Pre-Analysis Plan

The Construction of Trust in the State: Evidence from Police-Community Relations in Colombia

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Abstract

We outline and pre-specify our analysis for research products from a field experiment on community policing in Medellín, Colombia. The experiment consists of two interventions, crossed in a $2 \times 2$ factorial design: the creation of beat-level community policing meetings and the dissemination of security-related information (on norms, procedures, and outcomes). We first propose a paper on the evolution of trust in the police. Second, we propose a paper on gender and demand for better policing. Finally, we will contribute to the Metaketa-IV analyses and joint product with a discussion of how the efficacy of these interventions can be compared, given the evidence. All products draw on data collected from: baseline and endline surveys of citizens; endline surveys of community police; intervention implementation records; administrative data on crime and population; ethnographic observation of community policing meetings; and qualitative focus groups and interviews.

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1 Introduction

Trust in government is the subject of “an industry of research” (Levi and Stoker, 2000) in political science, sociology, and economics. Since at least the 1960s, researchers have worked to define trust in government, to develop survey instruments that measure it, to pin down its determinants, and to understand its consequences, which include political and economic behaviors as fundamental as voting, obeying the law, or even buying goods.

This large literature has produced robust findings. But most studies focus on trust in an abstract government or in national institutions like Congress; less is known about the causes or consequences of trust in specific, local government agents. Levi and Stoker (2000) argue that this type of trust—trust in particular authorities—is essential to understanding “everyday political behavior,” and they therefore “urge scholars to expand their inquiries beyond the traditional focus on citizens’ trust in ‘government’ in general” (p. 495–496).

This study investigates the determinants and consequences of citizen trust in a specific, local government institution that performs an elemental function of the state: the police. Criminologists have used survey data to enumerate the correlates of trust in various police forces (e.g., Tyler, 2005; Sunshine and Tyler, 2003), but empirical political scientists, sociologists, and economists have largely ignored the subject—despite the fact that theorists in all three fields emphasize its importance to successful law enforcement.  

Policymakers have not waited for social science. Governments around the world have implemented policies aimed at improving trust in the police. A 2008 police reform in England, for example, eliminated all nationally mandated performance targets for local police forces except targets for improving public confidence, as measured by the British Crime Survey (Home Office, 2008, p. 84).

We use a large-scale field experiment in Medellín, Colombia, to study the effects of two initiatives on citizen trust in the police (as reported in surveys), cooperation with law enforcement (as measured in administrative records), and officer perceptions of citizens (as reported in surveys of officers).

The first initiative is to facilitate interaction among police officers and citizens by holding town-hall-style police-community meetings. Other governments have implemented similar programs; in Chicago, for example, police hold regular beat meetings, which “provide an opportunity for police and residents to get acquainted, and to build mutual respect and trust” (Skogan, 2006).

The second initiative is to provide information about police responsibilities, security outcomes, and social norms about reporting. Many governments have invested in information campaigns aimed at improving opinions of the police, and a handful of experimental studies suggest that these campaigns can work (e.g., Wunsch and Hohl, 2009; Ardanaz, Corbacho, and Ruiz-Vega, 2014). This pre-analysis plan describes our theoretical framework and hypotheses (Section 4), experimental design (Section 2), data (Section 5), and hypothesis tests (Section 6).

1For example, Akerlof and Yellen (1994) emphasize that “the major deterrent to crime is not an active police presence but rather presence of knowledgeable civilians, prepared to report crimes and cooperate in police investigations” (p. 2). See also Acemoglu and Jackson (2017).
2 Experimental Design

2.1 Treatments

Our intervention comprises two treatments: a police-community meetings treatment and an information treatment.

In the police-community meetings treatment, police officers will hold town-hall-style meetings with residents of their respective police-beats (cuadrantes). The meetings will take place approximately bi-monthly over a period of six to eight months, so that residents of each treated cuadrantes are invited to three meetings. The overall intervention will take place between July 2018 and May/June 2019, with some police stations starting and finishing meetings at different points in time. The research team will invite residents to the meetings via printed flyers distributed door-to-door at residents’ homes. The protocol for invitation delivery includes a pair of enumerators for each cuadrante, who begin in one random extreme of the micro-neighborhood and work their way around it. (If there are fewer than 350 households within the micro-neighborhood, the enumerator team proceeds toward adjacents blocks as long as they are within the cuadrante.)

The invitations, pictured in Figure 1, introduce our implementing partner, Estrategia & Territorio.
These meetings differ from police-community dialogues previously held in Medellín. Past police-community meetings generally involved high-ranking officers (such as station chiefs) and were organized at the level of large geographic units called comunas. In contrast, the meetings associated with the intervention involve beat officers and are organized at the level of small neighborhoods; this local focus is designed to facilitate relationships among citizens and the agents with whom they would otherwise interact (that is, the police officers whom they would be likely to encounter outside of the intervention).

Each meeting will begin with a presentation from the police officers, about who they are, how the cuadrantes operates, as well as with a description of recent activities and plans. After that, there is an open discussion of local problems. Officers and residents will then develop a Cooperation Agreement, in which both officers and residents agree to take specific, concrete actions toward addressing problems in the neighborhood. Subsequent meetings will then begin with a review of the previous meeting’s Cooperation Agreement, with the goal of providing a sense of mutual accountability. A team of about 25 local research assistants will assist beat officers in moderating the meetings. And to facilitate ongoing communication, participants will be invited to participate in WhatsApp groups with their neighbors. The full meeting protocol, devised in partnership with the City Government and the police, appears in Appendix A.5.

In the information treatment, the research team will distribute information about the police and security, broadly defined. We will deliver 3 different information-flyers twice to each treated cuadrante (all occurring in the later half of the implementation, i.e., 2019). The flyers topic are related to (a) resources for victims of domestic violence as well as resources for reporting; (b) Colombia’s new Police Code, which empowers officers to issue fines for behaviors such loud noises, as well as resources for reporting; and (c) comuna-level crime trends.

The information treatment is motivated both by literature documenting (often) inaccurate perceptions of crime rates and of state security institutions (e.g. Ardanaz, Corbacho, and Ruiz-Vega, 2014), and by our own qualitative fieldwork in Medellín, which highlighted minimal familiarity with police responsibilities and achievements. In this regard, the Police Code flyer (Figure 2) emphasizes some of these non-known responsibilities in the context of one of the most recurrent issues in communities, namely complaints about noise. In the same spirit, Figure 3 presents a comparison of homicide-rates in the 2009-2013 period vis-à-vis the 2014-2018 period. We choose those periods as they’re informative about the trend, but yet shorter than in previous experiments (c.f. with 10 years in Ardanaz, Corbacho, and Ruiz-Vega, 2014) so to increase salience. We also decided to keep the information simple and not engage in cross-comuna comparison as evidence points to null additional effects (Arias et al., 2019).

Finally, we use a social-norms marketing approach for the information about the importance of crime reporting, emphasizing that domestic violence is not a private matter (see Figure 4).

2.2 Unit of assignment to treatment

The unit of randomization is the cuadrante (police beat). The total number of cuadrantes in Medellín (at the time of the design) is 413. We exclude from our sample 66 cuadrantes that are either (a) located in remote areas of the city or (b) non-residential (e.g., the local airport). Figure 5 illustrates the police beats included in and excluded from our sample.
... NO LO CONFRONTE.
Comuníquese al número de su cuadrante

312 721-9870,
o a la línea general, 123,
y reporta el incidente.

CON EL NUEVO CÓDIGO DE POLICÍA,
la policía está
autorizada a desactivar la fuente del ruido,
si su vecino no lo hace,
y multar al dueño

Bajo el código anterior, el único recurso de la policía era llevarle
a su vecino a una audiencia pública. Conoce cómo te ayuda el
nuevo Código de policía,
un conjunto de normas que orienta el comportamiento humano
y establece las medidas de policía que se pueden aplicar.

#Códi godepolicía #paravivirenpaz

Figure 2: Tri-fold flyer for with security related information about the Código de Policía and reporting

Within each of the remaining 347 police beats, we define a *micro-neighborhood* (or ‘prioritized manzanas’) as the set of inhabited, contiguous city blocks closest to the centroid of the police beat. Each micro-neighborhood comprises about four blocks, depending on the residential density, so as to ensure similar populations across micro-neighborhoods. When the centroid of the police beat falls in (for example) a park, we begin the micro-neighborhood at the inhabited block closest to the centroid. Cuadrantes have an average of 5,348 residents (in the 2005 census), our micro-neighborhoods contain approximately 1,200 residents, or about 400 households. Figure 6 illustrates the location of micro-neighborhoods located within a sample of police beats. It is within these micro-neighborhoods that we deliver invitations (informational flyers) to 350 households.

**There is thus one micro-neighborhood per police beat; we assign each beat to one of four conditions:** control, *meetings only* \((T_m)\), *information only* \((T_f)\), or *meetings and information* \(((T_m) \text{ and } (T_f))\).

**To assign police beats (and thereby micro-neighborhoods) to treatment conditions, we block-randomize.** Each block contains four police beats that (a) belong to the same police station (of
¿HA MEJORADO LA SEGURIDAD EN SU COMUNA?

Sí. ENTRE 2009 Y 2013,
HUBO 46 HOMICIDOS
POR 100,000 PERSONAS EN BELEN:

PERO ENTRE 2014 Y 2018,
HUBO 19 HOMICIDOS
POR 100,000 PERSONAS EN BELEN:

LA TASA DE HOMICIDIOS BAJÓ EN 58%.

Seguridad Pacífica
#juntosvamosseguros
@policiamedellin

Según cifras del Sistema de Información para la Seguridad y Convivencia (SISC) de Medellín, entre 2009 y 2013, hubo 46 homicidios por 100,000 personas en Belén. Pero entre 2014 y 2018, hubo 19 homicidios por 100,000 personas en Belén. La tasa de homicidios bajó en 58%.

Figure 3: Tri-fold flyer for with security related information about homicide trends

which we coded 14)\(^2\) and (b) have the same treatment status (treated or control) in a simultaneous intervention conducted by other researchers. (In other words, we cross-randomize with another trial taking place in Medellín). Within each block, we randomly assign one police beat to each of the four treatment conditions (see Table 1).\(^3\) This simple blocking strategy is sufficient to produce balance on all observable demographic, socioeconomic, and crime characteristics, as shown in Appendix Table A2.

3 Preliminary Statement of Research Outputs

We propose three central quantitative research outputs based on the data collected here: two papers and a contribution to the Metaketa IV joint output, provisionally a chapter in an edited volume. Our provisional plan for the outputs is as follows:

1. **On Building Trust**: We posit a theory about trust in the state, conceiving of trust as a two-way

\(^2\)Aranjuez, Belén, Buenos Aires, Candelaria, Castilla, Doce de Octubre, Laureles, Manrique, Poblado, Popular, San Antonio de Prado, San Javier, Santa Cruz, and Villa Hermosa. However, some of the stations are relatively small, and thus we grouped 6 of these into 3, for a total of 11 police station groups. We grouped Aranjuez with Manrique, Buenos Aires with Villa Hermosa, and Popular with Santa Cruz.

\(^3\)There is one block of three police beats, each of which we assign to one of the four conditions with equal probability.
ES UN DELITO que afecta a mujeres, hombres, y niños.

Podemos PREVENIMOS juntos. Podemos EVITARLO.

Líneas de atención 155 y 123Mujer son completamen GRATUITAS, las 24 horas: comparte tu voz de lo que pasa. HAY ORIENTACIÓN Y APOYO!

Figure 4: Tri-fold flyer for with security related information and social marketing message about domestic violence

| ¬ Leaflets | Leaflets |
| ¬T_f | T_f |
| ¬ Community Meetings | Community Meetings |
| ¬T_m (Control, Z_\emptyset) \[N = 87\] | Z_f \[N = 87\] |
| Community Meetings | T_m \[N = 87\] | Z_{mf} \[N = 86\] |

Table 1: Treatment conditions

relationship that requires understanding both citizen beliefs about the state (or agents thereof) in addition to state agents’ beliefs about citizens. We use two programs, community policing and an information campaign, to measure how each type of actor updates their beliefs about the other. We measure outcomes using survey data, participation logs, and administrative data on the reporting of crime.

