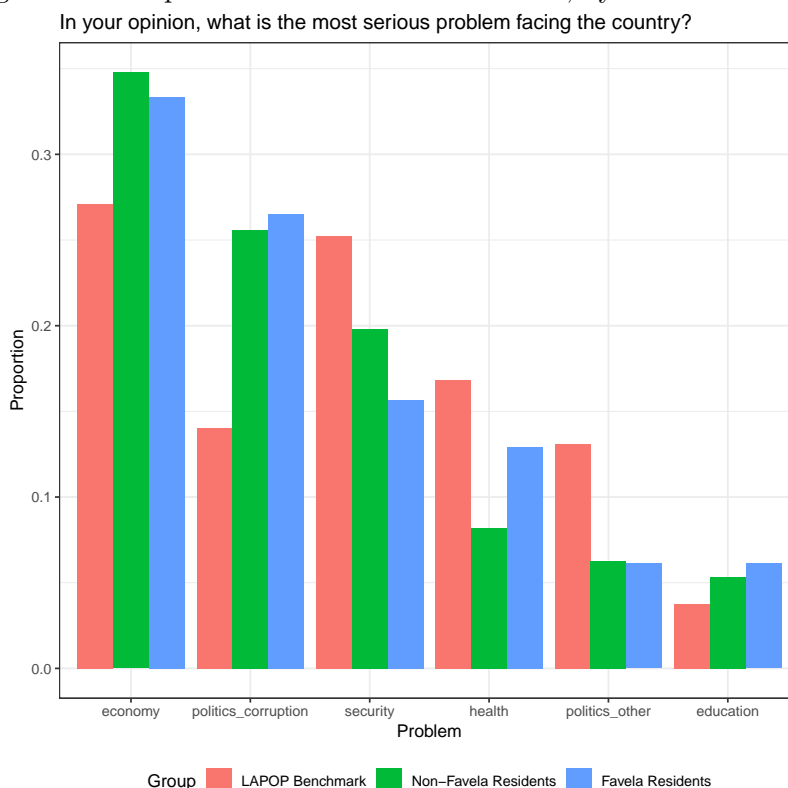
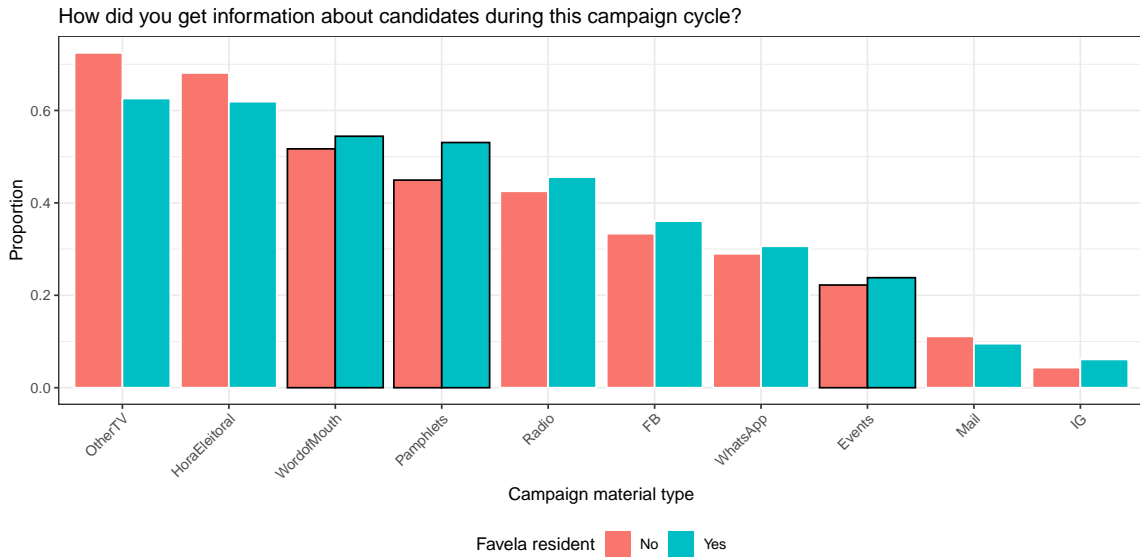


Figure 1 shows that my sample is more likely than the average Rio de Janeiro resident to be

³Bus robberies and thefts are not uncommon in Rio de Janeiro.

