## Voting for Law and Order in Mexico<sup>\*</sup>

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#### Abstract

In this article, we present the results of an original survey experiment designed to explore the formation of policy preferences against crime. We focus on three short-cuts through which voters process and filter information and, consequently, make decisions: (1) voter experience of crime victimization, (1) non-policy advantage from candidates occupation; and (3) partisan advantages and voters' partisan identities. To assess the role of these different channels, we model voters' decision to support candidates campaigning over a variety of security proposals using a conjoint experimental design within a national online survey in Mexico. We use recent developments on network models to measure the effects of victimization on voters' preferences. Our main results indicate that victimization explains higher support for more punitive policies as well as for candidates with a background in law and order enforcement agencies. Although we find null effects of partisan advantages, we show other relevant ways through which voters distinguish credible security policies.

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## 1 Introduction

As violence and insecurity expands in Latin America, citizens across the region have demanded new and effective approaches to control crime (Holland, 2013; Krause, 2014a; Visconti, 2019). In particular, there seems to be a growing taste for iron-fist policies—ranging from the constriction of due process to the militarization of the police (Holland, 2013; Krause, 2014a; Visconti, 2019; Flores-Macías and Zarkin, 2019). About eight out of ten Latin Americans agree harsher punishment of criminals will reduce crime (Price et al., 2019), and the approval rates for the intervention of the armed forces to combat crime are above 60% for all countries in the region (Pion-Berlin and Carreras, 2017).

We would expect that candidates and parties respond to such policy demands by offering more punitive approaches against insecurity. However, the way in which the demand for punitive policies interacts with the actual proposals offered during elections remains unknown. Are some security policies electorally more attractive for voters afflicted by violence? Do citizens value all *mano dura* policies in a similar way? Do certain profiles of parties and candidates gain more support when associated with more punitive policies?

In this paper we examine the logic of voters' strategic choices on security policies in the context of violent democracies. Our theory and empirical model emphasises two interactive dimensions. On the *demand* side for security policies, we consider what makes some security policies more attractive to voters, paying special attention to behavioral effects of crime victimization and partisanship. On the *supply* side of policy options, we explore how candidates' backgrounds and party reputation affect the credibility of iron-fist policy proposals. Exploring both dimensions simultaneously allows us not only to delve into the role of victimization experiences on voters' electoral and policy preferences, but also to explore the process through which voters assess candidate profiles amid security concerns.

To evaluate our argument, we combine a candidate-choice conjoint experiment with a survey design that estimates exposure to crime victimization at the respondents' personal network. The conjoint allows us to understand citizens' preferences for security policies under different candidate and party profiles. Additionally, we use information from the respondent's friendship network to estimate their exposure to victimization. This approach allows us to collect more reliable and fine-grained information about the exposure of survey respondents to criminal violence.

Our research design addresses two key empirical limitations in the existing literature about preferences for iron-fist policies. First, extant works on security policy preferences —both experimental and observational— face important measurement challenges. These studies commonly rely on abstract or purely attitudinal measures of support for *mano dura* to identify the extent to which the demand for weak procedural policies is affected by experiences of crime victimization (Visconti, 2019; Holland, 2013; Cohen and Smith, 2016; Gerber and Jackson, 2016; Singer et al., 2020; Krause, 2014b; Garcia-Ponce et al., 2019). This approach is both vulnerable to social desirability bias and has limited generalization when thinking about more realistic settings where policy decisions are made. To mitigate these concerns, our conjoint experiment measures changes in voters' behavior through a candidate-choice task, approximating both voters behavior, preferences for concrete options on security policies, and varying candidates' profiles in multiple dimensions.

Second, a major concern in recent studies investigating the effects of violence on policy preferences refers to the actual measurement of an individual's exposure to criminal violence. Measuring actual victimization through survey data is difficult, prone to both survey sampling error and underreporting bias. To address this challenge, we take advantage of multilevel modelling strategies from social network analysis, and use indirect survey questions to build a contestual measure of exposure to crime victimization (Zheng et al., 2006; Calvo and Murillo, 2019, 2013; McCarty et al., 2001). This novel strategy for the study of crime victimization, combined with the conjoint estimates, allows us to deliver precise and higher externally valid estimates for how citizens update their preferences for security policies amid violence.

Our paper presents three main findings. First, higher exposure to crime victimization significantly increases the support for iron-fist policies, such as the death penalty. This effect is observable even after controlling for other features as the party, gender, and occupation of the candidates. Second, higher exposure to crime also increases the support for candidates previously employed in the local police forces. Therefore, victimization does not only have a policy effect, but also shapes which candidates become more attractive among voters more exposed to violence. Finally, we do not find partian effects among Mexican voters' preferences for security polices. When comparing leftists and more conservative voters, we do not observe statistically significant differences in their respective support for more harsh-on-crime policies or other candidates' profiles.

The paper proceeds as follows. First, we present an overview of the literature on the logic of individual support for punitive security policies. Next, we develop our demand-and-supply argument on individual preferences for iron fist policies and subsequently present pre-registered hypothesis.<sup>1</sup> The fourth section introduces the Mexican case, on which we evaluate our proposed hypotheses. Then, we describe our empirical strategy in detail, including our network model. In the sixth section, we present the main results of our analysis, including the discussion of interesting features of victimization networks in Mexico. Finally, in our concluding section, we

<sup>&</sup>lt;sup>1</sup>Pre-registration available at [REDACTED]

derive relevant theoretical and empirical implications of our findings.

## 2 On Individual Security Policy Preferences

Our work seeks to contribute to a growing literature on the effects of violence on policy preferences, with a focus on security-related policies, which have been largely addressed by criminologists and political scientists alike. In this section, we briefly examine the main findings of these two disciplinary approaches and frame our theoretical contribution, given this research.

Within criminology, various works have assessed public support for punitive  $vis-\dot{a}-vis$  rehabilitative policies. This group of works consistently finds that fear of crime and perceptions of insecurity decrease the support for rehabilitative policies. However, the evidence on the effect of victimization is mixed. For example, while Baker et al. (2016) find that victimization experiences cannot predict crime policy preferences, Cohen et al. (2006) find that prior victimization is associated with higher support for prevention policies.

Political scientists have likewise examined the role of individual encounters and reactions to violence in policy preferences for public security (Krause, 2014b; Visconti, 2019; Garcia-Ponce et al., 2019). Overall, these studies have consistently found that victims exhibit a higher support for *mano dura*. Victims are more likely than non-victims to approve the use of state repression (Visconti, 2019) and extrajudicial means (Garcia-Ponce et al., 2019). Beyond the individual victimization status, reactions towards crime can also affect policy preferences. In this regard, fear of crime is not automatically associated with higher support for authoritarian crime control (Krause, 2014a), but anger is an alternative response to insecurity that has been associated with higher support for punitive justice (Garcia-Ponce et al., 2019).

The expansion of militarized approaches to address crime in the Latin American region has

led scholars to examine public support for such policy. Recent work by Flores-Macías and Zarkin (2021) shows that the appearance of the armed forces can serve as a low-information heuristic that people rely on to form opinions about their effectiveness in the control of crime. The authors find that military weapons and uniforms enhance perceptions of effectiveness and respect for civil liberties, which could ultimately affect the support for militarization—a common example of a punitive policy.

Another set of studies within political science has moved away from the effect of shortterm reactions to crime and focused on longer-term political features that also condition voters' preferences for security policies. Such explanatory factors include ideology, partisanship, and political regimes. Two main findings of these studies stand out. First, conservative voters are more likely to support harsh criminal policies (Cohen and Smith, 2016; Gerber and Jackson, 2016). Second, conservative parties who own the issue of security are more likely to win voters' support when crime issue becomes more salient (Holland, 2013).