2. **On Demand for Better Policing**: Stronger police-community relationships rely, in part, on citizens’ propensity to engage with the police. The structure of our community policing program ensures that a random sample of residents of the manzana of each cuadrante were
invited to meetings. We study who attends these meetings, benchmarking attendance to new (2018) census data. In particular, we examine the empirical basis for a common observation: most attendees are women. We first establish this pattern empirically. Then we use a multi-method approach to understand differences in demand for engagement with police, drawing upon administrative census data, pre-treatment crime reports, survey data, focus group data, and ethnographic notes from each of 522 community policing meetings.

3. **On the Comparison of Policies to Improve Security** (book chapter): This chapter contains the tests of the meta-analysis outcomes from the Colombia project. We then consider the merits of comparing the estimated effects of the two treatments: community policing and flier campaign. Evidence-based policy-making is premised basing policy choice on available evidence. Yet this requires comparison of different options. Yet, comparisons are less than straightforward even with a design as primed for comparison as our $2 \times 2$ factorial. We examine empirically the pitfalls of “horse-racing” policies for which we have evidence.

### 4 Theory and Arguments

#### 4.1 Theoretical Framework: On Building Trust

We seek to understand the dynamics of trust between citizens and police (agents of the state) within the context of community policing. Summarizing a wide literature, Levi and Stoker (2000) argue that trust is “relational [between an] individual . . . [and] another individual, group, or insti-
We conceptualize trust as a two-way relation. While the study of citizen trust in government has generated a large research agenda over several decades, we rarely study government trust in citizens. There are obvious reasons for this omission. The literature’s focus on “trust in government” in general or abstract terms renders the two-way nature of trust difficult to define: what would it mean for “the government” to trust a citizen? Our focus on agents of a specific institution (here, the police) clarifies how specific agents of the state (here, street-level officers) can trust or distrust citizens in the same way that citizens trust or distrust police.

In this project, we seek to measure trust of citizens in police and police in citizens and understand how trust evolves. Our concept of trust between citizens and police builds on the Bhattacharya, Devinney, and Pillutla (1998) definition of trust as “an expectancy of positive (or non-negative) outcomes that one can received based on the expected action of another party in an interaction characterized by uncertainty” (p. 462). This definition subsumes and generalizes Levi and Stoker (2000) summary. This definition points to two features of our theoretical framework. Trust is defined in the context of an interaction between at least two actors. Here we consider a citizen and a police officer (or groups thereof). The citizen and police officer face uncertainty about the other actor’s type. The police officer holds prior beliefs about citizens’ propensity to collaborate; the citizen holds prior beliefs about the police officer’s work ethic.

These beliefs condition each player’s actions. Specifically, citizens choose how much information to relay to police and police decide how much effort to invest in policing the beat. The outcome level of security is a thus function of the level of information provision and effort ex-
pended in policing. With this simple framework, we seek to describe baseline beliefs (priors) and “equilibrium” actions.

Given the emphasis on uncertainty as a definitional component of trust, we focus on understanding the origins of beliefs and how they change. In principle, changes in either player’s beliefs may change equilibrium actions, thus impacting security. As such, we examine the efficacy of two interventions aimed to perturb this “equilibrium” by inducing players to update beliefs in ways they would not in the absence of these intervention. By measuring this updating process, we seek to understand (a) how beliefs change; and (b) how such updating influences behavior. This analysis provides insights into how trust evolves.

We begin by examining prior beliefs held by citizens about police and police about citizens. While the theory of how actors update is, in principle, agnostic about the origins of these priors, we seek to understand these priors descriptively. Foreshadowing, we consider two manifestations of prior beliefs. First, we will examine self-reported attitudinal measures of citizen beliefs toward police. Second, we treat attendance in the first community meeting by both citizens and police as a behavioral measure of prior beliefs of both citizen and the police. In particular, we hypothesize that citizen priors may come from (a) personal experiences with crime or policing or (b) neighborhood-level crime risk indicators. Police priors may emerge from (a) interactions with local citizens or (b) patrolling neighborhood-level risk.

Two different interventions allow us to examine updating of beliefs of both police and citizens. A series of three community policing meetings ($T_m$) allow for exchange between citizens and police. They allow citizens to gauge police responsiveness to their concerns and citizens learn about the efforts and responsibilities of the local (beat-level) police officers. A second security information treatment ($T_f$) is a leaflet campaign that provides citizens information about the responsibilities of the police and security outcomes. We anticipate that this will enable citizens to update their beliefs but should not influence the beliefs of police. We denote the structure of the theoretical framework and the interventions in a schematic in Figure 7 for clarity.

As is standard, we assume that both actors update in a Bayesian manner. This structures the hypotheses that we take to the data. Preliminary descriptive analysis of baseline citizen survey data indicates that citizen priors over police quality vary substantially. Under the assumption that the signal of police quality revealed in the intervention falls somewhere between the most extreme beliefs about police quality, we do not expect that all citizens update in the same direction. Unconditional estimates of the ITT of either treatment on beliefs, thus, can only provide information about the signal(s) relative to the prior distributions across the population. While this is a useful quantity, it does not provide a direct test of our argument. We thus also estimate estimands that are more consistent with Bayesian updating. Specifically, we consider treatment effects on the second moment, e.g. the standard deviation, at the cuadrante level, to examine whether the posteriors we measure have lower variance subsequent to police-citizen meetings. We also examine heterogeneity in updating by prior beliefs.

After establishing the effect of the treatments on updating of beliefs, we then examine one behavioral outcome: 123 (the equivalent of 911) calls by citizens. This is a measure of crime reporting, or collaboration with the police. If citizens update positively on police type (propensity to act) via the meetings or flyers, we expect that, ceteris paribus, they will report crime at higher rates. In order to identify this outcome, however, we need to make assumptions about the degree to

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4The baseline survey only covers citizens.
which this intervention changes crime. Given the relatively weak-handed intervention, we assume no effect on crime. This allows us to compare levels of reporting, assuming the underlying rate of crime incidence does not change.

Ultimately, citizens choose to collaborate (or not) with police in the interest of improving public safety/reducing crime. Citizens report to police when they sense that police are sufficiently likely to actually address crime. Because citizen reporting helps crimes enter police records, if the intervention moves reporting, the predictions for crime are ambiguous and/or undefined. For example, higher reporting of crime could drive higher incidence in the administrative data, even holding constant the true level of crime. For this reason, we make assumptions (backed by survey data) that citizens sense that police can contribute to security, without measuring crime as an ultimate outcome.

4.2 Theoretical Framework: Gender and Demand for Policing

One immediate observation from meetings is that participants appear to be disproportionately (1) female and (2) middle-aged or older. These observations are consistent with research on community health and local infrastructure in Venezuela (Fernandes, 2010; Hanson, 2017, 2018; Zarembber, 2010) and in Ecuador and Bolivia (Lind, 2002) that finds substantial centrality in lower and working-class urban communities in Latin America (Martin Barbero, 1993) has catalyzed their participation in local-level community initiatives (Fernandes, 2010). Richards (2004) (2004: 4) has noted that the “de-emphasis on state provision of social services characteristic of neoliberal reform carries with it a corresponding focus on compelling civil society – and in particular women’s organizations – to perform what were once state responsibilities. The result is a model of citizenship in which women, particularly in poor sectors, provide care-oriented services for free.” Little research, however, has sought to explain higher rates of participation beyond broad social and economic trends such as neoliberalism and the political exclusion based in gender.
While existing studies of policing provide mixed evidence on differential response to the institution of new police forces by gender (e.g., Blair, Karim, and Morse, 2019; Cooper, 2018), we know relatively less about how citizens may choose to engage with police or request police services in different ways and why. The design present experiment allows for clean measurement of differences in rates of uptake of participation in meetings. In particular, because invitations were distributed to a random sample of the center (manzana) of each cuadrante, we can use census data to benchmark who responds to these invitations by attending meetings. We make three hypotheses about rates of participation, informed in part by qualitative observation of meetings:

H1: Women are more likely to participate in community policing meetings than men.

H2: Among adult participants, rates of participation in community policing meetings increase with age.

Note that these comparisons are not causal: we are not “identifying” the causal effect of gender. We are, instead, documenting differential patterns of response to community meetings. The core of this paper is devoted to understanding why these patterns emerge. In particular, we examine several explanations for why participation may vary by gender and age as follows.

Gendered preferences on security: It may be the case that women and men have different preferences with respect to crime and security. While we typically view crime as a valence issue (e.g., few desire “more crime” or “less security”), it may be the case that crime is more salient as an issue for women than men. If this is the case, we expect variation in baseline assessments of security, by gender, correlates with differences in participation in community meetings.

Gendered repertoire of strategies to promote security: Women may have less recourse to counter threats to security through other means or informal means of justice/dispute resolution. Higher reliance on police drives higher rates of desire to engage with local police in community policing meetings. If it is the case that men maintain a uniform advantage in informal means of justice, differences in participation may be highest where rates of insecurity are highest. Alternatively, and consistent with stories of exclusion from other governing fora, it may be the case that participation in voluntary meetings substitutes for participation in more formal forms of community governance, such as juntas de acción communal (JAC). If this substitution occurs, we may expect higher attendance of women in community policing meetings where differences in participation in JACs between men and women (baseline) is highest.

Differential costs of participation: Meetings incur an investment of time and typically occurred during afternoon hours. For individuals working outside the home or outside the neighborhood, it may be the case that the timing of meetings served as a barrier to participation. In this case, we will examine differences in participation by different groups, on the basis of the timing of the three police-citizen meetings (by day and hour).

Police as a gendered institution: Beat-level police officers – the police participants in the community meetings – are overwhelmingly young (< 30 years) men. It may be the case that desire to engage with the police varies with perceived attributes of the agents therein. We have little variation in terms of police gender by cuadrante, but we do observe a rich set of interactions through ethnographic notes. We will document variation in these interactions between different types of citizens.
This framework is somewhat more inductive than the prior; there is some dependence in the observation of variation in participation by citizen characteristics. We aim to decompose these explanations by estimating a demand-theoretic model structurally, in which the actor is the citizen.

4.3 Note: Metaketa Arguments

This study is part of a set of coordinated experiments in six countries, which together comprise the Metaketa IV initiative from Evidence in Governance and Politics (EGAP). The meta-analysis of data from the six experiments will test a long list of hypotheses; this list appears in Appendix A.1. Our individual study tests the shorter list of hypotheses described in each paper above, both because (a) these are the statements that follow directly from the questions and arguments we posit as relevant to the Medellín context and because (b) our study is not powered to test additional hypotheses.

5 Data and measurement

5.1 Overview

Our research design leverages three types of data to test our hypothesis and guide the interpretation of our results. We rely on (1) administrative data on crime reporting, (2) survey data of both citizens and police-officers, and (3) complex sets of qualitative notes, interviews, and observations. We describe each one below.

5.1.1 Administrative Data

Our first source of administrative data is census data on population by cuadrante. Here, we measure variation in citizen characteristics by cuadrante in order to benchmark meeting participation to the eligible population. We will use the new 2018 Census data once it becomes available.

We will analyze fine-grained, detailed administrative data on crime-reporting citizen behavior. Broadly speaking, we have 4 different outcomes, namely data reported theft, reported domestic violence, reported public misconduct, and calls to emergency line NUSE 123, akin to 911. We use pre-treatment measures of these variables, in addition to homicides, to estimate crime rates in neighborhoods prior to the treatment.

These crime data-points are time-stamped and geo-located. All the data is provided by the Information Office (SISC) of the Security Secretariat of the City of Medellín. Table 2 describes the crime data.