⁴Many of the non-favela residents resided outside of the capital city, in the nearby exurbs, like the cities of São Gonçalo or Duque de Caixias. The lower income parts of these cities are also plagued by violent crime, though they are less likely to be called “favelas” since they are not as segmented and topographically distinct as the settlements in the capital.

Figure 2: How Voters Got Information during Campaign, by Favela Residency



concerned with making ends meet and with corruption. I asked the question, "In your opinion, what is the most serious problem facing the country?", using identical wording and an identical question format as the question on the LAPOP Public Opinion Barometer. The question was pre-coded open ended, and I coded all responses into one of six categories. Both favela and non-favela voters are much more likely to be concerned about the economy, with unemployment ranking at the top of their concerns. Interestingly, they were also more concerned with corruption than the average voter, which was the single highest issue identified in the open-ended responses. They were less concerned with public security than the average resident, even though, as lower income individuals, they likely lived closer to crime than the average Rio de Janeiro resident.⁵ A final interesting observation is that favela voters in my sample were much more concerned than their non-favela counterparts about health, with one of them citing "a bad personal experience" in the open-ended response. I interpret this difference as indicative of the precarity and poor quality of social services in favelas vis-a-vis other low income communities.

3.2 Electoral campaigns

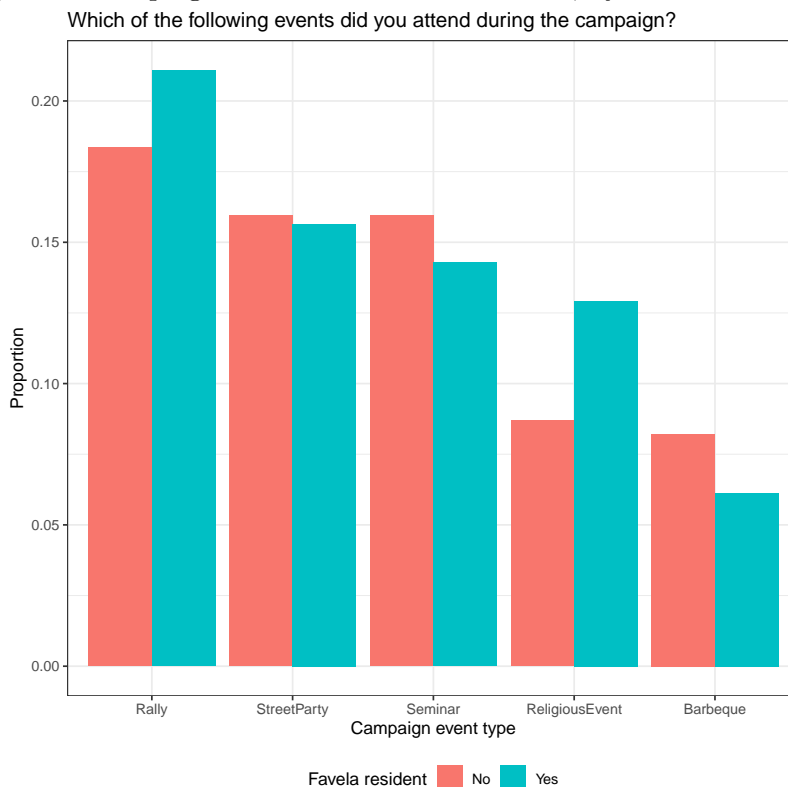
How political campaigns work in favelas are a black box to many, often including the candidates themselves. Candidates, journalists, and bureaucrats rely on anecdotes about local sources of power to better understand how political machines work inside these communities. These questions attempt to bring us closer to an understanding.

Figure 2 shows responses to the question, "How did you get information about candidates during the campaign cycle?" Results tracked closely with each other between favela and non-favela voters, but there are some enlightening differences. Face-to-face methods of receiving information are a more important source of information for favela residents. The columns in Figure 2 outlined in black show that word of mouth, pamphlet distribution, and events one type of information

⁵High fear of crime among unlikely victims is common, as is acclimation to high crime rates for those that live in more violent neighborhoods (Owens and Ba 2021).

dissemination to reach relatively more people in favelas than in non-favelas. This suggests that campaign types which rely on local spheres of power and face-to-face networks have a slightly higher reach in favelas than in non-favelas. The two most frequent ways to get information, both inside and outside favelas, were through television: either the public programming *Hora Eleitoral* or through ads and information on other channels.