Although criminologist have addressed the role of perceptions of insecurity and victimization on security policy preferences, this group of studies has disregarded the political logic behind such preferences. Within political science, extant research—either considering short- or longterm factors—only accounts for the demand for iron-fist policies as an outcome variable. As a result, these works are unable to consider a more complete picture of the electoral arena, the diverse policy alternatives that parties and candidates may offer, as well as how such options interact with voters' priorities, perceptions, and underlying characteristics. By capturing only a part of the wide variation on policy approaches to crime, these studies are unable to delve into the concurrent paths through which victimization and perceptions of insecurity might shape policy decisions and voters' behavior. The theoretical argument and the subsequent research design that we propose here account for these interactive dimensions between voters, parties, and candidates. We seek to address the politics of security policy preferences that criminologists have omitted. Furthermore, we expand the analysis beyond voter demand for punitivism and examine its interaction with policy supply in the context of an election.

## **3** Voting for security

Our goal in this paper is to understand the logic of individual support for security policy proposals. We claim that such analysis must consider the interaction between voters' preferences and candidates' security policy offers. We further contend that this demand-and-supply dynamic largely depends on voters' informational short-cuts through which citizens process policy alternatives and choose among them. Two dimensions are particularly relevant for voters to make such decisions: (1) their own personal experiences with violence and (2) candidates' profiles.

### 3.1 Violence and victimization experiences

Previous studies have documented the relationship between crime victimization and citizens' policy preferences in Latin America. Recent comparative studies have found that victims of violence show lower levels of trust in democratic institutions (Fernandez and Kuenzi, 2010; Carreras, 2013; Krause, 2014b; Pérez, 2015) and criminal justice agencies (Malone, 2010a; Blanco, 2013). The effects of violence on security policy preferences have also been documented. Victims of urban violence usually become more supportive of tough-on-crime security policies in Latin America (Visconti, 2019; Garcia-Ponce et al., 2019).

While the previous literature focus mostly on personal experiences of victimization, we argue in favor of a broader notion of exposure to crime. In contexts permeated by organized crime activity in which criminals and state agents both interact and overlap, violence magnifies even further. Therefore, being a victim of criminal violence is neither a one-time violent act nor an exclusively individual experience, but a continuous interactive and collective process among victims, criminals, the state, and society at large (Moncada, 2020).

We contend, therefore, that considering the social bonds among victims can lead to a more grounded understanding of individual exposure to crime and crime victimization, which subsequently affects perceived policy needs and preferences. As Villarreal and Silva (2006) show, information exchanges through networks of individuals experiencing and perceiving crime can have profound attitudinal consequences and lead to a heightened sense of insecurity, which recent works have shown to greatly affect policy preferences (Visconti, 2019; Altamirano et al., 2020; Flores-Macías and Sánchez-Talanquer, 2020). Therefore, we propose that:

**Hypothesis 1.** Respondents that have faced crime victimization within their network are more likely to support punitive policies.

### 3.2 Candidate Profiles and Perceptions of Party Competence on Security Policies

Although voters' characteristics and experiences with violence are likely to shape an initial demand for punitive policies, such preferences must ultimately confront the actual proposals offered by candidates and their parties. These policy preferences interact with the characteristics of candidates and parties, informing and shaping citizens' strategic decisions. It is necessary, therefore, not only to consider the demand, but also the supply side of this dynamic game to understand the conditions under which some candidates might benefit when campaigning on security as a policy issue.

A way to explore who gains and who loses when public security policies increase salience is to consider the heuristics voters use to infer about those who make policy offers. Previous studies have shown how these heuristics —or non-policy advantages (Calvo and Murillo, 2019)— can be observed from multiple paths, such as candidate's occupation, their local experience, personal credibility, or reputation and issue advantages from their political parties (Botero et al., 2015; Campbell and Cowley, 2014; McDermott, 2005; Kaplan et al., 2006; Petrocik, 1996). These advantages on the supply side can emerge both at the candidate or party level, and are crucial to understand voters' strategic decisions.

At the individual level, some candidates might have attributes that help voters make inferences about their credibility (Ferejohn, 1986; Przeworski et al., 1999; Besley, 2006). Such credibility helps voters to distinguish between an empty promise and a credible policy proposal (Iyen, 2000; Botero et al., 2015; Lupia, 2002). An important credibility signal is the candidate's professional experience in a given bureaucracy or policy area is a way to signal about this credibility advantage (McDermott, 2005). As recent evidence shows, the image of an individual in military uniform increases her perception of effectiveness in law enforcement Flores-Macías and Zarkin (2021). Therefore, we expect that police forces and candidates with a previous experience on public security agencies use their professional experience as an informational heuristic signaling to voters about their competence, commitment, and credibility to prioritize security when elected. Accordingly, we propose that:

**Hypothesis 2.** Candidates profiles whose work experience is unrelated to public security are less likely to be selected.

At the party level, non-policy advantages are commonly described in the literature as party issue ownership (Calvo and Murillo, 2019; Kaplan et al., 2006; Petrocik, 1996). According to this argument, conservative parties tend to have a stronger association with crime control policies, therefore, "owning" the issue of security (Kaplan et al., 2006; Petrocik, 1996). The valence

advantage of conservative parties as more competent and credible to fight against crime allows them to benefit from the the growth of *mano dura* policies in the region. In El Salvador, for example, the increasing demand for punitive policies allows conservative parties to "draw on language, figures, and founding myths from periods of authoritarian control to lend credibility to claims that they will provide security at all costs" (Holland, 2013, p. 52). Therefore we expect that:

**Hypothesis 3.** Candidates profiles affiliated with more conservative parties are more likely to be selected.

Occupational and party heuristics also supply voters with information about a candidate's policy preference, consequently helping voters to choose candidates more aligned with their own policy positions (Nicholson, 2012; Lau and Redlawsk, 2001; Arceneaux, 2008). For the specific case of public security in Latin America, police forces, candidates emerging from security agencies, and more conservative parties are usually associated with more punitive security policies (Frantz, 2018; Bueno, 2012; Cano, 1997; Magaloni and Rodriguez, 2020) and these heuristics are appealing to voters' with more punitive preferences. As a result, beyond non-policy (valence) advantages, conservative candidates and those with criminal justice system experience are more likely to be chosen when associated with more punitive policies. We, thus, expect that:

**Hypothesis 4.** Conservative parties and candidates with professional experience on public security will be more likely to be selected when associated with more punitive policy proposals compared to other more crime prevention policy approaches.

To summarize, we argue that voter support for punitive policies is determined through an interactive process between voters and candidates. Among voters, their shared victimization experiences affect their security policy preferences. Among candidates, we argue that candidate profiles—regarding both their professional backgrounds and party affiliations—are crucial heuristics that help voters make their final decision.

To test the proposed hypotheses, we use data from a conjoint experiment embedded in a nationally representative survey in Mexico. The goal of our experiment is to assess the electoral value of candidates' personal attributes and campaign promises. As noted, we focus on those features related to public security that may shape voters' preferences for candidates in local elections and evaluate their interaction with voters' experiences and subsequent concerns. Below we provide a brief description of the context of our case study.

## 4 Contextual Background: Crime Victimization in Mexico's Local Elections

Violence and crime took over Mexico's national agenda after President Felipe Calderón declared war on drug cartels in late 2006. The confrontation of the army against drug trafficking organizations intensified inter-cartels conflict and drug-related violence skyrocketed (Trejo and Ley, 2020). The sudden rise of violence was followed by citizens' concern about safety. The share of Mexicans considering public security as the most important problem in the country went from 21% in March 2004 to 49% in June 2007.<sup>2</sup> By 2019, insecurity was considered Mexico's most important problem for about 67% of the citizens in the country.<sup>3</sup>

The concerns about public security raised in importance not only at the national level but also at the local level. In 2019, 79% of citizens considered insecurity as the most important issue in their state, standing as the most mentioned problem in 31 out of 32 states in the

<sup>&</sup>lt;sup>2</sup>See Mancillas, María Antonia and Alejandro Moreno "Destacan alternancia como mayor logro," *Reforma*, September 1, 2004 (p. 9A); Moreno, Alejandro and María Antonia Mancillas "Ven voluntad presidencial," *Reforma*, December 1, 2008 (p. 6).