5.1.2 Survey Data

Citizens We conduct baseline and endline surveys of citizens. The baseline will include 15 respondents per cuadrante, for a total of 5,205 respondents (one per household). Households are surveyed randomly within micro-neighborhood through a random walk method, with a random starting point.

The expected attrition rate is about 0.3, implying an endline sample of approximately 3,643 (approximately 10 to 11 endline respondents per micro-neighborhood). All surveys are conducted
<table>
<thead>
<tr>
<th>Behavior</th>
<th>Information</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theft reported</td>
<td>Type of property stolen (e.g., motor vehicle, cellphone), “weapon” (e.g., firearm), as well as background information on the victim such as age and gender.</td>
<td>Fiscalía General de la Nación and SIJIN (Seccionales de Investigación Criminal) via SISC</td>
</tr>
<tr>
<td>Domestic violence reported</td>
<td>Type of violence (e.g., physical, threat), motive (e.g., jealousy), institution where report is made (e.g., police station, permanencia) as well as background information on the victim such as age and gender.</td>
<td>Subsecretaría de gobierno local y convivencia via SISC</td>
</tr>
<tr>
<td>‘Public misconduct’ (Conductas contrarias a la convivencia) reported</td>
<td>Comparendos (i.e., subpoena) on fights, brawls, gunfire, public consumption of alcohol, etc. as well as background information on the perpetrator such as age and gender.</td>
<td>NUSE 123 via SISC</td>
</tr>
<tr>
<td>NUSE 123 calls</td>
<td>All calls to the NUSE 123 line, with reason for calling (e.g., domestic violence, tips, etc.)</td>
<td>NUSE 123 via SISC</td>
</tr>
<tr>
<td>Homicide (covariate only)</td>
<td>Type of weapon used, if any (e.g., firearm), notes on likely motive (e.g., linked to theft, linked to gangs, etc), as well as background information on the victim.</td>
<td>INML (Instituto Nacional de Medicina Legal y Ciencias Forenses), SIJIN (Seccionales de Investigación Criminal) and CTI (Cuerpo Técnico de Investigación, under La Fiscalía General de la Nación) via SISC-Secretaría de Seguridad y Convivencia as technical observer</td>
</tr>
</tbody>
</table>

Table 2: Summary of administrative crime data: outcomes measuring crime and crime reports.
in-person, using tablets, with printed visual aids for scales. The survey team will introduce themselves as part of INVAMER, a well-known survey firm in Medellín, asking opinions about community life and security. Broadly speaking, the survey has the following topic-areas:

1. Security perception
2. Trust and perception of Institutions (focus on Police)
3. Crime victimization
4. Community relations and behavior
5. Political attitudes
6. Demographics

**Patrol officers** We conduct endline survey of patrol officers. The endline will ideally include 2 patrol officers per cuadrante, thus expecting a sample size of 694. Broadly speaking, the survey has the following topic-areas:

1. Information acquisition for policing
2. Police perceptions of citizens
3. Police perceptions of citizens’ perceptions about police/behavior toward police
4. Demographics (including experience in the Police)

### 5.1.3 Qualitative Data

Finally, we will collect a complex set of qualitative data, in three ways: (1) semi-structured interviews conducted before and after the intervention, (2) observation (i.e., detailed ethnographic notes) of 100% of the police-community meetings, and (3) post-intervention focus groups conducted.

1. **Semi-structured interviews.** This include citizens, local-leaders, and police officers.

2. **Observation reports of meetings.** Our local enumerators have a strict protocol on delivering reports for every single meeting. Thus, we will have a minimum of 558 reports (as some meetings are lead by two enumerators, early on they will produce two reports.) They include detailed accounts of the meeting interactions, questions, reactions, attitudes, corporal language, and so on.

3. **Focus groups.** We will conduct 51 focus groups (one per cuadrante). These are sampled randomly based on the following classification: (i) cuadrante assigned to ‘no-meeting’ condition, (ii) cuadrante assigned to meeting, with attendance higher than comuna-level median attendance, and (iii) cuadrante assigned to meeting, with attendance lower than comuna-level median attendance.

Across the board, a constant comparison analysis of qualitative data will be used to illuminate the mechanisms underlying any observed treatment effects on community attitudes and police perceptions.
5.2 Outcome measurement: Trust paper

5.2.1 Manipulation checks

Before estimating the effect of the intervention on beliefs or behavior, we compare awareness of the intervention itself across citizens and officers in treatment and control neighborhoods. To do so, we use responses to questions detailed in Table 3.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Data Type</th>
<th>Details</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens: meetings</td>
<td>Survey</td>
<td>In the past 12 months, do you remember receiving invitations to meetings with police officers from your neighborhood?</td>
<td>{0,1}</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ If no: In the past 12 months, do you remember hearing about meetings between citizens and police officers from someone in your neighborhood?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>In the past 12 months have you attended meetings between citizens and police from your neighborhood?</td>
<td></td>
</tr>
<tr>
<td>Citizens: leaflets</td>
<td>Survey</td>
<td>In the past 12 months, do you remember receiving flyers with security-related information?</td>
<td>{0,1}</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ If no: In the past 12 months, do you remember hearing about flyers with security-related information that were distributed in your neighborhood?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comprehension check – questions on whether citizens remember the content of the flyers conditional on having received them?</td>
<td></td>
</tr>
<tr>
<td>Police Officers</td>
<td>Survey</td>
<td>In the past 12 months, have you attended meetings with the residents of your beat?</td>
<td>{0,1}</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ [If yes] How many of these meetings have you attended?</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Manipulation checks. All outcomes come from the endline citizen and police survey.

5.2.2 Citizen Beliefs

The theory outlined in Section 4 predicts that the interventions will affect citizen beliefs about police officers, officer beliefs about citizens, and the behavior of both citizens and police officers. This section specifies how we measure these beliefs and behaviors.

We use two principal survey-based measures of beliefs about the police, trust and beliefs about police quality, as outlined in Table 4. Naturally, responses in the baseline survey correspond to prior beliefs, and responses in the endline survey correspond to posterior beliefs.
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Data Type</th>
<th>Details</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>Survey</td>
<td><strong>Responses to the question:</strong> How much do you trust the following institutions or groups?</td>
<td>{1, 2, 3, 4, 5}</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police officers in your neighborhood.</td>
<td></td>
</tr>
<tr>
<td>Police Quality</td>
<td>Survey</td>
<td><strong>Index of responses to:</strong> To what extent do you agree or disagree with each of the following statements?</td>
<td>Continuous index, $\mu = 0$, $\sigma = 1$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police act upon citizen comments and complaints about security in my community.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police take cases seriously and investigate them.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police are corrupt.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police provide the same quality of service to all citizens.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police have the capacity to respond to incidents of crime in a timely manner.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The police have the capacity to investigate crimes and gather evidence effectively.</td>
<td></td>
</tr>
<tr>
<td>Other Institutions Quality</td>
<td>Survey</td>
<td>Same as above but with respect to</td>
<td>Continuous index, $\mu = 0$, $\sigma = 1$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The District Attorney’s office.</td>
<td></td>
</tr>
<tr>
<td>Security Perception</td>
<td>Survey</td>
<td><strong>Index of responses to the following questions:</strong></td>
<td>Continuous index, $\mu = 0$, $\sigma = 1$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Overall, how safe do you feel in your neighborhood? (Level).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ With respect to six months ago, how safe do you feel in your neighborhood? (Change).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Out of fear, during the last 12 months did you ever . . . (Yes/No)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ avoid going out alone at night?.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ avoid certain streets or roads at night?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ avoid using public transportation?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ avoid new purchases as they could be stolen?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ avoid letting children play on the street?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ purchase any type of firearm?</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Outcomes measuring citizen beliefs. All outcomes come from the endline citizen survey. The indices are constructed using a $z$-score index.

These are scaled using a $z$-score index, with mean 0, standard deviation 1 (with respect to the control group).

We ask the same trust and quality questions about other government agencies, in addition to the police. Specifically, we also ask about the district attorney’s office; this is important because citizens could conflate the responsibilities of the police and the D.A.’s office. For this same reason,
the endline survey will also pose questions that attempt to disentangle citizens’ trust in the specific officers assigned to their neighborhood police beat from trust in the police institution as a whole.

We also study the effect of the intervention on perceptions of security, as described in the bottom of Table 4.

5.2.3 Officer Beliefs

Table 5 describes our survey measures in the (endline) police survey.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Data Type</th>
<th>Details</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens cooperation</td>
<td>Survey</td>
<td><em>Index of responses to:</em> To what extent do you agree or disagree with each of the following statements?</td>
<td>Continuous index, $\mu = 0$, $\sigma = 1$</td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Citizens are concerned for the well-being of police officers on my beat.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ Most of the citizens on my beat are cooperative and respectful.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>→ The information that citizens report is useful.</td>
<td></td>
</tr>
</tbody>
</table>

Table 5: Outcomes measuring police beliefs. All outcomes come from the endline police survey. The index is constructed using a $z$-score index.

5.2.4 Citizen Behavior

We use both (1) self-reported crime reporting (from our survey data) and (2) administrative data to measure the rate at which citizens report crimes.
Crime Reporting: Survey

*For each of the crimes listed below, we ask victims about their reporting behavior and non-victims about their hypothetical reporting behavior, using the following sequence of questions:* Thinking about the last six months,

→ were you or a member of your household a victim of [crime]?
→ was a friend or acquaintance in this neighborhood a victim of [crime]?
→ [If yes] Did the victim report the crime?
→ [If yes] To whom did the victim report the crime?
→ [If no] If you or someone you know were a victim of [crime], would you report it, or not?

Crime Reporting: Admin. data

*Geocoded, time-stamped administrative data to construct two measures of crime reporting at the micro-neighborhood level*

→ Calls to the emergency line NUSE 123
→ Reports of theft, domestic violence, and “public misconduct”

Table 6: Outcomes measuring citizen reporting. All outcomes come from the endline citizen survey. The index is constructed using a z-score index.

For self-reported crime reporting based on our survey data, we ask victims about their reporting behavior and non-victims about their hypothetical reporting behavior. We do so with questions outlined in Table 6. Moreover, we do so for (i) crimes not committed by the police and (ii) crimes committed by the police:

a. Robbery, auto theft, fist fights; *asked only about victimization of neighbors, not about own or own-household victimization*: domestic violence, sexual abuse, homicide

b. Police physical abuse, police verbal abuse

We then use responses to these questions to construct two indices of self-reported crime reporting behavior:

\[
\text{Report}^a_t \equiv \text{Count of actual and hypothetical reports of crimes in group (a)}
\]
\[
\text{Report}^b_t \equiv \text{Count of actual and hypothetical reports of crimes in group (b)}
\]

where the subscript \( t \in \{1, 2\} \) distinguishes baseline from endline measures.