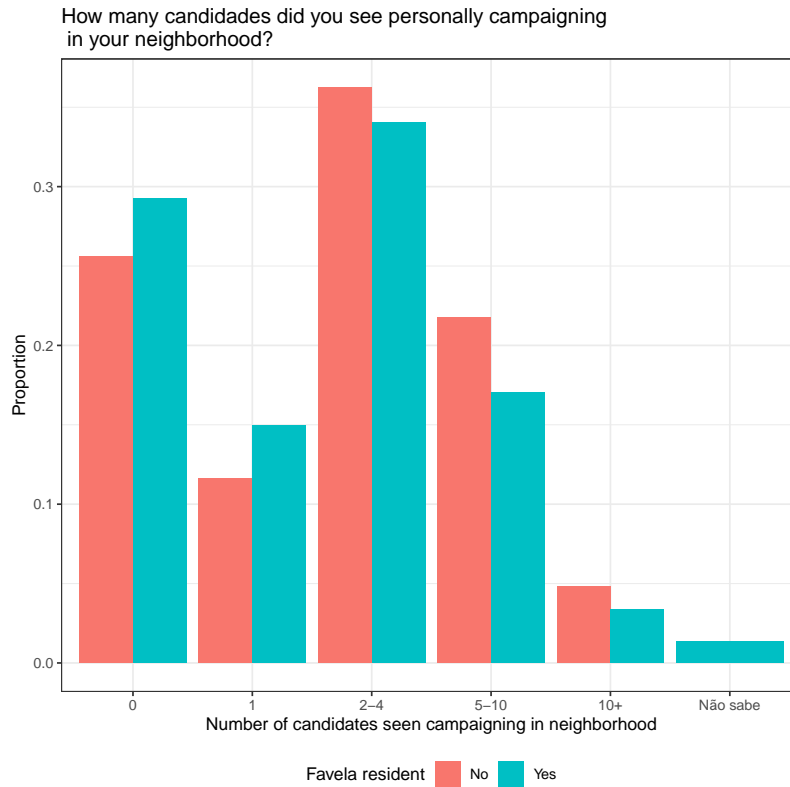
Figure 3: Campaign Events Residents Attended, by Favela Residency



The next two questions try to paint a clearer picture of what in-person campaigning looks like in my respondents’ neighborhoods. Figure 3 asks which events respondents attended during the campaign, and notes some substantial differences between favela residents and not. Favela residents were more likely to attend rallies than their non-favela counterparts, and much more likely to attend events at their church or sponsored by a religious organization. After rallies, street parties and seminars were the second and third most popular form of event for both groups. Figure 4 supports the claim that favelas have fewer candidates campaigning there in-person.⁶ My survey respondents living in favelas were relatively more likely to say they witnessed zero or one candidate campaigning in their neighborhood, whereas respondents living outside a favela were relatively more likely to say they witnessed five to ten, or even more than ten candidates campaigning. The modal response for both types of residents was 2-4 candidates. Together, Figures 3 and 4 tell us respondents observed fewer candidates campaign in favelas than outside of them, and rallies and religious campaign events were especially popular inside favelas.

⁶I develop these claims further in Trudeau (2022).

Figure 4: Number of Candidates Seen in Neighborhood, by Favela Residency



I then ask if respondents were aware of candidates returning to the community if elected. Figure 5 provides substantial evidence that neither respondents living inside or out of favelas expect elected candidates to return to their community. There was no difference between groups, consistent with some of my interviews with voters who stressed that candidates “throw out the[ir cell phone] chip and never return” after winning an election with the help a favela.⁷