<sup>&</sup>lt;sup>3</sup>"Encuesta Nacional de Victimización y Percepción sobre Seguridad Pública (ENVIPE) 2019" Instituto Nacional de Estadística, Geografía e Informática, 2019.

country.<sup>4</sup> Moreover, 73% of citizens in Mexico's seventy largest urban areas felt unsafe in their community, and only a minority of them perceived the state police (48%) and municipal police (40%) as effective.<sup>5</sup>

Citizens' growing demand to improve public security provided a solid ground for toughon-crime campaign promises in state and municipal elections, where candidates often position themselves by announcing whether they align or not with the security policies implemented by the federal government (Ley, 2017). Anecdotal evidence suggests the popularity of such policies, with several candidates and elected officials discussing extreme measures to crub crime, such as the creation of death squads to hunt down criminals,<sup>6</sup> or the official adoption of physical injuries against criminal suspects.<sup>7</sup> In the next section, we further discuss how we map these policy proposals into our conjoint design; we provide examples of actual security policy proposals local elections in Mexico and which resonate with the options in our experiment.

Approaches to public security also represents an important campaign issue among parties. The clearest example is Mexico's Green Party, which endorses life imprisonment and death penalty.<sup>8</sup> Among the three largest parties in the country, the last presidential campaign marked a clear divide between the public security proposals from the Revolutionary Institutionalized Party (PRI) and National Action Party (PAN), on the one hand, and the National Regeneration Movement (MORENA), on the other. During the first presidential debate, MORENA's Andrés Manuel López Obrador proposed amnesty for those caught up in the illegal drug trade. This

 $<sup>^{4}</sup>Ibid$ 

<sup>&</sup>lt;sup>5</sup>"Encuesta Nacional de Seguridad Pública Urbana (ENSU), 2020" Instituto Nacional de Estadística, Geografía e Informática, 2020.

<sup>&</sup>lt;sup>6</sup>Cedillo, Juan Alberto "Crime-Fighting Mexican Mayor Sends Family Abroad for Safety" *Latin American Her*ald Tribune, November 17, 2020. (http://www.laht.com/article.asp?ArticleId=347489&CategoryId=14091)

<sup>&</sup>lt;sup>7</sup>Daniel, Frank Jack "Cut off hands': Mexican presidential candidate's plan to deter thieves" *Reuters.* April 22, 2018. (https://www.reuters.com/article/us-mexico-election-bronco/ cut-off-hands-mexican-presidential-candidates-plan-to-deter-thieves-idUSKBN1HU0DZ)

<sup>&</sup>lt;sup>8</sup>Tuckman, Jo "Mexico's Greens: pro-death penalty, allegedly corrupt—and not very green" *The Guardian* April 21, 2015. (https://www.theguardian.com/world/2015/apr/21/mexico-green-partylLópezObradora-corruption-claims-environment)

proposal was part of his campaign proposal summarized in one of his campaign slogans: "hugs, not bullets." The proposal was severely opposed by the PAN and PRI, who suggested that would put the state "on the side of criminals."<sup>9</sup>

Taken together, the circumstances surrounding contemporary local elections in Mexico—the rise of drug-related violence, citizens' concerns about public insecurity, and local candidates' emphasis on an iron fist approach to crime—provide a good basis to explore which campaign promises on public security are most relevant in shaping voters' preferences for candidates, and whether these preferences vary according to individual exposure to crime and candidates' profiles.

## 5 Empirical Strategy

## 5.1 Conjoint Experiment: Measuring Support for Mano Dura in Realistic Settings

Our goal is to explore the trade-offs voters face in real-life settings when security policies across distinct candidates differ. Therefore, we designed a conjoint experiment that exposes respondents to different candidates' profiles and security policies campaign proposals (Hainmueller et al., 2014).<sup>10</sup> In particular, respondents are faced with the profiles of two hypothetical candidates for a municipal election. Given that our argument revolves around the effects of candidates' backgrounds, each candidate's profile is a random selection of characteristics along four dimensions: work experience, policy proposal for public security, gender, and political party (see Table

 $<sup>^{9}</sup>NBC$ 2018.presidential News April 23.Mexico debate: Front-runner Lopez Obrador defends amnestv to fight drug violence (https://www.nbcnews.com/news/latino/ mexico-first-presidential-debate-front-runner-lopez-obrador-defends-amnesty-n868306): NPR July 23,2020.AsMexico's Dominant Cartel Gains Power. The Pres-Not Bullets' (https://www.npr.org/2020/07/23/893561899/ ident Vows 'Hugs, as-mexicos-dominant-cartel-gains-power-the-president-vows-hugs-not-bullets).

<sup>&</sup>lt;sup>10</sup>The experiment was included in a national online survey in Mexico with 2.400 respondents. The survey was fielded by Netquest-Vanderbilt, with probabilistic samples drawn by the LAPOP team in Vanderbilt from users registered with Netquest. The experiment received the approval of [REDACTED]

1). Then we asked the respondent: "Imagine that the mayoral election is between these two candidates. Which one would you vote for?" Respondents repeated this exercise for one additional pair of hypothetical candidates.

This experimental design offers several advantages. First, the respondents are exposed to a wide set of policy proposals for public security, which range from rehabilitative policies to more punitive approaches to deal with crime. Our proposal, therefore, stands out by measuring behavior considering a broad and realistic set of policies that voters can choose from in a given election.<sup>11</sup> The choices of policy proposal considered in our experiment resonate with those that mayoral candidates have actually presented in their campaigns. Crime prevention approaches in local electoral campaigns vary, from attention to the youth <sup>12</sup> to community centers.<sup>13</sup> In the most recent 2021 mayoral campaign in Zapopan, Jalisco—a municipality with active presence of Jalisco New Generation Cartel—nine candidates proposed to increase the number of police officers and improve their training and equipment.<sup>14</sup> Investment in local police forces is a frequent proposal among mayoral candidates across Mexico.<sup>15</sup> Furthermore, over the last decade, a growing number of mayors have appointed members of the military as heads of their municipal police forces.<sup>16</sup> Following this trend, in recent years, several mayors have requested

<sup>&</sup>lt;sup>11</sup>Previous studies on preferences for punitive policies in Latin America rely mostly on abstract or purely attitudinal measures of support for *mano dura* (Visconti, 2019; Holland, 2013; Krause, 2014b; Garcia-Ponce et al., 2019) to identify to which degree the demand for weak procedural policies is affected by experiences of crime victimization

<sup>&</sup>lt;sup>12</sup>Rosales, Paulina. "Enrique Vega propone rescatar a jóvenes de las adicciones." *Diario de Querétaro*. April 21, 2021. https://www.diariodequeretaro.com.mx/local/enrique-vega-propone-rescatar-a-jovenes-de-las-adicciones-6626889.html

<sup>&</sup>lt;sup>13</sup>Among the main initiatives by Sonia Villarreal Pérez, PRI candidate to the municipal presidency in Piedras Negras, Coahuila, in the 2021 election, is the creation of a crime prevention policy, with a focus on young people. See http://www.candidatotransparentecoahuila.org.mx/vp2/candidatos4.php

<sup>&</sup>lt;sup>14</sup>Blanco, Sergio. "Seguridad, primer tema que abordaron candidatos a Zapopan en foro de Iteso." *El Informador*, April 15, 2021. (https://bit.ly/2Re0aXm).