### 5.3 Outcome Measurement: Gender and Demand for Policing

Our primary measures for the first portion of the project come from census data and the sign-up sheets and notes collected by our research assistants during the community policing meetings. We evaluate rates of participation at both the *cuadrante* level (the cluster) as well as the individual (population) level, as enumerated in Table 7.
### Outcome Data Type Details Range

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Data Type</th>
<th>Details</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual participation</td>
<td>Census + meeting logs</td>
<td>Create a long-form dataset including rows for each adult resident of a cuadrante according to gender and age designations, i.e. group $g$. Make this a panel for meetings $t \in {1, 2, 3}$. Impute a 1 for attendance matching each type of individual in attendance in meeting $t$.</td>
<td>[0,1]</td>
</tr>
<tr>
<td>Community-level participation, by group, $g$</td>
<td>Census + meeting logs</td>
<td>The ratio of: Participants in meeting $t$ belonging to group $g$ / Cuadrante population belonging to group $g$</td>
<td>[0,1]</td>
</tr>
</tbody>
</table>

Table 7: Outcomes measuring rates of participation across subgroups in the population

<table>
<thead>
<tr>
<th>Community policing</th>
<th>Informational fliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flier delivery</td>
<td></td>
</tr>
<tr>
<td>- Dates of delivery of invitations for meetings 1, 2, and 3</td>
<td>- Dates of delivery of fliers for deliveries 1, 2, 3</td>
</tr>
<tr>
<td>- Indicator for whether fliers were delivered</td>
<td>- Indicator for whether fliers were delivered</td>
</tr>
<tr>
<td>Recall of fliers</td>
<td></td>
</tr>
<tr>
<td>- Recall receiving at least one invitation to a meeting in survey (binary)</td>
<td>- Recall receiving at least one flier in survey (binary)</td>
</tr>
<tr>
<td>Information processing of fliers</td>
<td></td>
</tr>
<tr>
<td>- Recall content of fliers: chooses 3 correct topics from list of 4 options (binary)</td>
<td></td>
</tr>
<tr>
<td>Participation in meetings</td>
<td></td>
</tr>
<tr>
<td>- Attendance at each meeting by citizens from meeting notes (count) [non-experimental]</td>
<td></td>
</tr>
<tr>
<td>- Attendance at each meeting by police from meeting notes (count) [non-experimental]</td>
<td></td>
</tr>
<tr>
<td>- Reported attendance by citizens (binary) [experimental]</td>
<td></td>
</tr>
</tbody>
</table>

Table 8: Outcomes on implementation and compliance for study in the comparison of two policies.

The purpose of constructing outcomes at both the community and individual level is because cuadrantes that are heterogeneous in population receive differential weight with the individual measure.

### 5.4 Outcome Measurement: Metaketa Contribution

See appendix A.1 for an enumeration of outcome measures used in the meta-analysis and contribution to the joint product.

In our article, we will also focus on comparability across the two interventions. As a reminder, we care about implementation, uptake, and then the effects of each intervention. Conveniently, there were three meetings and three sets of fliers delivered by the field team.
6 Estimation

6.1 Estimation: Trust Paper

Section 4 motivated our two principal hypotheses: that police-community interaction and/or information about police performance affect (a) trust and perceptions surrounding the police and (b) crime reporting. This section describes how we estimate the parameters of interest.

6.1.1 Baseline Trust Levels: Prior Beliefs

Because our theory focuses on updating of beliefs, characterizing prior beliefs is important for our understanding what we should expect in terms of updating and interpreting any changes in beliefs or behavior. Thus, we seek to understand baseline levels of trust between citizens and local police. We view this exercise as a characterization of citizens’ priors about the police. We use three sources of data. First, we leverage pre-treatment qualitative data. This includes a series of 69 semi-structured baseline interviews, including 12 police officers, 50 community leaders, and 7 local outreach coordinators from the mayor’s office. We also convened a focus group of citizens. Because we do not have survey data for the police, we use these in an effort to interpret the quantitative findings.

Second, we seek to explain citizen beliefs as reported in the baseline survey. We examine the determinants of citizen beliefs with respect to three sets of predictors:

- **Cuadrante**-level measures of crime and policing – several level measures of crime and gang presence from administrative data
- Individual demographic characteristics – age, gender, social class (estrato), and education
- Individual experiences with the police and crime as reported in the baseline survey, including crime victimization and reporting.

Finally, we estimate the first-stage ATE on citizen attendance using the survey data. Specifically, we estimate:

\[
\text{Attended a meeting}_{ijb} = \beta_0 + \beta_1 T_{jm} + \gamma_b + \epsilon_{ijb} 
\]

\[
\text{Attended a meeting}_{ijb} = \beta_0 + \beta_1 T_{jm} + \delta \mathbf{X}_{ijb} + \kappa T_{jm} \mathbf{X}_{ijb} + \gamma_b + \epsilon_{ijb} 
\]

Where Attended a meeting\(_{ijb}\) is an indicator of whether a citizen attended a police-citizen meeting during the intervention. We expect \(\beta_1 > 0\) in the estimator expressed in Equation 1. We then explore heterogeneity by citizen and cuadrante characteristics in Equation 2.

We seek to exploit variation in the first stage relationship by examining attendance of the police and citizens in the first advertised meeting. First, we look at community-level predictors of police and citizen attendance in the treatment group. Our measure of police priors here is the attendance of police at the first meeting, \(a_p \in \{0, 1, 2\}\). Our behavioral measure of citizen priors is the number of citizens in attendance at the first meeting, \(a_c \in \{0, 1, \ldots, 61\}\). Because flyers were distributed to 350 households in all cuadrantes, we can meaningfully compare these counts regardless of population size. We use the same random forests algorithm that we use on the citizen survey data. This exercise is non-experimental.
6.1.2 Does the intervention lead people to update their beliefs?

We aim to estimate the effects of assignment to treatment along each margin, namely:

\[
\begin{align*}
ITT_m &= E[Citizen beliefs|T_m = 1] - E[Citizen beliefs|T_m = 0] \\
ITT_f &= E[Citizen beliefs|T_f = 1] - E[Citizen beliefs|T_f = 0]
\end{align*}
\]

These estimands (\(ITT_m\) and \(ITT_f\)) are ITTs; they capture the average effect of meetings and the average effect of the information treatment (averaging over the rows or columns in the \(2 \times 2\) factorial design). We will report estimates of these parameters with and without covariate adjustment; our baseline specification for estimating is:

\[
\text{Beliefs}^{t=1}_{ijb} = \delta \text{Beliefs}^{t=0}_{ijb} + \beta_1 T_m^T_{jb} + \beta_2 T_f^T_{jb} + \gamma_b + \epsilon_{t=1}^{ijb}
\]

where \(i\) indexes individual survey respondents, \(j\) indexes \textit{cuadrantes}, and \(t\) indexes the survey round (1 indicates endline and 0 indicates baseline). \(\gamma_b\) is a vector of block fixed effects.

When estimating the analysis with covariate-adjustment, where we demean our covariates, \(X_{ijb}\), and fully interact them with our treatment indicators to produce unbiased and consistent average effects even in the presence of heterogeneity along these covariates (\(Lin, 2013; Imbens and Rubin, 2015\)).

We also allow for the possibility that the two treatments function as complements or as substitutes among the complier stratum, though our calculations in Section 7 indicate that we will only be able to test for complementarities (or substitutabilities) if there is a high degree of correlation between baseline and endline outcomes. We do not anticipate that this is the case. In this case, we estimate:

\[
\text{Beliefs}^{t=1}_{ijb} = \beta_1 T_m^T_{jb} + \beta_2 T_f^T_{jb} + \beta_3 T_m^T_{jb} T_f^T_{jb} + \gamma_b + \delta \text{Beliefs}^{t=1}_{ijb} + \epsilon_{t=1}^{ijb}
\]

Rejection of the null hypothesis that \(\beta_3 = 0\) would indicate that the two treatments are either substitutes or complements among compliers (depending on the direction of the difference).

However, because we are measuring updating, these ITTs are relatively uninformative, because the direction of updating should depend on an individual’s prior and the signal (\(Arias et al., 2018\)). We consider two approaches. First, we interact prior beliefs with the treatment to look at conditional updating as a function of the prior belief. For robustness, we discretize the belief into terciles and estimate separate interactions for each tercile.

\[
\text{Beliefs}^{t=1}_{ijb} = \delta \text{Beliefs}^{t=0}_{ijb} + \beta_1 T_m^T_{jb} + \psi_1 T_m^T_{jb} \text{Beliefs}^{t=0}_{ijb} + \beta_2 T_f^T_{jb} + \psi_2 T_f^T_{jb} \text{Beliefs}^{t=0}_{ijb} + \gamma_b + \epsilon_{t=1}^{ijb}
\]

We also look at treatment effects on the second moment. To do so, we estimate Std. Dev. \(\text{Beliefs}^{t=1}_{jb}\), the standard deviation of the posterior beliefs within a cuadrante and estimate:

\[
\text{Std. Dev. Beliefs}^{t=1}_{jb} = \delta \text{Std. Dev. Beliefs}^{t=0}_{jb} + \beta_1 T_m^T_{jb} + \beta_2 T_f^T_{jb} + \gamma_b + \epsilon_{jb}
\]

Moreover, our post-intervention focus groups and detailed meeting-notes will qualitatively illustrate the extent to which citizens acted and reacted positively or negatively during the meetings; same notes along with post-intervention interviews with police officers will gather similar descriptions.
6.1.3 Does the intervention lead to different police beliefs about citizens?

Because we do not have baseline data on police beliefs, our analysis of police beliefs lacks some of the nuance of the citizen panel survey. Nevertheless, we can estimate (average) differences in endline beliefs of police as a function of the meetings treatment. We do not anticipate an effect of the flyers on police beliefs. As such, we will estimate:

\[
\text{Beliefs}_{ijb} = \beta_0 + \beta_1 T_{jb} + \gamma_b + \epsilon_{ijb} \tag{7}
\]

with and without covariate adjustment as above. If we can successfully survey at least 2 officers in the majority of cuadrantes in each condition, we will also examine treatment effects on the second moment as in Equation 6.

Exploratory tests may allow us to assess differential updating among different types of officers (e.g. experience/rank) or cuadrante (e.g. level of crime/insecurity). The interpretation of these estimates relies upon our ability to identify correlates of prior beliefs among officers.

6.1.4 Does the intervention change crime reporting behavior?

To understand the extent to which our interventions influenced crime reporting behavior, we aim to estimate the following:

\[
\begin{align*}
\text{ITT}_m &= E(\text{Crime reporting}|T_m) - E(\text{Crime reporting}|\neg T_m) \\
\text{ITT}_f &= E(\text{Crime reporting}|T_f) - E(\text{Crime reporting}|\neg T_f)
\end{align*}
\]

To do so, first, we use survey-data, and rely the same equation as in (1), but examining Reporting_{ijb} instead of Beliefs_{ijb}.

Second, we use administrative data, aggregated at the cuadrante-day level \(jt\) level, as follows. We weight cuadrante-level observations (i.e. the reporting data) by the share of households to whom we delivered leaflets. In control cuadrantes, we use the share of leaflets delivered to the average treated cuadrante within a block. This weighting scheme permits more precise estimates by de-weighting large cuadrantes in which only a small fraction of households could receive the leaflets.

\[
\text{Reporting}_{jbt} = \beta_1 T_j^m + \beta_2 T_j^f + \gamma_b + \kappa_t + \epsilon_{ijb} \tag{8}
\]

Where Reporting_{jbt} is one of the measures of crime reporting defined in Section 5, and all other terms are as defined in the previous section (6.1.2). This allows us to examine average (daily) levels of reporting over the post-intervention period. As above, we cluster standard errors at the level of the cuadrante.

In principle, however, changes in behavior could have more distinct temporal patterns that will be attenuated in the estimator in Equation 8. First, the delivery of flyers and the start of community meetings was staggered throughout the treatment period. Our randomization is only cross-sectional, not temporal, so these comparisons should provide suggestive evidence but are
ultimately non-experimental. We do not anticipate that changes in behavior predate the first meeting/flyer disbursal. As such, we define two variables: $Post^m_j$, as an indicator taking the value of 1 after the first community meeting in a precinct (in meeting cuadrantes), and $Post^f_j$, as an indicator taking the value of 1 after the first flyer distribution (in flyer treatment cuadrantes). We thus estimate:

$$\text{Reporting}_{jbt} = \beta_1 T^m_j + \theta_1 Post^m_j + \beta_2 T^f_j + \theta_2 Post^f_j + \gamma_b + \kappa_t + \epsilon_{ijb}$$  \hspace{1cm} (9)

Ultimately, we seek to test the null hypotheses that $\theta_1 = 0$ and that $\theta_2 = 0$. We can examine anticipation by testing the hypotheses $\beta_1 = 0$ and $\beta_2 = 0$.