4 Experimental results

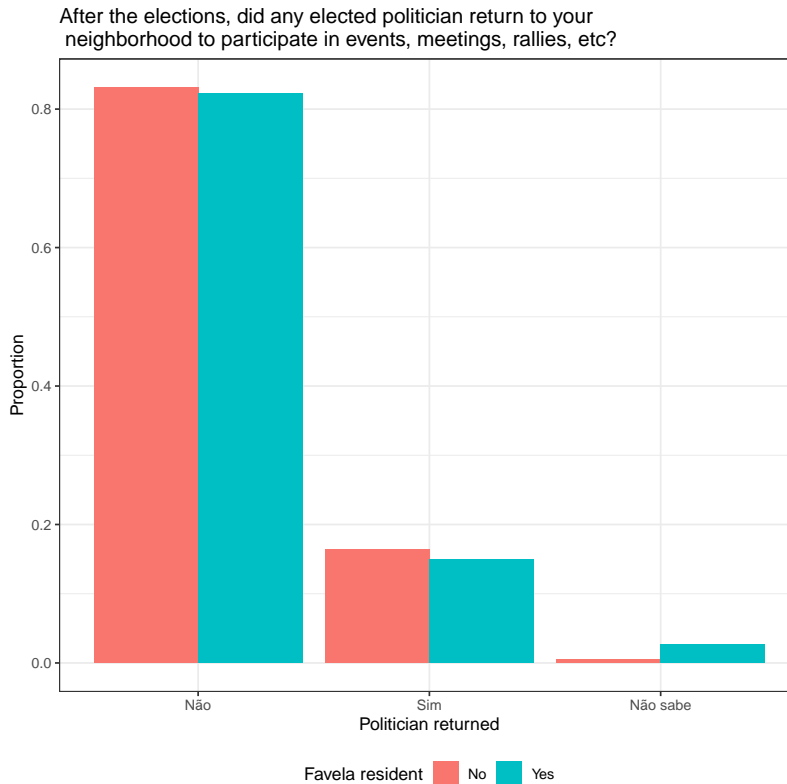
In the survey, I conducted a list experiment (Blair and Imai 2012; Blair, Imai, and Lyall 2014) to ask voters about different types of clientelistic activity they observed between criminal groups and politicians in their neighborhood. The questions focused on “neighborhood groups,” and as is standard with list experiment protocol, my control group was presented with a list of four possible organizations present in the neighborhood.⁸ The treatment group was presented with the same list of groups, but with the addition of the “Drug Trafficking Organization” group.

In the list experiment, I test for the presence of four common types of activities indicative of a politician-broker relationship: deal-striking, broker-provided access to voters, mobilization of voters, and monitoring. There was strong supporting evidence of the existence of deal-striking

⁷ Author’s interview, Favela Resident, July 23, 2017

⁸ See Appendix A1 for the experimental set-up and list of groups.

Figure 5: Politician Seen Returning Post-Elections, by Favela Residency



between criminal groups and politicians. Figure 6 shows that there is broad consensus among survey respondents that drug trafficking organizations are willing to “accept presents, favors, or bribes from a candidate.” My results support my central claim that politicians are not merely passive actors in the criminal-politician relationship, but may behave in the same strategic and enterprising way that they are characterized in the clientelism literature. It also indicates that politicians can be bribe-givers—not just bribe-takers—when it is electorally advantageous for them to do so.

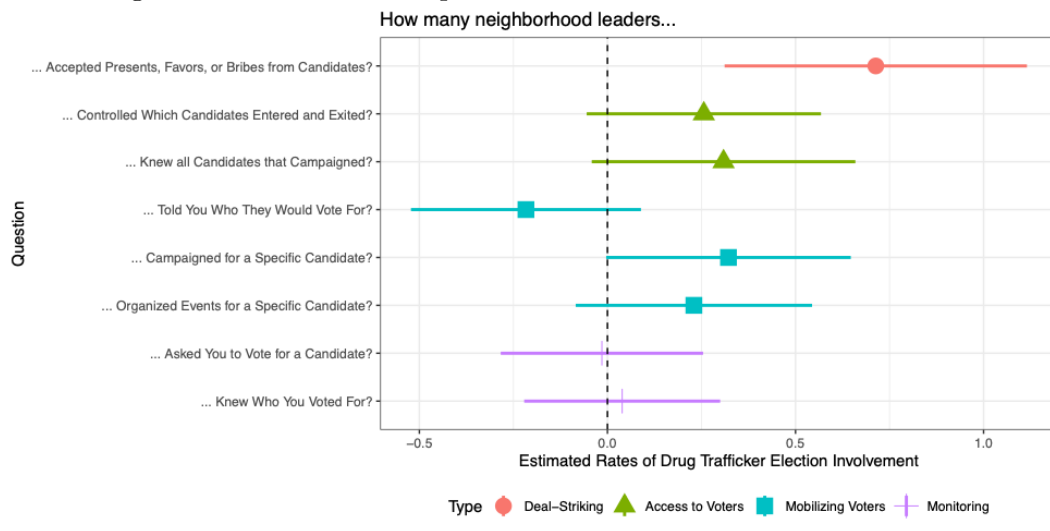
There is some supporting evidence of criminal groups providing access to voters. Respondents indicate that they perceive that drug trafficking organizations “control which candidates entered and exited” and “know all candidates that campaigned,” behaviors indicative of *gatekeeping*⁹ and controlling access to voters, though the effect size is slightly smaller than that of deal-striking behaviors (Aspinall and Hicken 2020; Zarazaga 2014).