<sup>&</sup>lt;sup>15</sup>Cubero, César. "Inseguridad, reactivación económica y otros retos en Monterrey...Esto dijeron candidatos en ForoMETA21." *Milenio*, April 20, 2021. https://www.milenio.com/politica/elecciones-2021/ monterrey-candidatos-alcaldias-propuestas-foro-meta21-envivo

<sup>&</sup>lt;sup>16</sup>See "México: Asesinatos, desapariciones y torturas en Coahuila de Zaragoza constituyen crímenes de lesa humanidad." Informe de la Federación Internacional por los Derechos Humanos al Fiscal de la Corte Penal Internacional. No. 695e, June 2017. (http://www.cmdpdh.org/publicaciones-pdf/cmdpdh-comunicacion-coahuila.

the appointment of members of the armed forces as heads of the municipal police.<sup>17</sup> Finally, some parties in Mexico have openly supported the death penalty and such policy has become a trademark for the Mexican Green Party.

Second, our design pays attention to the extent to which partisan identities and information cues shape and inform voters' preferences for iron-fist policies. Beyond varying policy proposals, our experiment also rotates the candidates' previous professional background, gender, and party affiliation. Again, our choices for work experience resonate with actual cases in recent Mexican elections. Former Tijuana police chief in Tijuana, Julián Leyzaola, was a mayoral candidate in the 2019 election.<sup>18</sup> In the 2021 election cycle, Hipólito Mora, a former self-defense leader, was appointed as a party candidate in the state of Michoacán. An owner of a private security company in Acapulco, Guerrero was also selected as the mayoral candidate of the Labor Party (PT).<sup>19</sup>

Given that all of our policy proposals relate to security, our design allows for simple identification of how heterogeneity on a valence issue can, nonetheless, give some advantage depending on the candidates' profile and partisan identification and affect voters' preferences when considering security concerns. Consequently, third, by exposing voters to a multidimensional behavioral choice, our conjoint experiment works as a useful resource for reducing social desirability bias—a concern particularly present in delicate issues as preferences for crime policies and victimization.<sup>20</sup>

pdf)

<sup>&</sup>lt;sup>17</sup>El Sol de Hermosillo. "Mando militar podría encabezar la Policía Municipal en Hermosillo." El Sol de Hermosillo. August 13, 2019. (https://www.elsoldehermosillo.com.mx/local/ mando-militar-podria-encabezar-la-policia-municipal-en-hermosillo-4034099.html)

<sup>&</sup>lt;sup>18</sup>El Sol de Tijuana. "Elecciones 2019...Conoce a los candidatos." *El Sol de Tijuana*. May 27, 2019. (https://www.elsoldetijuana.com.mx/local/elecciones-2019...conoce-a-los-candidatos-3680956.html)

<sup>&</sup>lt;sup>19</sup>Gómez Baray, Katyana. "¿Quiénes son las candidatas y candidatos a la presidencia municipal de Acapulco de Juárez?" El Economista. March 11, 2021. (https://www.eleconomista.com.mx/politica/ Quienes-son-las-candidatas-y-candidatos-a-la-presidencia-municipal-de-Acapulco-de-Juarez-20210511-0073. html)

<sup>&</sup>lt;sup>20</sup>By dealing with the challenges of social desirability bias, and simulating a more realistic setting, our conjoint

Feature	Choices
Work Experience	
	Chief of police
	Owner of Private Company of Security
	Human Rights Activist
	Leader of Self-Defense Group
	Public Employee
Policy proposal for Public Security	
	Death Penalty for the criminal
	Militarization of the police forces
	Building a welfare center to help victims of violence
	Increase the number of police officers, improve their training, and increase security cameras in the streets.
	Offer more job opportunities for the Youth
Gender	
	Male
	Female
Political Party	
	MORENA
	PAN
	PRI
	Independent

## Table 1 Candidate Profile Features and Choice Levels

Our quantity of interest is the marginal effect of each of the candidates' attribute on vote choice. We estimate it by quantifying the premium or the penalty that each candidate's attribute has on the voter's choice (Hainmueller et al., 2014).

provides more reliable estimates when compared with simple framing designs commonly used in the related literature on attitudinal effects of crime victimization and punitive preferences (Garcia-Ponce et al., 2019; Krause, 2014b).

To estimate each attribute's relative weight, we calculate the marginal effect of each attribute against a baseline, or the Average Marginal Component Effect (AMCE). AMCE is obtained by regressing the dependent variable—in this case, whether the hypothetical candidate was selected by the respondent—on a battery of dummy variables, each of them representing a specific attribute level. The regression excludes the estimation of one level per attribute, which works as the baseline category. Since each profile's attributes are fully randomized, the AMCE should be interpreted as the average difference in the probability that a profile is chosen when it includes the listed attribute value in comparison with the baseline attribute value.

All of our hypotheses are related to subgroup effects or interactions across the features. We then estimate the models using interactive terms between our moderators and the feature of interest. We present the numerical results in the Appendix and keep the graphical presentation in the paper for the marginal effects for each comparison (Brambor et al., 2006). Finally, we investigate the presence of carryover and profile order effects (Appendix F). Our graphical analysis and the joint significance F-tests do not indicate a violation to these two key assumptions for a conjoint design.

### 5.2 The Political Effects of Crime Victimization: A Network Approach

A growing literature in political science has explored the effects of crime victimization on policy preferences, mainly relying on survey data (Visconti, 2019; Garcia-Ponce et al., 2019; Altamirano et al., 2020). However, there are several challenges in the measurement of crime victimization, such as: i) social desirability bias, resulting from respondents refusal to share their victimization experience; ii) rare occurrence and serial correlation of victimization experiences, yielding a small percentage of victims captured in survey samples; and iii) high over dispersion of violence, concentrating victimization among some people and regions more than others.<sup>21</sup>

Given the methodological challenges in the measurement of crime victimization, we develop a novel measure using respondents' information from their friendship network (Zheng et al., 2006; McCormick et al., 2010; McCormick and Zheng, 2013; Calvo and Murillo, 2013). We build the network using information from survey questions framed as: "How many X's do you know, that also know you, and that you have interacted with in person, by phone, or by some other media in the last year?" The X's represents a vector of eighteen indirect items about the size and structure of our respondents' friendship network. Respondents then answered about how many people they know who, for example, are called Silvia, work as physicians, or work as teachers. Within this battery of questions, we inquired about the respondent's exposure to crime and violence by asking how many people she knows that were victims of crime.

This network approach allows us to address several challenges initially identified in the measurement of crime victimization. First, because we are not directly asking about personal experiences of victimization, our approach reduces challenges related to social desirability bias in survey responses. Second, we use the network information to augment the survey data, therefore, reducing concerns about sampling error, and serial correlation of victimization. In other words, our survey design, based on exposure to criminal violence in the respondents' network, provides a measure that goes beyond the idea of a one-time an and individually-experienced violent act (Moncada, 2020), while simultaneously capturing the degree of surrounding violence.

 $<sup>^{21}</sup>$ See (Visconti, 2019) for a similar discussion of making causal claims of behavioral effects of crime victimization using survey data. While Visconti's solution is to use panel data and matching algorithms to deal with these challenges, we take a different route by using fine-grained information from the respondents' friendship network to build a more detailed measure of contextual exposure to crime.

#### 5.3 A Network Model for Crime Victimization

In this section, we summarize our modeling strategy to identify the prevalence of victimization in the respondents' network. <sup>22</sup> Our survey asked a battery of eighteen indirect questions about the size and structure of our respondents' friendship network. We model the responses using the overdispersed multilevel estimation, as follows:

$$y_{ik} \sim \text{Negative-Binomial}(e^{\alpha_i + \beta_k + \epsilon_i k}, \omega_k)$$
 (1)

The  $\alpha_i$  parameter measures the size of the respondents *i* network.  $\beta_k$  estimates the relative prevalence of each group *k* in the population. And the parameter  $\omega_k$  controls the overdispersion of the groups *k*. In this case, higher values of  $\omega_k$  indicate more variation among the respondents in the prevalence of group *k* than would be expected under a null model, as well as a more dense network for the group *k*.