Second, it is possible that effects on behavior are short-lived. Indeed, if community members are continuously updating, we may expect to see the strongest effects in the immediate wake of flyer distribution. These comparisons allow us to test for decay. To examine these effects, we redefine the variables $Post^m_j$ and $Post^f_j$ as indicators for a meeting/flyer distribution in the past $\{1, 2, ..., 30\}$ days. By testing the hypotheses, $\theta_1 = 0$ and $\theta_2 = 0$, we can examine empirical patterns of reporting in response to the randomized treatments.

### 6.2 Estimation for Gender and Demand for Policing Paper

In order to establish different rates of participation according to age and gender, we will estimate specifications of the form:

$$\text{Attendance}_{ijt} = \beta_0 + \beta_1 \text{Female}_i + \beta_2 \text{Age group}_i + \epsilon_{ijt}$$ \hspace{1cm} (10)

$$\text{Prop. Attendance}_{ij} = \beta_0 + \beta_1 \text{Female}_j + \beta_2 \text{Age group}_j + \epsilon_{ij}$$ \hspace{1cm} (11)

These specifications will estimate differences in participation by group. In particular $\beta_1$ tests our hypothesis on gender; $\beta_2$ tests our hypothesis on age. Equation 10 estimates differences in rates of attendance at the individual level; Equation 11 estimates differences in rates of attendance at the community level. We can also subject these specifications to the use of community-level covariates or community-level fixed effects as well as meeting fixed effects.

Further specifications to understand why we observe differences will proceed according to our observation of differences. [To be updated in a subsequent version of this pre-analysis plan.]

### 6.3 Estimation for Metaketa Contribution

See Appendix A.1 for details on our estimators that will be used in the meta-analysis. We defer to the meta-analysis pre-analysis plan (Blair et al., 2018) in the case of any conflicts between these documents or lack of clarity.

For the comparison of policies, we will use the same estimators as in the meta-analysis whenever experimental comparisons are feasible. When they are not, we will assess rates within the treatment (resp. control) group for each treatment.
7 Power

We use simulation together with our baseline data to estimate our statistical power for testing hypotheses about citizens’ trust in the police. The outcome, described in Section 5.2, is an z-score index of responses to questions about several outcomes. We focus on citizen beliefs for the purpose of this simulation. To do so, we begin the simulation by calculating this index in our baseline data. Denote the baseline value of this index as $\text{Beliefs}_{t=0}^{ij}$. We merge this data with the treatment assignment.

We simulate outcomes of the index at endline, denoted $\text{Beliefs}_{t=1}^{ij}$, under various assumptions about the data generating process. Note that the intracluster correlation (ICC) of the baseline index is low (0.027). The following simulated data generating process uses the actual treatment indicators and randomly draws individual-level treatment effects. This DGP roughly preserves the low ICC at small effect sizes, including the magnitudes of those simulated here.

$$\text{Beliefs}_{t=1}^{ij} = \begin{cases} \text{Beliefs}_{t=0}^{ij} + \phi_i + \tau_i^m T_i^m + \tau_i^f T_i^f + \tau_i^{mf} T_i^f T_i^m & \text{if } D_i = 0 \\ \text{missing} & \text{if } D_i = 1 \end{cases}$$

$$D_i \sim \text{Bernoulli}(p)$$
$$\phi_i \sim \mathcal{N}(0, \sigma)$$
$$\tau_i^m \sim \mathcal{N}(\mu_f, \sigma_f)$$
$$\tau_i^f \sim \mathcal{N}(\mu_m, \sigma_m)$$
$$\tau_i^{mf} \sim \mathcal{N}(\mu_{mf}, \sigma_{mf})$$

Here $p$ is the probability that an individual is not located at endline (the attrition rate). We assume that attrition is independent of treatment assignment and of geographic location (cuadrante). $D_i$ is thus an indicator for endline missingness. Where we relocate a respondent, we measure $\text{Beliefs}_{t=1}^{ij}$. This is a function of the baseline trust index $\text{Beliefs}_{t=0}^{ij}$, noise ($\phi_i$), treatment assignment $\tau_i$, and individual treatment effects ($\tau_i^m$, $\tau_i^f$, and $\tau_i^{mf}$). We vary eight underlying parameters to assess the implications for statistical power: $p$, $\sigma$, $\mu_m$, $\sigma_m$, $\mu_f$, $\sigma_f$, $\mu_{mf}$, and $\sigma_{mf}$.

To illustrate, we examine the power of the two proposed estimators in Equations 2 (denoted “margins”) and 4 (denoted “with interaction”). The covariate adjustment set includes only decile bins of the lagged (baseline) dependent variable. We estimate using OLS with standard errors clustered at the level of the cuadrante (police beat).

Given the number of variants of the data generating process, we proceed in three steps. First, we examine the implications of the attrition rate ($p$) and serial correlation of the untreated potential outcomes ($\sigma$), holding treatment effects fixed. Second, we look at the implications of varying the magnitude of the treatment effects, holding attrition and serial correlation fixed. Finally, we discuss the implications of varying the other parameters.

7.1 Attrition rate and serial correlation

Serial correlation in this context is a function of both measurement error and how individuals’ trust varies over time. We examine the power of the experiment to detect constant standardized

---

5Where data is missing, we impute the cuadrante median.
treatment effects of .1 of both factors with no complementarities ($\mu_m = .1, \mu_f = .1, \mu_{mf} = 0, \sigma_m = 0, \sigma_f = 0, \sigma_{mf} = 0$) across a grid of $p \in \{0.2, 0.3, 0.4\}$ and $\sigma \in \{1, 1.5, 2.25\}$.

The results in Table 9 suggest that for small effect sizes, the power of the design depends crucially on the correlation between the baseline and endline outcomes. If this correlation is high (e.g. $> 0.7$), we are able to detect very small standardized treatment effects. The power losses from attrition (within the simulated $p$’s) are much more modest. Our survey firm has advised us to expect a survey attrition rate of around 30%.

<table>
<thead>
<tr>
<th>Serial correlation</th>
<th>Attrition rate</th>
<th>Marginal Effect Estimator</th>
<th>Interaction effect Estimator</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\sigma$</td>
<td>$\approx$ Cor.</td>
<td>$p$</td>
<td>$\beta_1$</td>
</tr>
<tr>
<td>1</td>
<td>0.7</td>
<td>0.2</td>
<td>0.94</td>
</tr>
<tr>
<td>1</td>
<td>0.7</td>
<td>0.3</td>
<td>0.76</td>
</tr>
<tr>
<td>1</td>
<td>0.7</td>
<td>0.4</td>
<td>0.57</td>
</tr>
<tr>
<td>1.35</td>
<td>0.6</td>
<td>0.2</td>
<td>0.92</td>
</tr>
<tr>
<td>1.35</td>
<td>0.6</td>
<td>0.3</td>
<td>0.74</td>
</tr>
<tr>
<td>1.35</td>
<td>0.6</td>
<td>0.4</td>
<td>0.58</td>
</tr>
<tr>
<td>1.75</td>
<td>0.5</td>
<td>0.2</td>
<td>0.88</td>
</tr>
<tr>
<td>1.75</td>
<td>0.5</td>
<td>0.3</td>
<td>0.66</td>
</tr>
<tr>
<td>1.75</td>
<td>0.5</td>
<td>0.4</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Table 9: This table estimates the power of the design under different levels of serial correlation in the control group outcomes (denoted in columns 1-2) and levels of attrition in the survey (denoted in column 3). We assume $\mu_m = .1, \mu_f = .1, \mu_{mf} = 0, \sigma_m = 0, \sigma_f = 0, \sigma_{mf} = 0$. Each cell represents 700 simulations. Imbalances in the power in columns 4-5 and 6-7 come from both the assignment and from simulation error. Hypothesis tests are one-tailed.

### 7.2 Effect Size

Here we fix $\sigma = 1.35$ (serial correlation $\approx 0.6$) and $p = 0.3$ at expected levels. We further set $\mu_{mf} = 0$ (no complementarities); $\sigma_m = 0, \sigma_f = 0$, and $\sigma_{mf} = 0$ (constant treatment effects); while varying $\mu_f$ and $\mu_m$, the principal treatment effects of interest. Table 10 suggests that at expected levels of attrition and serial correlation, the design is well-powered to detect effects of 0.2 baseline standard deviations. As anticipated, the marginal effect estimator is better powered than the three-arm estimator.

Finally, we simulate a non-zero interaction effect in Table 11, demonstrating that we are likely severely underpowered to detect reasonable interaction effects between the two arms.

While we omit further simulations, increasing the noise on estimated treatment effects (e.g. $\sigma_m$ and $\sigma_f$) implies very small reductions in the power of the design. Introducing complementarities between the treatments ($\tau_{mf} > 0$) increases power predictably for both estimators. The data generating process simulated here may be helpful in ex-post power calculations.

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*Under these $\sigma$ values $\text{Cor}(Y^B_{ij}, Y^E_{ij}|T^m_{ij} = 0, T^f_{ij} = 0) \in \{0.7, 0.6, 0.5\}$, respectively.*
8 Ethics

8.1 Risk / Benefit Assessment

Potential risks to participants. Like all studies that use surveys and interviews methods, ours entails the risk that certain questions will make respondents feel uncomfortable. For example, asking them whether they trust the police, or whether they would cooperate with a police investigation if they were able to provide relevant information, may make certain respondents feel uneasy—especially if the answers to these questions are “no.” Likewise, questions about past crime victimization (“Have you been the victim of a robbery?”) may bring up unpleasant memories. Similarly, asking police officers about their perceptions of citizens may make them feel uncomfortable.

We seek to minimize these risks by, first, emphasizing to all interviewees that their participation is voluntary and that they may end the interview at any time. These risks are commensurate with those already faced by the target population; academic and other researchers frequently field sur-
veys in Medellín, including about crime and security topics. For example, EAFIT University fields a Victimization and Perceptions Survey (Encuesta de Percepción y Victimización) that includes questions very similar to those of our survey instrument.

In addition to the risk of discomfort experienced by interviewees, there are risks associated with the intervention itself. While the objective of bringing officers, citizens, and city officials together in a town-hall format is to facilitate open and constructive conversation, there is also the possibility that these conversations become contentious and conflictive. Like the survey-related risks, however, these risks are commensurate with those already faced by the target population. The City of Medellín together with the police have held town-hall-style meetings with citizens in the past, with largely positive results. These meetings have disproportionately been attended by women and the elderly.

**Potential Study Benefits.** We expect that the interventions—both the police-community meetings and the provision of information about crime trends—will have direct benefits for subjects assigned to the treatment groups. In particular, we expect that the meetings will improve trust between citizens and the police and thereby police-community relations. Moreover, in increasing citizen awareness of mechanisms for communicating with the police and reporting crime (such as an existing cell-phone app called Seguridad en Linea), the intervention may increase access to the police for those residents assigned to treatment. For the officers, participation in the intervention may improve their awareness of and understanding of the communities they serve. The information treatment also entails benefits for participants: a more accurate view of crime trends may well increase citizens’ feelings of safety in their own communities.

If our randomized controlled trial were to find evidence of these benefits, the City of Medellín might well extend the program to control areas, thereby bringing the benefits to more citizens.

For the research community and for policymakers outside Medellin, the study will improve our understanding of the effects of police-community meetings and of information provision on citizen and police attitudes, and on citizen reporting behavior. Given that dozens of cities across the Americas have spent scarce resources on such interventions without any experimental evidence as to their effectiveness, this study would provide highly relevant inputs to active policymaking processes.

**References**


A Appendix

A.1 Complete list of Metaketa hypotheses

As noted in Section 4, our study is part of a set of coordinated experiments in six countries. These experiments together comprise the Metaketa IV initiative from Experiments in Governance and Politics. Note that due to the wording and construction of indices, we do not necessarily expect effects on all outcomes in the Colombian context. The meta-analysis of data from these experiments will test a larger set of hypotheses, reproduced from Blair et al. (2018) below.