The effect is also slightly smaller in the third category, voter mobilization. There is weakly positive (though not statistically significant at the .05 level) evidence of two of three behaviors related to voter mobilization, specifically “organizing events for a specific candidate” and “campaigning for a specific candidate” in the neighborhoods they dominate.

Lastly, I find little evidence that survey respondents think that criminal organizations monitor voters. This finding, however, is broadly consistent with the evidence on monitoring in the broader research on clientelism: 82% of papers in the field find no evidence of broker-mediated monitoring

⁹Gatekeeping as a concept is introduced in greater detail in .

Figure 6: Candidate Perceptions of Criminal Clientelism Prevalence



This plot shows the difference in means for the list experiment questions about campaign strategies and involvement of drug trafficking organizations. As is conventional for a list experiment, the control group was shown a list of neighborhood organizations, and the treatment group was shown a list of the same number of organizations, with the addition of drug trafficking organizations. After a comprehension check with respondents, my enumerators asked the following eight questions. The coefficient reported is the difference in means between the treatment group and the control group. A positive coefficient can be interpreted as the effect size of the treatment condition, the drug traffickers.

of voters (Hicken and Nathan 2020).

5 Conclusion

IN PROGRESS

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A1 Survey Instrument

A1.1 List Experiment

I use the list experimental design to measure the prevalence of campaign actions that candidates usually may want to conceal. After showing the respondent their list (Table 1) of possible organizations, explaining the instructions,¹⁰, and doing a practice question, I ask the following questions:

Knowledge of criminal groups in community:

1. How many of these organizations were present in your neighborhood before and during the 2018 elections?
2. In how many groups would you say you know at least one person in your neighborhood?

Criminal groups as brokers: Deal-striking

3. How many of these groups do you think accepted gifts, bribes, or favors from candidates that wanted to run a campaign in your neighborhood?

Criminal groups as brokers: Monitoring

4. How many leaders of these groups asked you to vote for a specific candidate?
5. How many leaders of these groups do you think know who you voted for, despite the ballot being secret?

Criminal groups as brokers: Mobilizing voters

6. How many leaders of these groups told you the name of the specific candidate they were going to vote for?
7. How many leaders of these groups passed out pamphlets or other campaign materials for a candidate?
8. How many leaders of these groups hosted or helped organize campaign events for a candidate?

Criminal groups as brokers: Access to voters

9. How many leaders of these groups control which candidates can enter or exit your neighborhood safely?
10. How many leaders of these groups know all the candidates that were running a campaign in your neighborhood?

¹⁰The instructions are as follows: All of the following of these questions are about the 2018 campaign in your neighborhood – for President, Governor, Federal Deputy, or State Deputy. I’m going to show you a list with the names of different groups and individuals on it. After I read the entire list, I’d like you to answer the following questions stating only the total number of the groups – not telling me which ones you are referring to, just the total number.

A1.2 Endorsement Experiment

I then examine voter preferences for criminal involvement in politics through the use of an endorsement experiment. I show respondents four vignettes that describe politicians doing standard campaign actions in their neighborhoods. In treatment groups 1 and 2, I show that the candidate was "endorsed" by the drug traffickers or militia, respectively. An example vignette for the control group is shown below:

A candidate will hold a barbecue in front of the primary school in your neighborhood and says that he wants to improve the public schools in your neighborhood. There are many people in your neighborhood that support him but others do not.