Previous works use  $\beta_k$  to identify the size and network structure of hard-to-reach population, such as those with HIV/AIDS, injection drug users, or the homeless (Killworth et al., 1998; Salganik et al., 2011; Bernard et al., 2010). In our measure, for the case of crime victimization, we are more interested in the capacity of the model to capture how each respondents is more/less exposed to crime victimization using variation from ones' friendship network. This substantive parameter is captured by the standardized residuals of the model, as stated below:

$$r_{ik} = \sqrt{y_{ik}} - \sqrt{e\alpha_i + \beta_k} \tag{2}$$

The residual  $r_{ik}$  provides critical and intuitive information. For our purposes, these quantity <sup>22</sup>For a complete exposure of the model, we direct the readers to Zheng et al. (2006) and chapter five in Calvo and Murillo (2019) for a political science application.

indicates to which degree individual i for each group k deviates from the overall group mean prevalence, given her personal network (how many people the respondent knows) as well as the group prevalence (how many "Silvia's" are in Mexico). In other words, a higher/lower residual indicates that a survey respondent is more/less exposed to criminal violence in their network of friends. By incorporating indirect responses and modeling the respondents' network, we have a richer and augmented information about how much criminal violence each respondent in our survey is exposed. Besides, we can model which individual-level information explains crime exposure and the correlation across different groups k.

The Appendix A provides two descriptive analyses about the characteristics of crime victimization in the respondents' network. First, Figure 7 illustrates the overall association between the social groups estimated through the subject's friendship network. The most important finding in the dendogram is the strong correlation between crime victimization and police violence. The fact that respondents who know more victims of crime also reported to know more victims of police violence confirms previous evidence of specific social groups being simultaneously underprotected and over-policed (Gelman and Hill, 2007; Edwards et al., 2019; Mummolo, 2018).

Second, Table 2 in the Appendix presents the results of regressing the residuals for crime victimization on a battery of covariates from our survey. The results show a lower degree of victimization for the networks of wealthier respondents. Moreover, confirming previous evidence on the topic, exposure to crime is positively correlated with fear of crime, considering security as a top policy priority, and support for punitive policies (Visconti, 2019; Cohen and Smith, 2016; Gerber and Jackson, 2016; Singer et al., 2020).<sup>23</sup> Finally, higher exposure in the friendship network to crime victimization is negatively correlated with trust in the police. This

<sup>&</sup>lt;sup>23</sup>For fear of crime, we average across three different survey questions asking about: i) fear of being alone at home, ii) walking on a dark street, iii) driving by oneself at night. For punitive preferences, we use an ordinal scale from the question: "In Mexico, too much importance is given to the rights of criminals."

finding is substantively important since lower trust in the police is likely to affect citizens' willingness to report crime and police abuse cases, therefore affecting accountability and the quality of democracy in Mexico (Gingerich and Oliveros, 2018; Malone and Dammert, 2020; Malone, 2010b).

Overall, the descriptive analysis confirms the robustness of our measure of crime victimization networks and its resonance with prevalent findings in the literature on the correlates of exposure to crime. The following section presents the results of our experimental design, emphasizing the effects for the friendship network on security policies' preferences and other relevant features of our conjoint design.

## 6 Results: Voting for Security in Mexico

We start by presenting the overall average marginal component effects (AMCE) of the conjoint experiment. Figure 1 presents the AMCE for all the components, and sets the reference groups to zero for each of the profile's features. The first relevant outcome is the strongest support in our sample for candidates with experience in human rights activism. In comparison to a public employee, human rights activists are about 10% more likely to be selected by the respondents. In contrast, leaders of *autodefensas* organizations were the least likely to be selected from all the profiles related to experience with public security. In comparison to the baseline, *autodefensas* leaders are about 5% less likely to be selected by the respondents.

The AMCE results by themselves provide no support for our expectation on the direct effects of candidate profiles on the voter decision. The occupation that more directly indicates that the candidate had previous experience with public security—the chief of local police—does not show a positive statistically significant effect, as we expected, and more conservative parties do not show a positive marginal component effect. Furthermore, against conventional wisdom, there is a weak support for iron fist policies in the general population. In particular, a candidate campaigning on police militarization is about 5% less likely to be preferred over another candidate promoting victim oriented policies. Our second tough-on-crime policy, death penalty, shows a weak and non-significant AMCE for the overall population. In contrast, our results show positive and significant values for the prevention policies in the experiment—i.e., youth education and police cameras. Together, these findings are at odds with the increased militarization of security forces in Mexico and Latin America.

**Figure 1** Conjoint Estimates: average marginal component effects of attriftasbutes on the selection of hypothetical candidates



Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% and 90% confidence intervals. The points without bars represent the reference category for each attribute.

#### **Conditional Effects of Crime Victimization**

Now, we discuss our hypotheses regarding the effects of crime victimization on selecting candidates proposing more punitive policies. We estimate models using a linear interaction between the public policy proposals' feature and our network measures for victimization. The numerical results for the models are presented in the Appendix B, and figure 12 presents the marginal effects for interaction terms.

Confirming our initial expectation, the results in the upper plot on Figure 2 suggest that higher exposure to victimization is positively correlated to support for death penalty. In other words, when respondents have more friends in their immediate network who were victims of crime (positive values), support for a candidate campaigning on more punitive policies increases. Although the militarization of police forces is also considered a punitive policy, we find an opposite relationship with victimization. Following Flores-Macías and Zarkin (2021), this result could be related to perceptions of increased effectiveness and respect for civil liberties by military personnel.

We see no robust change for the other security policy choices. In this sense, our results speak in the same direction of the findings in Gingerich and Scartascini (2018), suggesting that victimization and crime make punitive policies more attractive. However, it does not affect support for crime prevention policy approaches.

Given our theoretical argument, we expect that candidates from law enforcement and militarized agencies will receive greater support from respondents more afflicted by violence, due to their association to the implementation and support to tough-on-crime policies (Flores-Macías and Zarkin, 2021; Navajas et al., 2020; Trejo et al., 2018)<sup>24</sup>. To asses this hypothesis, the bottom

 $<sup>^{24}\</sup>mathrm{Although}$  this hypothesis is post-hoc to our pre-registration, we believe its logic follows straight from our theory



### Figure 2 Conjoint Estimates: average marginal interactive effects







Note: The plot shows marginal effects from linear interactive models between the residuals from the network models and the Security Policy feature. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

plot on Figure 2 presents interactive effects of crime victimization with the occupations' feature. We find that voters more exposed to violence on their friendship network increase substantively their support for the chief of police's candidate, while all the other AMCEs remain basically unchanged.

The statistical significance of the differences can be assessed by comparing the effects over the x-axis. For the death penalty and chief of police features, we observed a upward trend for the probability that the respondent would choose a candidate with these properties. To properly assess the statistical differences between these interactive effects, we present in Appendix C the AMCE differences when one moves from the first to the fifth quantile on the crime victimization moderator.

Moving from the first to the fifth quantile on crime victimization increases the likelihood to vote for a candidate proposing the adoption of the death penalty by 8.5% (*p-value* = 0.78), while the likelihood of supporting a former police chief increases in 9.5% (*p-value*=0.06). These results are robust to different choices of the quantiles, as the more transparent continuous model on Figure 2 already suggests. It is important to emphasize that our conjoint task had only two repetitions per respondent. Since conjoint designs are based on high number of possible profile combinations, the statistical difference of these subgroup analysis are worth noting.