**Primary Outcome Family 1**: Security of Life and Property

1a. Negative effect on incidence of crime†

1b. Positive effect on perceptions of safety (personal, land, and possessions)

**Primary Outcome Family 2**: Citizen Perceptions of the Police

2. Positive effect on citizen perceptions of police

**Primary Outcome Family 3**: Police Perceptions of and Behaviors Toward Citizens

3a. Positive effect on perceptions of police empathy, accountability, and abuse and corruption concerns

3b. Negative effect reporting of police abuse and bribery†

**Primary Outcome Family 4**: Behavioral Cooperation of Citizens with the Police

4a. Positive effect on reporting of crime victimization

4b. Positive effect on reporting of crime prevention tips

4c. Positive effect on reporting of victimization by the police

**Mechanism Family 1**: Perceived Costs to Citizens Cooperating with the Police

M1a. Positive effect on beliefs about police intentions

M1b. Positive effect on knowledge of criminal justice system

M1c. Positive effect on norms of citizens cooperation with police

**Mechanism Family 2**: Perceived Returns to Citizens Cooperating with the Police

M2a. Positive effect on beliefs about police capacity

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7The Meta-PAP does not posit that citizens learn in a Bayesian manner. If Bayesian learning does occur, we may expect people to update in different directions, based on the relation between the signal and prior, which may undermine ability to detect changes.
M2b. Positive effect on perceptions of responsiveness to citizen feedback

**Secondary Outcome Family 1:** Trust in the State

S1. Positive effect on trust in the state

**Secondary Outcome Family 2:** Communal Trust

S2. Positive effect on communal trust

**Compliance with Treatment:** Citizen Interactions with Police

C. Positive effect on rate of citizen interactions with police

### A.2 Metaketa Estimators

The estimators that will be employed in the meta analysis are as follows. For survey-based outcomes of police or citizens, we use an estimator analogous to Equation 1, where $Y_{ijb}^{t=1}$ is the survey outcome of interest for individual $i$ in cuadrante $j$ in block $b$ at endline ($t = 1$). For the meta analysis, we will weight by the inverse of the sampling probability at the cuadrante level. The relevant estimator for the meta-analysis is $\nu_m$

$$Y_{ijb}^{t=1} = \alpha + \nu_m T_i^m + \nu_f T_j^f + \gamma_b + \delta Y_{ijb}^{t=0} + u_{ijb} \tag{A1}$$

For the administrative data, we follow the estimator in Equation 8. Note that we collapse over the pre-treatment period to calculate $Y_{ijb}^{t=0}$ and over the post-treatment period to calculate $Y_{ijb}^{t=1}$. The relevant estimator for the meta-analysis is $\xi_m$.

$$Y_{jb}^{t=1} = \alpha + \xi_m T_j^m + \xi_f T_j^f + \gamma_b + \delta Y_{jb}^{t=0} + e_{jb} \tag{A2}$$

We cluster standard errors at the level of treatment assignment: the cuadrante.

### A.3 Meta-Analysis Outcomes and Coding

We replicate the outcomes from Blair et al. (2018) in the following tables. Where our questions diverge in content (not simply translation) we note the question text in column 3. We will aggregate the variables as prespecified in Blair et al. (2018).
Table A1: Variable Coding and Survey Questionnaire

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text Meta-PAP</th>
<th>Question text Colombia harmonization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIMARY OUTCOME FAMILY 1: SECURITY OF LIFE AND PROPERTY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1a. Negative effect on incidence of crime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>armedrob_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to theft in the past 12 months.</td>
</tr>
<tr>
<td>burglary_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Not asked because burglary is collapsed into the previous variable.</td>
</tr>
<tr>
<td>simpleassault_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to assault as riñas y golpes in the past 12 months.</td>
</tr>
<tr>
<td>other_any</td>
<td>In the past 6 months, were you or any member of your household a victim of any OTHER CRIME that we haven’t mentioned already?</td>
<td>Union of binary measures (not count) of vehicle theft and bribery/extortion (interpreted to be by gangs).</td>
</tr>
<tr>
<td>other_any_violent</td>
<td>Coded as other_any if other_any is a violent crime</td>
<td>[Omitted because 0 by construction]</td>
</tr>
<tr>
<td>crime_num</td>
<td>Sum of armedrob_num, burglary_num, simpleassault_num, other_any</td>
<td></td>
</tr>
<tr>
<td>violentcrime_num</td>
<td>Sum of armedrob_num, burglary_num, simpleassault_num, other_any_violent</td>
<td></td>
</tr>
<tr>
<td>carmedrob_num</td>
<td>[IF YES:] As far as you know, how many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to theft in the past 12 months.</td>
</tr>
<tr>
<td>cburglary_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Not asked because burglary is collapsed into the previous variable.</td>
</tr>
<tr>
<td>caggassault_num</td>
<td></td>
<td>Yes or no (not count). Referred to as riñas y golpes in the past 12 months.</td>
</tr>
<tr>
<td>csimpleassault_num</td>
<td></td>
<td>Omitted (not differentiated from above question).</td>
</tr>
<tr>
<td>csexual_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to the past 12 months.</td>
</tr>
<tr>
<td>cdomestic_phys_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to the past 12 months.</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
<td>Question text Colombia harmonization</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>cmurder_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to the past 12 months. Collected at endline and baseline (Meta-PAP is misspecified.)</td>
</tr>
<tr>
<td>cother_any</td>
<td>In the past 6 months, was anyone in this community a victim of any OTHER CRIME that we haven’t mentioned already?</td>
<td>Not asked because not used in Colombian victimization surveys. (Meta-PAP is misspecified.)</td>
</tr>
<tr>
<td></td>
<td>[IF YES:] What was the crime?</td>
<td>Omitted (not differentiated from above question).</td>
</tr>
<tr>
<td>cother_any.violent</td>
<td>Omitted (not differentiated from above question).</td>
<td></td>
</tr>
<tr>
<td>ccrime_num</td>
<td>Sum of carmedrob_num, cburglary_num, caggassault_num, csimpleassault_num, csexual_num, cdomestic_phys_num, cmurder_num, cother_any</td>
<td></td>
</tr>
<tr>
<td>cviolentcrime_num</td>
<td>Sum of carmedrob_num, caggassault_num, csimpleassault_num, csexual_num, cdomestic_phys_num, cmurder_num, cother_any.violent</td>
<td></td>
</tr>
<tr>
<td>crime_victim_idx</td>
<td>Index of crime_num, violentcrime_num, ccrime_num, cviolentcrime_num</td>
<td></td>
</tr>
<tr>
<td>aarmedrob_num</td>
<td>Number of reports of armed robbery in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>aburglary_num</td>
<td>Number of reports of burglary or theft in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>aaggravassault_num</td>
<td>Number of reports of aggravated assault in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>asimpleassault_num</td>
<td>Number of reports of simple assault in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>asexual_num</td>
<td>Number of reports of sexual abuse in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>adomestic_phys_num</td>
<td>Number of reports of domestic violence (physical) in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>adomestic_verbal_num</td>
<td>Number of reports of domestic violence (verbal) in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
<td>Question text Colombia harmonization</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>aland_num</td>
<td>Number of reports of land disputes in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>aland-violent_num</td>
<td>Number of reports of violent land disputes in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>amob_num</td>
<td>Number of reports of mob justice in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>ariot_num</td>
<td>Number of reports of riots in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>amurder_num</td>
<td>Number of reports of murder in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>aother_num</td>
<td>Number of reports of other crimes in community in past 6 months</td>
<td></td>
</tr>
<tr>
<td>acrime_num</td>
<td>Sum of aarmedrob_num, aburglary_num, aaggassault_num, asimpleassault_num, asexual_num, adomestic_phys_num, adomestic_verbal_num, aland_num, aland-violent_num, amob_num, ariot_num, amurder_num, aother_any</td>
<td></td>
</tr>
<tr>
<td>aviolentcrime_num</td>
<td>Sum of aarmedrob_num, aaggassault_num, asimpleassault_num, asexual_num, adomestic_phys_num, aland-violent_num, amob_num, ariot_num, amurder_num</td>
<td></td>
</tr>
</tbody>
</table>

4b. Positive effect on perceptions of safety (personal, land, and possessions)

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>fear-violent</td>
<td>How worried are you that you or a member of your household will be the victim of a VIOLENT CRIME in the coming year? [INCLUDING ARMED ROBBERY, ASSAULT WITH A WEAPON, ASSAULT WITHOUT A WEAPON, ETC.]</td>
<td>Refers to theft. Collected at endline and baseline (Meta-PAP is misspecified.)</td>
</tr>
<tr>
<td>fear-nonviolent</td>
<td>How worried are you that you or a member of your household will be the victim of a NON-VIOLENT CRIME in the coming year? [INCLUDING BURGLARY, THEFT, ETC.]</td>
<td>Not asked because it is collapsed into the previous variable.</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
<td>Question text Colombia harmonization</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>feared_walk</td>
<td>In the past 6 months, how often, if ever, have you or anyone in your family felt unsafe walking in your neighborhood?</td>
<td>Refers to level of safety.</td>
</tr>
<tr>
<td>future_insecurity_idx</td>
<td>Index of fear_violent, fear_nonviolent, feared_walk</td>
<td></td>
</tr>
</tbody>
</table>

**Primary Outcome Family 2: Citizen Perceptions of the Police**

2. Positive effect on citizen perceptions of police

<table>
<thead>
<tr>
<th>satis_trust</th>
<th>I generally trust the police. Agree or disagree?</th>
</tr>
</thead>
<tbody>
<tr>
<td>satis_general</td>
<td>I am satisfied with the service that the police provide. Agree or disagree?</td>
</tr>
<tr>
<td>satis_idx</td>
<td>Index of satis_trust and satis_general</td>
</tr>
</tbody>
</table>

**Primary Outcome Family 3: Police Perceptions of and Behaviors Toward Citizens**

3a. Positive effect on perceptions of police empathy, accountability, and abuse and corruption concerns

<table>
<thead>
<tr>
<th>empathy_complaints</th>
<th>When people complain about the police, they usually have a good reason. Agree or disagree?</th>
</tr>
</thead>
<tbody>
<tr>
<td>empathy_reports</td>
<td>Most things that people report to the police are worth taking seriously. Agree or disagree?</td>
</tr>
<tr>
<td>empathy_idx</td>
<td>Index of empathy_complaints, empathy_reports</td>
</tr>
<tr>
<td>account_pol_matter</td>
<td>The police leadership takes citizen complaints about officers seriously. Agree or disagree?</td>
</tr>
<tr>
<td>hypothetical2_punishmen</td>
<td>If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?</td>
</tr>
<tr>
<td>hypothetical2_reportself</td>
<td>Do you think YOU would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>hypothetical2_reportoth</td>
<td>Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>hypothetical3_punishment</td>
<td>If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>hypothetical3_reportself</td>
<td>Do you think YOU would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>hypothetical3_reportothers</td>
<td>Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>hypothetical5_punishment</td>
<td>If an officer in your agency engaged in this behavior and was discovered doing so, what if any discipline do YOU think WILL follow?</td>
</tr>
<tr>
<td>hypothetical5_reportself</td>
<td>Do you think YOU would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>hypothetical5_reportothers</td>
<td>Do you think MOST POLICE OFFICERS would report a fellow police officer who engaged in this behavior?</td>
</tr>
<tr>
<td>accountability_idx</td>
<td>Index of account.pol_matter, hypothetical2_punishment, hypothetical2_reportself, hypothetical2_reportothers, hypothetical3_punishment, hypothetical3_reportself, hypothetical3_reportothers, hypothetical5_punishment, hypothetical5_reportself, hypothetical5_reportothers</td>
</tr>
<tr>
<td>hypothetical5_abusself</td>
<td>Do you consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>hypothetical5_abuseother</td>
<td>Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>abuse_idx</td>
<td>Index of hypothetical5_abusself, hypothetical5_abuseother</td>
</tr>
<tr>
<td>hypothetical2_corruptself</td>
<td>Do you consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>hypothetical2_corruptothers</td>
<td>Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>hypothetical3_corruptself</td>
<td>Do you consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>hypothetical3_corruptother</td>
<td>Do MOST POLICE OFFICERS consider this behavior to be serious misconduct?</td>
</tr>
<tr>
<td>corrupt_idx</td>
<td>Index of hypothetical2_corruptself, hypothetical2_corruptother, hypothetical3_corruptself, hypothetical3_corruptother</td>
</tr>
<tr>
<td>officer_attitude_idx</td>
<td>Index of corrupt_idx, abuse_idx, accountability_idx, empathy_idx</td>
</tr>
</tbody>
</table>