This vignette was shown to the treatment groups in the following way:

A candidate **the traffickers/the militias in your neighborhood know** will hold a barbecue in front of the primary school in your neighborhood and says that he wants to improve the public schools in your neighborhood. There are many people in your neighborhood that support him but others do not.

I then asked the respondents five questions, on a scale from (1) *Definitely yes* to (5) *Definitely not*. The first question varies depending on the action described in the event, and questions (2) through (5) are constant:

1. Would you go to the event? / Would you take a pamphlet? / Would you forward the information? / Would you go to the event?
2. Would you support this candidate?
3. How likely are you to vote for this candidate?
4. Do you think this candidate would make your life better?
5. Do you think this candidate would be an honest politician?

A1.3 Additional Questions

Other questions related to perceptions of corruption and crime in the descriptive block of the survey (asked before the experimental questions) include:

1. In your opinion, what is the most serious problem the country is facing today?
2. How many candidates did you see campaigning personally in your community?
3. Did you go to any in-person campaign events?
4. Can you describe the typical candidate that campaigns in your community?
5. Did you attend any of the following events during the campaign?
 - (a) Commission
 - (b) Barbeque

- (c) Block party
 - (d) Speech
 - (e) Religious event
6. Did you see the final count at your polling station?
7. Since the elections, to your knowledge, have any elected politicians come to your neighborhood to host events, agendas, commissions, etc?
8. If so, who? What was the event?
9. Compare the achievements of the current governor (Wilson Witzel) to that of the former governor (Pezão). Respond on a scale of 1 to 5, where the number 1 indicates “much worse” and the number 5 indicates “much better.” The work of the current governor of Rio de Janeiro is...
- (a) Much worse
 - (b) Somewhat worse
 - (c) About the same
 - (d) Somewhat better
 - (e) Much better
 - (f) Does not know
 - (g) Did not reply
10. Compare the achievements of the group of current state deputies to that of the former group of state deputies in the Legislative Assembly. Respond on a scale of 1 to 5, where the number 1 indicates “much worse” and the number 5 indicates “much better.” The work of the current state deputies of Rio de Janeiro is...
- (a) Much worse
 - (b) Somewhat worse
 - (c) About the same
 - (d) Somewhat better
 - (e) Much better
 - (f) Does not know
 - (g) Did not reply
11. Consider the levels of corruption in Rio de Janeiro. Respond on a scale of 1 to 5, where the number 1 indicates “much less” and the number 5 indicates “much more.” Compared to last year, today there is...
- (a) Much worse
 - (b) Somewhat worse
 - (c) About the same

- (d) Somewhat better
 - (e) Much better
 - (f) Does not know
 - (g) Did not reply
12. Consider the levels of violence in Rio de Janeiro. Respond on a scale of 1 to 5, where the number 1 indicates “much less” and the number 5 indicates “much more.” Compared to last year, today there is...
- (a) Much worse
 - (b) Somewhat worse
 - (c) About the same
 - (d) Somewhat better
 - (e) Much better
 - (f) Does not know
 - (g) Did not reply
13. Now changing the topic, have you been the victim of any type of crime in the last 12 months? Or, have you been the victim of physical aggression, assault, robbery, kidnapping, fraud, deceit, extortion, violent threats, or any other type of crime in the last 12 months?
14. If yes, how many times were you the victim of crimes in the last 12 months?
15. Considering the place where you live, and thinking about the possibility of becoming a victim of assault or robbery, do you feel very safe, a little safe, a little unsafe, or very unsafe?
- (a) Very safe
 - (b) A little safe
 - (c) A little unsafe
 - (d) Very unsafe
 - (e) Does not know
 - (f) Did not reply
16. Considering the place where you work, and thinking about the possibility of becoming a victim of assault or robbery, do you feel very safe, a little safe, a little unsafe, or very unsafe?
- (a) Very safe
 - (b) A little safe
 - (c) A little unsafe
 - (d) Very unsafe
 - (e) Does not know
 - (f) Did not reply

17. If you were the victim of a robbery or assault, how much would you trust that the judicial system would punish the culprit?

- (a) Very
- (b) Some
- (c) Little
- (d) None
- (e) Does not know
- (f) Did not reply