### Conditional Effects of Partisanship and Candidates' Profiles

In Figure 3, we present the average component interactive effects between the features political party and security proposal. Our main goal here is to assess to which degree the supply of politicians interacts with voters' demands for security policies. From our theory, we expect candidates from more conservative parties and having a professional experience with law enforcement would receive greater support when associated with more punitive proposals.

We find no support for the hypotheses regarding the partisan advantage for conservative parties (PAN) or law and order officials (chief of police) when proposing more punitive measures. As Figure 3 shows, no party benefits from proposing police militarization. Also, MORENA and the PRI candidates—instead of those from PAN, the Mexican rightist party—benefit from campaigning death penalty. Experimental data fails to support our partisan hypothesis and a growing literature on issue ownership and crime (Holland, 2013; Beckett and Western, 2001; Kaplan et al., 2006).

For the case of occupation, we find mostly null effects between the occupations—when holding the proposals constant. The main finding, which runs in the opposite of our initial expectation, relates to a positive effect of a self-defense group when associated with death penalty. In other words, a vigilante leader is more likely to be chosen by our respondents when shown in the conjoint together with the adoption of death penalty as an security policy. A possible explanation is that members of a self-defense group can credibly propose death penalty, given their engagement in extralegal justice, including the killing of criminals.<sup>25</sup>

In the supplemental files, we present several additional analysis. First, we consider the interactive effects with the network measure of exposure to police violence. Results are similar to those presented in the paper, with more victimized respondents growing greater taste for punitive policies. In addition, following previous studies (Rueda and Stegmueller, 2015; Gingerich and Scartascini, 2018; Gingerich and Oliveros, 2018), we also assess the interactive effect with fear of crime. As in the other models, we find an substantive increase for the death penalty proposal.

Finally, we examine interactive effects driven by personal direct victimization. The differences are not statistically significant for support to iron-fist policies or the chief of police, as we found

<sup>&</sup>lt;sup>25</sup>BBC News. "Mexico vigilantes in deadly shoot-out in Michoacán." *BBC News.* December 17, 2014. (https://www.bbc.com/news/world-latin-america-30512544)

Figure 3 Conjoint Estimates: Average Interactive Component Effects by Parties and Occupation with Security Proposal



Note: The plot shows the average component interactive effects between the features political party and security proposal. We present marginal component effects with 95% confidence intervals. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% and 90% confidence intervals.

when using contextual exposure. This difference is important to highlight, and converges with recent arguments by Moncada (2020) about the importance of theorizing victimization as a repeated and interactive process, and not as a one-shot event.

To summarize, we find evidence that respondents more exposed to crime victimization significantly increases the support for iron-fist policies, such as the death penalty, confirming our hypothesis 1. In addition, as an extension of hypotheses 1 and 4, we find that higher exposure to crime also increases the support for candidates previously employed in the local police forces. In this sense, exposure to violence within the respondents' network does not only have a policy effect, but also shapes which candidates become more attractive among voters. Finally, our other hypotheses about direct partian and occupational advantages were not confirmed.

## 7 Conclusion

This paper explores the electoral supply and demand factors for punitive security policies. We argue that the implementation of such policies depends on voters' personal experiences with violence and candidates' platforms on public security, whose credibility depends on their relevant experience. We have drawn insights from the literature on experimental public opinion and social networks to mitigate concerns on social desirability, limited generalization, and under-reporting bias. Using original survey data from Mexico, we provided robust evidence showing that the demand for punitive policies in the country is largely conditional on citizens' victimization experience. Despite voters' limitation in assessing security policy proposals, our findings indicate different ways through which policy approaches and candidate profiles are perceived, pointing to the need of capturing this interaction between voters and candidates.

To assess the effects of victimization, we propose a novel friendship network approach that

addresses previous measurement challenges to estimate citizens' exposure to victimization, our findings confirm previous findings on the relationship between crime victimization and support for punitive policies. Victimization seems to be the main driving factor through which voters express higher support for the death penalty as a policy proposal. This is an important result because it lends robustness to the observational evidence provided in the existent literature.

Contrary to our expectations, we find that the demand for punitive policies is inelastic with respect to the party that offers and that such policies do not give a premium to candidates with professional experience in public security. The lack of empirical support for our partisan hypotheses is likely to respond to the undergoing recomposition of the Mexican party. The former major parties fell victims to their internal conflicts and the lack of solutions against the low economic growth, crime, and rampant corruption in the country (Greene and Sánchez-Talanquer, 2018; Prud'homme, 2020). As a response, López Obrador and his recently formed MORENA ran a personalistic campaign based on valence issues that appeal to a heterogeneous electorate whose support is far from stable (Aguilar, 2019).<sup>26</sup> At the same time, parties have converged to offer very similar public security policies, while President López Obrador contrasting less punitive strategy against crime during his campaign (see section 4) radically shift once in office with the creation of a new security force operated by the military.<sup>27</sup> Therefore, respondents at the time of the survey could be unsure about the platform each party proposed. It will most likely take a few more elections to see the results of the party system reconfiguration.

Despite the negative findings for our partisan hypotheses, our evidence nonetheless shows that voters are not necessarily blinded by iron-fist policies and can distinguish between credible

<sup>&</sup>lt;sup>26</sup>Among those who identify with MORENA, two-thirds of them feel closer to López Obrador than to the party. Moreno, Alejandro. "De minorías y megáfonos. *El Financiero*. February 26, 2021. https://www.elfinanciero. com.mx/opinion/alejandro-moreno/de-minorias-y-megafonos

<sup>&</sup>lt;sup>27</sup>Gaytan, Victoria. "The many of AMLO's messages first address to the nation." Global Americans. December 7, 2018. (https://theglobalamericans.org/2018/12/ the-many-messages-of-amlos-first-address-to-the-nation/).

and non-credible proposals. Candidates who have a human rights background or experience in private security are electorally benefited when proposing crime prevention policies. In contrast, we do not find consistent evidence on the relevance of candidates' past public security experience and conservative profiles to boost their electoral support. The lack of evidence for the electoral support on police militarization in Mexico is something worth noting and at odds with both previous research and the overwhelming rates of approval that this policy has in the country.<sup>28</sup> Our results may suggest that the high support for this policy does not reflect citizens' direct support towards this policy but rather an endorsement to the incumbent party that proposed it.

This study provides important implications to the literature about preferences for iron-fist policies. The existing studies have mainly focused on the demand for such policies and the amplifying effect of victimization. The findings here suggest that, despite the raising support for punitive policies, voters are still more likely to support more preventive security policies. These patterns of electoral behavior can determine the proposals made by candidates and the future policies against crime in the region.

<sup>&</sup>lt;sup>28</sup>In early 2019, 80% of the population agreed with the new military force, and 68% of them preferred the army over the police to combat insecurity. Moreno, Alejandro. "El 80% aprueba militarizar el combate contra la inseguridad" *El Financiero*. February 18, 2019. (https://www.elfinanciero.com.mx/nacional/el-80-aprueba-militarizar-el-combate-contra-la-inseguridad)

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## Voting for Violence

Supporting Information Files (SIF)

## Appendix A: Descriptive Results for Victimization using a Network Approach

In this section, we provide descriptive results from our network model. At first, we examine the correlation between the groups k in the population using information from the network model. This quantity examines the correlation between the individual level residuals, according to equation 2 in the main paper, and compares whether individuals who know more victims of criminal violence, on average, also know more people who are in prison, suffered from police violence, or lost their jobs due to the COVID-19 pandemic in Mexico, etc...

The dendrogram presents the clustering algorithms in which more similar groups/units are plotted together. A simple visual inspection from the dendrogram provides empirical evidence from several intuitions about the characteristics of personal networks in Mexico.