3b. Negative effect reporting of police abuse and bribery

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>policeabuse_verbal_any</td>
<td>Besides any incidents of physical abuse, in the past 6 months, have you ever witnessed or heard about police officers VERBALLY ABUSING people from your community? [INCLUDING SHOUTING, CUSSING, ETC.] This includes verbal abuse against you or someone in your family.</td>
<td>Refers to the past 12 months.</td>
</tr>
<tr>
<td>policeabuse_phys_any</td>
<td>In the past 6 months, have you ever witnessed or heard about police officers PHYSICALLY ABUSING people from your community? [INCLUDING PUSHING, SLAPPING, PUNCHING, KICKING, CHOKING, ETC.]</td>
<td>Refers to the past 12 months.</td>
</tr>
<tr>
<td>policeabuse_verbal_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to theft in the past 12 months.</td>
</tr>
<tr>
<td>policeabuse_phys_num</td>
<td>[IF YES:] How many times did this happen in the past 6 months?</td>
<td>Yes or no (not count); refers to theft in the past 12 months.</td>
</tr>
<tr>
<td>policeabuse_num</td>
<td>Sum of number of incidents of verbal (policeabuse_verbal_num) or physical abuse (policeabuse_phys_num) by police officers in the past 6 months</td>
<td></td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
<td>Question text Colombia harmonization</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>policeabuse_verbal_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
<td></td>
</tr>
<tr>
<td>policeabuse_phys_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
<td></td>
</tr>
<tr>
<td>policeabuse_report</td>
<td>Dummy for any reporting of verbal (policeabuse_verbal_report) or physical abuse (policeabuse_phys_report) by police officers in the past 6 months</td>
<td></td>
</tr>
<tr>
<td>bribe_freq</td>
<td>How many times in the past 6 months have you made an unofficial payment to the police? Refers to the past 12 months. Only collected at endline.</td>
<td></td>
</tr>
<tr>
<td>bribe_amt</td>
<td>[IF ANY:] The last time you made an unofficial payment to the police, how much was it? Only collected at endline.</td>
<td></td>
</tr>
<tr>
<td>police_abuse_idx</td>
<td>Index of policeabuse_any, policeabuse_num, policeabuse_report, bribe_freq, bribe_amt</td>
<td></td>
</tr>
</tbody>
</table>

**Primary Outcome Family 4: Behavioral Cooperation of Citizens with the Police**

**4a. Positive effect on reporting of crime victimization**

**Administrative data**

<table>
<thead>
<tr>
<th>acrime_hline</th>
<th>ADMIN: Total number of reports of crimes to hotline</th>
</tr>
</thead>
<tbody>
<tr>
<td>aviolent_hline</td>
<td>ADMIN: Number of reports of violent crimes to hotline</td>
</tr>
<tr>
<td>anonviolent_hline</td>
<td>ADMIN: Number of reports of non-violent crimes to hotline</td>
</tr>
<tr>
<td>acrime_station</td>
<td>ADMIN: Total number of reports of crimes to nearest police station</td>
</tr>
<tr>
<td>aviolent_station</td>
<td>ADMIN: Number of reports of violent crimes to nearest police station</td>
</tr>
<tr>
<td>anonviolent_station</td>
<td>ADMIN: Number of reports of non-violent crimes to nearest police station</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>aburglary_hline</td>
<td>ADMIN: Number of reports of burglary to hotline</td>
</tr>
<tr>
<td>aarmedrob_hline</td>
<td>ADMIN: Number of reports of armed robbery to hotline</td>
</tr>
<tr>
<td>arape_hline</td>
<td>ADMIN: Number of reports of rape to hotline</td>
</tr>
<tr>
<td>amurder_hline</td>
<td>ADMIN: Number of reports of murder to hotline</td>
</tr>
<tr>
<td>asimpleassault_hline</td>
<td>ADMIN: Number of reports of simple assault to hotline</td>
</tr>
<tr>
<td>aaggassault_hline</td>
<td>ADMIN: Number of reports of aggravated assault to hotline</td>
</tr>
<tr>
<td>atheft_hline</td>
<td>ADMIN: Number of reports of theft to hotline</td>
</tr>
<tr>
<td>aburglary_station</td>
<td>ADMIN: Number of reports of burglary to nearest police station</td>
</tr>
<tr>
<td>aarmedrob_station</td>
<td>ADMIN: Number of reports of armed robbery to nearest police station</td>
</tr>
<tr>
<td>arape_station</td>
<td>ADMIN: Number of reports of rape to nearest police station</td>
</tr>
<tr>
<td>amurder_station</td>
<td>ADMIN: Number of reports of murder to nearest police station</td>
</tr>
<tr>
<td>asimpleassault_station</td>
<td>ADMIN: Number of reports of simple assault to nearest police station</td>
</tr>
<tr>
<td>aaggassault_station</td>
<td>ADMIN: Number of reports of aggravated assault to nearest police station</td>
</tr>
<tr>
<td>atheft_station</td>
<td>ADMIN: Number of reports of theft to nearest police station</td>
</tr>
<tr>
<td>Actual crime (survey)</td>
<td></td>
</tr>
<tr>
<td>armedrob_report</td>
<td>Where did you report this case? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>burglary_report</td>
<td>Where did you report this case? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>simpleassault_report</td>
<td>Where did you report this case? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>other_report</td>
<td>Where did you report this case? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>other_report_violent</td>
<td>Coded as other_report if other_any is a violent crime</td>
</tr>
<tr>
<td>violentcrime_report_num</td>
<td>Sum of armedrob_report, burglary_report, simpleassault_report, other_report_violent</td>
</tr>
<tr>
<td>carmedrob_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>cburglary_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>caggassault_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>csimpleassault_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>csexual_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>cdomestic_phys_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>cmurder_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>cother_report</td>
<td>To the best of your knowledge, was this incident reported to anyone? [SELECT ALL THAT APPLY]</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>

**Hypothetical crime (survey)**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>burglaryres</td>
<td>If there’s a BURGLARY in your community, who you would most like to resolve the situation? [DO NOT READ OPTIONS]</td>
<td>Refers to theft; where to report.</td>
</tr>
<tr>
<td>dviolres</td>
<td>If a MAN BEAT HIS WOMAN in your community, who you would most like to resolve the situation? [DO NOT READ OPTIONS]</td>
<td>Refers to where to report.</td>
</tr>
<tr>
<td>armedrobres</td>
<td>If there’s an ARMED ROBBERY in your community, who you would most like to resolve the situation? [DO NOT READ OPTIONS]</td>
<td>Collapsed with theft.</td>
</tr>
<tr>
<td>crimeres_idx</td>
<td>Index of burglaryres, dviolres, and armedrobres</td>
<td></td>
</tr>
</tbody>
</table>

**4b. Positive effect on reporting of crime prevention tips**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>atips_hline</td>
<td>ADMIN: Number of crime prevention tips reported via hotline (if available in both T and C locations)</td>
<td></td>
</tr>
<tr>
<td>atips_box</td>
<td>ADMIN: Number of crime prevention tips reported via comment boxes (if available in both T and C locations)</td>
<td></td>
</tr>
</tbody>
</table>
### Variable name

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text Meta-PAP</th>
<th>Question text Colombia harmonization</th>
</tr>
</thead>
<tbody>
<tr>
<td>contact_pol_susp_activ</td>
<td>In the past 6 months, have you ever contacted the police to alert them to suspicious or criminal activity in your community?</td>
<td>In the past 6 months, have you ever given information to the police to assist with an investigation?</td>
</tr>
</tbody>
</table>

### 4c. Positive effect on reporting of victimization by the police

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
</tr>
</thead>
<tbody>
<tr>
<td>apolvtm_hline</td>
<td>ADMIN: Number of incidents of victimization by the police reported via hotline (if available in both T and C locations)</td>
</tr>
<tr>
<td>apolvtm_cmtbox</td>
<td>ADMIN: Number of incidents of victimization by the police reported via comment boxes (if available in both T and C locations)</td>
</tr>
<tr>
<td>apolvtm_station</td>
<td>ADMIN: Number of incidents of victimization by the police reported to nearest station</td>
</tr>
</tbody>
</table>

**Reporting of victimization by the police (hypothetical)**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
</tr>
</thead>
<tbody>
<tr>
<td>dutydrink_report</td>
<td>Suppose you see a uniformed police officer drinking alcohol in your community. How likely would you be to report that situation?</td>
</tr>
<tr>
<td>policebeating_report</td>
<td>Suppose you see a group of officers unjustifiably beating someone in your community. How likely would you be to report that situation?</td>
</tr>
</tbody>
</table>

Omitted because officers often wear uniforms off-duty so distinguishing on-duty drinking is difficult.

### Mechanism Family 1: Perceived Cost to Citizens Cooperating with the Police

#### M1a. Positive effect on beliefs about police intentions

**Perceptions of police intentions (case management)**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text</th>
</tr>
</thead>
<tbody>
<tr>
<td>polcaseserious</td>
<td>The police will take the case seriously and investigate. Agree or disagree?</td>
</tr>
<tr>
<td>polcasefair</td>
<td>The police will be fair to both complainant and defendant in the investigation. Agree or disagree?</td>
</tr>
</tbody>
</table>

Refer to handling the case fairly, rather than the investigation, which are not conducted by the police but rather the public prosecution service.

**Perceptions of police intentions (general)**
<table>
<thead>
<tr>
<th>Variable name</th>
<th>Question text Meta-PAP</th>
<th>Question text Colombia harmonization</th>
</tr>
</thead>
<tbody>
<tr>
<td>polint_corrupt</td>
<td>The police are corrupt. Agree or disagree?</td>
<td></td>
</tr>
<tr>
<td>polint_quality</td>
<td>The police provide the same quality of service to all citizens. Agree or disagree?</td>
<td></td>
</tr>
<tr>
<td><strong>M1b. Positive effect on knowledge of criminal justice system</strong></td>
<td></td>
<td>Only collected at endline.</td>
</tr>
<tr>
<td>know LAW suspect</td>
<td>If you see a dead body lying in the street and you report it to the police, [COUNTRY] law says the police must hold you as a suspect. True or false?</td>
<td></td>
</tr>
<tr>
<td>know LAW lawyer</td>
<td>If you take your case to court and you don’t have money to pay a lawyer, [COUNTRY] law says the government must provide a lawyer for you. True or false?</td>
<td></td>
</tr>
<tr>
<td>know LAW fees</td>
<td>If you take a case to the police, [COUNTRY] law says the police can charge a fee to register the case. True or false?</td>
<td></td>
</tr>
<tr>
<td>know LAW vaw</td>
<td>According to [COUNTRY] law, it is a crime to beat one’s wife. True or false?</td>
<td></td>
</tr>
<tr>
<td>know report followup</td>
<td>If a crime is reported to the police using the hotline, an officer must follow up with the complainant in person in order for the crime to be recorded by the police. True or False? [ENUMERATOR: IS RESPONDENT CORRECT?]</td>
<td></td>
</tr>
<tr>
<td>know report station</td>
<td>Do you know where the nearest police station is? [ENUMERATOR: IS RESPONDENT CORRECT?]</td>
<td></td>
</tr>
<tr>
<td><strong>M1c. Positive effect on norms of citizens cooperation with police</strong></td>
<td></td>
<td>Only collected at endline.</td>
</tr>
<tr>
<td>reportnorm_theft</td>
<td>If there is a BURGLARY in your community, people can get angry if you take it to the police. Agree or disagree?</td>
<td></td>
</tr>
<tr>
<td>reportnorm_abuse</td>
<td>If a MAN BEATS HIS WIFE in your community, people can get angry if you take it to the police. Agree or disagree?</td>
<td></td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
<td>Question text Colombia harmonization</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>obeynorm</td>
<td>You should do what the police tell you to do even when you do not understand the reasons for their decisions. Agree or disagree?</td>
<td>Only collected at endline.</td>
</tr>
</tbody>
</table>

**Mechanism Family 2: Perceived Returns to Citizens Cooperating with the Police**

**M2a. Positive effect on beliefs about police capacity**

<table>
<thead>
<tr>
<th>polcap_timely</th>
<th>The police have the capacity to respond to incidents of crime in a timely manner. Agree or disagree?</th>
</tr>
</thead>
<tbody>
<tr>
<td>polcap_investigate</td>
<td>The police have the capacity to investigate crimes and gather evidence effectively. Agree or disagree?</td>
</tr>
</tbody>
</table>

**M2b. Positive effect on perceptions of responsiveness to citizen feedback**

| responsive_act | The police act upon citizen comments and complaints about security in my community. Agree or disagree? |

**Secondary Outcome Family 1: Increase in Trust in the State**

**S1. Positive effect on trust in the state**

| legit_trust | How much do you trust the government of [COUNTRY]?