Second, we explore further the results from our network model of crime victimization. We provide a set of OLS regression models using the residual for crime victimization in the subjects' network as dependent variables, and a set of relevant covariates from our survey as explanatory factor. Then, our models compare the results with the traditional measure of self-reported survey victimization. Although we do not explore results for police victimization in the paper, we also present the network information and its correlates for this quantity in the table. Results provide some interesting insights about the dynamics of victimization in Mexico that we brieffy discuss here.

As a refresh, the residuals are extracted directly from the predictions of the multilevel models estimated using the network questions from our survey. Their interpretation are fairly straightforward; a higher/lower residual indicates that some surveys respondents know more/less people Figure 4 Dendogram describing the Structure of the Network of Friends in Mexico



#### **Cluster Dendrogram**

hclust (\*, "average")

who is a member of a particular group - in our case, who suffered from crime and police violence in the last year. These estimate parse out two crucial information from the respondents' network: the size of the respondent personal network and the size of the group k in the overall Mexican population. In other words, the residuals tell us which respondents have more friends on a particular group considering how many people she knows overall and how many people there is to be known in this group. Using the residuals in a regression model, therefore, provide critical information on the social and political determinants of - in our application - crime and police victimization in Mexico. The table 2 presents the results:

Models 1 and 3 present results using the network's residuals as dependent variables, while models 2 and 4 present the same models but using direct survey questions about victimization

		Depe	ndent variable:	
	Crime Victimization	Crime Victimization	Police Violence	Police Violence
	(Network Residuals)	(Survey Questions)	(Network Residuals)	(Survey Questions)
Intercept	-0.381*	0.819***	-0.386*	1.170***
	(0.228)	(0.100)	(0.223)	(0.072)
Income (Middle)	$-0.135^{**}$	0.023	-0.033	-0.021
× ,	(0.059)	(0.026)	(0.059)	(0.019)
Income (Top Quartile)	$-0.155^{**}$	0.004	-0.005	0.010
	(0.070)	(0.031)	(0.069)	(0.022)
Employed	$0.114^{**}$	0.013	0.119**	0.005
	(0.049)	(0.022)	(0.049)	(0.016)
Age	-0.009	$-0.025^{***}$	-0.023	$-0.019^{***}$
	(0.016)	(0.007)	(0.016)	(0.005)
Education	0.013	-0.007	-0.002	-0.006
	(0.026)	(0.011)	(0.026)	(0.008)
Female	0.083	$-0.047^{**}$	-0.077	$-0.083^{***}$
	(0.051)	(0.022)	(0.050)	(0.016)
Crime Victim	0.372***		0.044	0.140***
	(0.055)		(0.054)	(0.018)
Police Violence Victim	0.064	0.273***	0.680***	
	(0.077)	(0.034)	(0.072)	
Punitive Preferences	$0.025^{**}$	$0.010^{**}$	0.012	0.003
	(0.010)	(0.004)	(0.010)	(0.003)
Fear of Crime	0.158***	$0.150^{***}$	$0.148^{***}$	$0.034^{**}$
	(0.045)	(0.019)	(0.043)	(0.014)
Trust in the Police	-0.012	0.006	$-0.040^{***}$	$-0.015^{***}$
	(0.010)	(0.004)	(0.009)	(0.003)
Security Top Priority	$-0.028^{***}$	0.001	0.005	-0.003
	(0.011)	(0.005)	(0.011)	(0.003)
Observations	1,434	1,598	1,257	1,598
Adjusted R <sup>2</sup>	0.073	0.092	0.125	0.092

## ${\bf Table \ 2} \ {\rm Regression \ Estimates: \ Correlates \ of \ Contextual \ and \ Individual \ Victimization}$

Note:

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

and police violence. We discuss in the paper the main findings from this table.

# Appendix B: Conjoint Interactive Effects with Crime Victimization and Police Violence (Network Models)

Other than the four hypothesis presented and discussed in the main paper, our pre-registration also presented an hypothesis related to the behavioral effects of police violence. In an effort to unpack different processes of victimization, we argued that experiences with violence committed by police forces, however, are likely to have the opposite effect of criminal violence. Because, as comparative evidence shows, from the United States (Desmond et al., 2016) to Brazil (Caldeira, 2002), police violence tends to generate distrust in police forces, we expected that such change would result also on lower support for punitive policies. Our pre-registered hypothesis then:

**Hypothesis 5.** Respondents that have faced police violence—either personally or in their immediate social network—are less likely to support punitive policies.

In this appendix, we present the numerical results from figure 12, including the interactive effects of police violence. We then replicate figure 12 considering exposure to police violence on the respondents' network.

Contrary to our expectations, we find no support for Hypothesis 2. Being more exposed to police violence does not decrease support for *mano dura* policies; quite the opposite, respondents with more friends than expected who suffered from police violence also exhibit a higher support for the adoption of the death penalty. As the bottom left plot of Figure 2b shows, the marginal effect for the support of death penalty increases with the overdispersion of police violence in the respondent's network.

As our network model shows – see figure – the correlation between crime and police victimization is substantive. Therefore, our results indicate that this overlap likely makes voters to become more punitive even though some of them suffer from violence directly from the police, and probably as a consequence of the adoption of harsh-on-crime policies.

Our decision not to include these results in the main paper is motivated by two main reasons. First, space limitations on the paper. Second, we expect to work on a second project more focused on police violence in Mexico and Brazil in which we can fully develop an theoretical explanation for our findings.

	Crime Victimization	Police Victimization
Intercept	0.586***	0.590***
•	(0.020)	(0.021)
PRI	-0.158***	-0.160***
	(0.016)	(0.017)
MORENA	-0.091***	-0.076***
	(0.016)	(0.017)
PAN	-0.088***	-0.092***
	(0.016)	(0.017)
Male	-0.070***	-0.059***
	(0.011)	(0.012)
Network Residuals (NR)	-0.006	-0.007
	(0.013)	(0.015)
Education to Youth	$0.074^{***}$	$0.064^{***}$
	(0.018)	(0.019)
Better Police/Security Cameras	$0.115^{***}$	$0.094^{***}$
	(0.018)	(0.020)
Death Penalty	0.009	0.020
	(0.019)	(0.020)
Police Militarization	-0.053***	-0.065***
	(0.019)	(0.020)
Leader Autodefensas	-0.051***	-0.051***
	(0.017)	(0.019)
Chief Local Police	-0.022	-0.041**
	(0.018)	(0.019)
Human-Rights Activist	$0.106^{***}$	$0.102^{***}$
	(0.017)	(0.019)
NR x Education to Youth	0.017	0.002
	(0.021)	(0.023)
NR x Better Police/Security Cameras	-0.011	-0.018
	(0.020)	(0.023)
NR x Death Penalty	0.037*	0.042*
	(0.021)	(0.024)
NR x Police Militarization	-0.021	0.011
	(0.020)	(0.024)
Num.Obs.	7876	6820
R2	0.045	0.042
R2 Adj.	0.043	0.039
se_type	CR2	CR2

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

All the models use benchmark OLS model with clustered standard errors by respondents. The dependent variables comes from the candidate choice conjoint task, and the moderator in each column are the residuals from the network models.

	Crime Victimization	Police Victimization
Intercept	$0.586^{***}$	0.590***
	(0.020)	(0.021)
PRI	-0.156***	-0.160***
	(0.016)	(0.017)
MORENA	-0.090***	-0.076***
	(0.016)	(0.017)
PAN	-0.087***	-0.092***
	(0.016)	(0.017)
Male	-0.069***	-0.059***
	(0.011)	(0.012)
Network Residuals (NR)	-0.015	0.006
	(0.013)	(0.015)
Education to Youth	$0.078^{***}$	$0.064^{***}$
	(0.018)	(0.019)
Better Police/Security Cameras	$0.113^{***}$	$0.093^{***}$
	(0.018)	(0.020)
Death Penalty	0.019	0.022
	(0.018)	(0.020)
Police Militarization	-0.057***	-0.065***
	(0.018)	(0.020)
Leader Autodefensas	-0.050***	-0.051***
	(0.018)	(0.019)
Chief Local Police	-0.029	-0.041**
	(0.018)	(0.019)
Human-Rights Activist	$0.101^{***}$	$0.102^{***}$
	(0.018)	(0.019)
NR x Leader Autodefensas	-0.005	-0.002
	(0.020)	(0.023)
NR x Chief Local Police	0.031	0.002
	(0.020)	(0.022)
NR x Human-Rights Activist	0.020	-0.008
	(0.019)	(0.022)
Num.Obs.	7876	6820
R2	0.044	0.041
R2 Adj.	0.042	0.039
se_type	CR2	CR2

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

All the models use benchmark OLS model with clustered standard errors by respondents. The dependent variables comes from the candidate choice conjoint task, and the moderators in each column are the residuals from the network models.

Figure 5 Conjoint Estimates: Average Marginal Interactive Effects for Police Violence





Note: The plot shows marginal effects from linear interactive models between the residuals from the network models and the Security Policy feature. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

## Appendix C: Conjoint Interactive Effects: Difference in the Quantiles

## Figure 6 Conjoint Estimates: average marginal interactive effects by quantiles



## a) Security Policy X Crime Victimization

Note: The plot shows marginal effects from linear interactive models between the residuals from the network models and the Security Policy feature. To assess statistical differences, we separate the crime data in five quantiles, and compare the differences between the first and last group. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.



#### Figure 7 Conjoint Estimates: average marginal interactive effects by quantiles



Note: The plot shows marginal effects from linear interactive models between the residuals from the network models and the Security Policy feature. To assess statistical differences, we separate the crime data in five quantiles, and compare the differences between the first and last group. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

## Appendix D: Partisanship and Conjoint Results

In this appendix, we present results focused on the effects of partial partial

the candidates' choice task.

We use both positive and negative partial partial partial to measure the effects of partial identities on the subjects' decision in the conjoint experiment.

Results are consistent with expectations about partian identities explaining vote choices. Both positive and negative feeling towards the PAN, PRI and MORENA explain voters' decision to support their more favorite and less favorite candidate. The effects stronger for Morena voters among our three options.

Figure 8 Conjoint Estimates: Conditional Effects by Positive and Negative Partisanship



### a) Positive Partisanship

b) Negative Partisanship

Note: The plot shows marginal component effects using subgroups of respondents according to their positive and negative feelings towards the three parties in our conjoint. We present marginal component effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

 $<sup>^{29}</sup>$ We define negative partisanship as voters who expressed negative feelings towards party A, and no positive feelings towards any other party. See (Samuels and Zucco, 2018) for a complete discussion about the operationalization of negative partisanship using survey data

# Appendix C: Conjoint Results with Direct Victimization Questions

In this section, we present results for the interactive effects of crime victimization and police violence with the policy proposals.

### Figure 9 Conjoint Estimates: Average Marginal Interactive effects



a) Security Proposal X Crime Victimization



Marginal Component Interactive Effects



Note: The plot shows marginal effects from linear interactive models between the residuals from the network models and the Security Policy feature. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

## Appendix D: Additional Heterogeneous Effects

In this section, we report results for Interactive Effects (using both the AMCE and the Marginal Component Effects) on some additional covariates collected in our survey. We report results for the following covariates:

- Gender: Male and Female.
- Subjective Income <sup>30</sup>
- Trust in the Police.
- Fear of Crime.
- Overt Support for Punitive Policies
- Crime Victimization: Direct Survey Question
- Police Victimization: Direct Survey Question

 $<sup>^{30}</sup>$ Imagine a staircase with 10 steps. In the first step, people with lower income are located, and in step 10, people with higher income are located. Where would you be located



Figure 10 Conjoint Estimates: Average Component Interactive Effect by Gender)

Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% confidence intervals. The points without bars represent the reference category for each attribute. The estimates are from sub-samples according to the gender variable from the survey.

### Figure 11 Conjoint Estimates: Average Marginal Interactive Effects for Subjective Income



a) Marginal Effects: Income x Policy Proposal





Note: The plot shows marginal effects from linear interactive models between the survey question about subjective income and the conjoint tasks. The questions asks where respondents would place themselves on a stair from 0-10, where 0 are for lower income people and 10 for wealthier classes. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

Figure 12 Conjoint Estimates: Average Marginal Interactive Effects for Trust in the Police



a) Marginal Effects: Trust in the Police x Policy Proposal



**Marginal Component Interactive Effects** 

a) Marginal Effects: Trust in the Police x Occupation

Note: The plot shows marginal effects from linear interactive models between the survey question measuring trust in the police and the conjoint tasks. The responses vary from not safe to very safe. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

### Figure 13 Conjoint Estimates: Average Marginal Interactive Effects for Fear of Crime



### a) Marginal Effects: Fear of Crime x Policy Proposal



## a) Marginal Effects: Fear of Crime x Occupation

Note: The plot shows marginal effects from linear interactive models between the aggregated measure of fear crime extracted from the survey questions and the conjoint tasks. The questions ask respondents about their fear of walking alone on a street, driving at night, and staying alone at home. The responses vary from not safe to very safe. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.

Figure 14 Conjoint Estimates: Average Marginal Interactive Effects for Punitive Preferences



a) Marginal Effects: Punitive Preferences x Policy Proposal



a) Marginal Effects: Punitive Preferences x Occupation

Note: The plot shows marginal effects from linear interactive models between the a aggregated scale from five questions measuring support for punitive penal policies extracted from the survey and the conjoint tasks. We present marginal effects with 95% confidence intervals calculated from benchmark OLS model with clustered standard errors by respondents.



Figure 15 Conjoint Estimates: Average Component Interactive Effect (Crime Victimization)

Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% confidence intervals. The points without bars represent the reference category for each attribute. The estimates are from sub-samples according to the variable crime victimization



Figure 16 Conjoint Estimates: Average Component Interactive Effect (Police Victimization)

Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% confidence intervals. The points without bars represent the reference category for each attribute. The estimates are from sub-samples according to the variable police victimization

## Appendix E: Robustness Checks

As suggested by Hainmueller et al. (2014), we conduct two distinct robustness checks for our conjoint design. We first investigate validity of the assumption of no carryover effects. This assumption assumes effects are stable across the choice tasks and that treatments on one task has no effect in the following ones. To test for no carryover effects, we examine the Average Marginal Component Effects across the two different repetition of our conjoint. Therefore,

our results show no evidence of carryover effects between the two tasks. To conduct a proper statistical test, we use an F-test for the joint significance of the interaction terms between the conjoint features and the task number. Here, we find that we cannot reject the null that the interactive effects are equal to zero (p-value = 0.60)

Figure 17 Examining the no carryover effects' assumption.



Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% confidence intervals. The points without bars represent the reference category for each attribute.

We also replicate the same type of validation but to detect the presence of profile order effects. A key assumption on conjoint designs is that the order in which the profiles are presented do not affect the respondents' decision. In other words, this assumption states that the likelihood of supporting a candidate does not change if one sees this profile in the first or in the second position in each task. Figure 18 presents the interactive effects between the features and the profile order. As before, we use a F-test to evaluate the joint significance. We find no evidence of profile order effects, and the F-test cannot reject the null that the interactive effects are equal to zero (p-value =0.37)



Figure 18 Examining the no profile order effects' assumption.

Note: The plot shows estimates of the randomly assigned attributes (Party, Gender, Occupation and Security Policy Proposal) in the subject decision to vote for a hypothetical mayoral candidate. Estimates are based on the benchmark OLS model with clustered standard errors by respondents; we present point estimate with 95% confidence intervals. The points without bars represent the reference category for each attribute.