**Secondary Outcome Family 2: Increase in Communal Trust**

**S2. Positive effect on communal trust**

| trust_community | Most people in my community can be trusted. Agree or disagree? |

**Compliance with Treatment: Citizen Interactions with Police**

**C. Positive effect on rate of citizen interactions with police**

<table>
<thead>
<tr>
<th>ameeting_count</th>
<th>ADMIN: Attendance sheets at community meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>compliance_patrol</td>
<td>About how often do you see police officers patrolling your area on FOOT?</td>
</tr>
<tr>
<td>compliance_freq</td>
<td>About how often do you see police officers patrolling your area while in a vehicle or on a motorbike?</td>
</tr>
<tr>
<td>Variable name</td>
<td>Question text Meta-PAP</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>compliance_meeting</td>
<td>In the past 6 months, have you HEARD ABOUT, SEEN, OR ATTENDED community meetings with police officers taking place in your area?</td>
</tr>
</tbody>
</table>
Figure A1: Flyers with information about the 123 Line

A.4 Additional tables and figures
Figure A2: Flyers with information about the Seguridad en Linea platform
A.5 Meeting Protocol

Facilitator:
1. Introduce self
2. General introduction to the meeting
3. Clarify that the meeting is a space of respect
4. Attendance sheet + explanation of the Whatsapp group

Police officers:
1. Introduce the officers (names, ranks, cell phone numbers) (1 minute)
2. Name of the station commander (who serves as supervisor of the officers for the cuadrante/quadrant) and cell phone number (1 minute)
3. Services the police offer the community (3 minutes)
   (a) Name the services
   (b) What the officers do
4. Characterization of the cuadrante (police beat): territory, number of officers assigned to the cuadrante, shifts, etc. (2 minutes)
5. Identify local police stations (1 minute)
6. Review how to report crimes (1 minute)
   (a) Line 123: emergency reports
   (b) Segurida en Línea: anonymous reports
   (c) To report: commercial theft, personal theft, residential theft, computer crime, child pornography, extortion
7. Review activities and interventions implemented in the beat during the past weeks
8. Distribute pamphlets, if applicable
9. Dialogue with participants
   (a) Questions for patrolmen
   (b) Patrolmen respond and explain what problems they can address directly and which ones are the responsibility of another entity
10. Agreement between participants and patrolmen
    (a) Come to an agreement over objectives for the next meeting
    (b) Identify concrete measures they can take to reach those objectives
11. Participants and patrolmen sign the agreement
12. Information about the next meeting (expected date, time, and place)
Table A2: Balance tests

<table>
<thead>
<tr>
<th></th>
<th>Meetings</th>
<th>Leaflet</th>
<th>Community &amp; Leaflet</th>
<th>Control Mean</th>
<th>Control Std. dev.</th>
<th>p-value for dif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>69.701</td>
<td>-582.57</td>
<td>-352.08</td>
<td>-221.56</td>
<td>-569.71</td>
<td>0.87</td>
</tr>
<tr>
<td>Households</td>
<td>13.529</td>
<td>-155.04</td>
<td>-82.425</td>
<td>-156.01</td>
<td>-156.63</td>
<td>0.92</td>
</tr>
<tr>
<td>People per household</td>
<td>0.06</td>
<td>-0.055</td>
<td>-0.034</td>
<td>-0.032</td>
<td>-0.050</td>
<td>0.48</td>
</tr>
<tr>
<td>Share of rented homes</td>
<td>0.002</td>
<td>-0.004</td>
<td>-0.002</td>
<td>0.002</td>
<td>-0.004</td>
<td>0.27</td>
</tr>
<tr>
<td>Avg. bedrooms per household</td>
<td>-0.027</td>
<td>-0.052</td>
<td>0.071</td>
<td>-0.054</td>
<td>-0.009</td>
<td>0.28</td>
</tr>
<tr>
<td>Share of overcrowding households</td>
<td>0.009</td>
<td>-0.009</td>
<td>0.008</td>
<td>-0.010</td>
<td>0.007</td>
<td>0.67</td>
</tr>
<tr>
<td>Household shares cooking with electricity</td>
<td>0.001</td>
<td>-0.004</td>
<td>-0.003</td>
<td>0.001</td>
<td>-0.005</td>
<td>0.49</td>
</tr>
<tr>
<td>Household shares cooking with piped gas</td>
<td>0.004</td>
<td>-0.012</td>
<td>-0.01</td>
<td>0.004</td>
<td>-0.014</td>
<td>0.49</td>
</tr>
<tr>
<td>Household shares with fridge or TV</td>
<td>0.004</td>
<td>-0.005</td>
<td>-0.001</td>
<td>0.004</td>
<td>-0.006</td>
<td>0.67</td>
</tr>
<tr>
<td>Household shares with computer</td>
<td>0.004</td>
<td>-0.008</td>
<td>-0.006</td>
<td>0.003</td>
<td>-0.010</td>
<td>0.51</td>
</tr>
<tr>
<td>Household shares with motorcycle</td>
<td>0.005</td>
<td>-0.008</td>
<td>-0.006</td>
<td>0.005</td>
<td>-0.010</td>
<td>0.39</td>
</tr>
<tr>
<td>Household shares with landline</td>
<td>0.004</td>
<td>-0.014</td>
<td>-0.002</td>
<td>0.016</td>
<td>-0.012</td>
<td>0.43</td>
</tr>
<tr>
<td>Household shares with pipeline gas</td>
<td>-0.007</td>
<td>-0.017</td>
<td>-0.003</td>
<td>-0.019</td>
<td>-0.018</td>
<td>0.72</td>
</tr>
<tr>
<td>Employed per household</td>
<td>0.004</td>
<td>-0.020</td>
<td>0.005</td>
<td>-0.013</td>
<td>-0.020</td>
<td>0.83</td>
</tr>
<tr>
<td>Unemployed per household</td>
<td>0.001</td>
<td>-0.006</td>
<td>0</td>
<td>-0.005</td>
<td>-0.005</td>
<td>0.69</td>
</tr>
<tr>
<td>Retirees per household</td>
<td>0.001</td>
<td>-0.001</td>
<td>0.002</td>
<td>-0.001</td>
<td>0.001</td>
<td>0.17</td>
</tr>
<tr>
<td>Household shares with family living abroad</td>
<td>0</td>
<td>-0.004</td>
<td>0.003</td>
<td>-0.004</td>
<td>0.005</td>
<td>0.43</td>
</tr>
<tr>
<td>Share of males per household</td>
<td>-0.009</td>
<td>-0.005</td>
<td>-0.001</td>
<td>-0.008</td>
<td>-0.006</td>
<td>0.13</td>
</tr>
<tr>
<td>Share of females per household</td>
<td>0.002</td>
<td>-0.006</td>
<td>0.006</td>
<td>0</td>
<td>-0.007</td>
<td>0.55</td>
</tr>
<tr>
<td>Share of under-aged per household</td>
<td>0.002</td>
<td>-0.007</td>
<td>0.004</td>
<td>-0.007</td>
<td>0.24</td>
<td>0.53</td>
</tr>
<tr>
<td>Share of seniors per household</td>
<td>0.008</td>
<td>-0.009</td>
<td>-0.005</td>
<td>0.014</td>
<td>-0.010</td>
<td>0.15</td>
</tr>
<tr>
<td>Household shares with male head</td>
<td>-0.007</td>
<td>-0.007</td>
<td>0.005</td>
<td>-0.008</td>
<td>0.63</td>
<td>0.16</td>
</tr>
<tr>
<td>Household shares with single-male parent</td>
<td>-0.008</td>
<td>-0.005</td>
<td>-0.002</td>
<td>-0.005</td>
<td>-0.010**</td>
<td>0.13</td>
</tr>
<tr>
<td>Household shares with single-female parent</td>
<td>-0.003</td>
<td>-0.006</td>
<td>-0.002</td>
<td>-0.007</td>
<td>-0.006</td>
<td>0.69</td>
</tr>
<tr>
<td>Household shares w/o children at home</td>
<td>-0.01</td>
<td>-0.009</td>
<td>0.001</td>
<td>-0.007</td>
<td>-0.009</td>
<td>0.53</td>
</tr>
<tr>
<td>Household shares with university students</td>
<td>0.033</td>
<td>-0.041</td>
<td>-0.056</td>
<td>-0.004</td>
<td>2.8</td>
<td>0.12</td>
</tr>
<tr>
<td>Household head born in Colombia</td>
<td>-0.01</td>
<td>-0.009</td>
<td>0.003</td>
<td>-0.017</td>
<td>0.96</td>
<td>0.15</td>
</tr>
<tr>
<td>Household head born in Medellin</td>
<td>0.004</td>
<td>-0.012</td>
<td>-0.004</td>
<td>-0.02</td>
<td>0.39</td>
<td>0.94</td>
</tr>
<tr>
<td>Log of monthly rent</td>
<td>0.1</td>
<td>0.075</td>
<td>0.049</td>
<td>0.027</td>
<td>0.073</td>
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</tr>
<tr>
<td>Homicide rate</td>
<td>-5.493</td>
<td>-12.530</td>
<td>-16.499</td>
<td>-11.523</td>
<td>15.001</td>
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<tr>
<td>Theft rate</td>
<td>-4.739</td>
<td>-5.615</td>
<td>-6.461</td>
<td>-5.515</td>
<td>-4.83</td>
<td>0.25</td>
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<tr>
<td>Lagged homicide rate</td>
<td>3.053</td>
<td>-6.980</td>
<td>-1.413</td>
<td>-6.095</td>
<td>9.098</td>
<td>0.49</td>
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<tr>
<td>Lagged theft rate</td>
<td>-43.301</td>
<td>-40.045</td>
<td>-46.651</td>
<td>-40.743</td>
<td>-36.574</td>
<td>0.70</td>
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<tr>
<td>Second study treatment condition</td>
<td>0.034</td>
<td>-0.024</td>
<td>0.023</td>
<td>0.022</td>
<td>0.039*</td>
<td>0.34</td>
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<tr>
<td>Second study control condition</td>
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<td>-0.023</td>
<td>-0.034</td>
<td>-0.023</td>
<td>-0.019</td>
<td>0.52</td>
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