SEXUAL HARASSMENT IN PUBLIC SPACES AND POLICE PATROLS: EXPERIMENTAL EVIDENCE FROM URBAN INDIA*

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Abstract

We conduct a randomized controlled trial to evaluate the impact of an innovative police patrol program on sexual harassment in public spaces in Hyderabad, India. In collaboration with the Hyderabad City Police, we randomize exposure to police patrols and the visibility of officers by deploying both uniformed and undercover officers across 350 hotspots. To assess the effect, we implement a novel, high-frequency observation exercise to measure sexual harassment at these hotspots, where enumerators recorded all observed instances of sexual harassment and women's responses in real time. We find that although police patrols had no impact on overall street harassment, uniformed police patrols reduced severe forms of harassment (forceful touching, intimidation) by 27 percent and reduced the likelihood of women leaving the hotspot due to sexual harassment. We uncovered the underlying mechanisms and found that both police visibility and officers' attitudes toward sexual harassment are key to understanding its incidence.

Keywords: Street harassment, policing, social norms
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I Introduction

Sexual harassment in public spaces limits women's physical mobility, education choices, and labor force participation (Borker, 2024; Kondylis et al., 2020; Siddique, 2018; Chakraborty et al., 2018). More than half of all women worldwide have experienced street harassment in their lifetimes, and about 82 percent report avoiding certain areas due to harassment or the fear of it (ActionAid, 2016; Livingston, 2015). Despite its prevalence, research on street harassment is limited due to many challenges (Moser, 2012). Most importantly, street harassment is common and often socially accepted by many people, including perpetrators and first responders such as police officers, making the level of incidence a by-product of prevalent gender norms (Jayachandran, 2021). Additionally, it is extremely difficult to measure sexual harassment since it is rarely reported to the police, and available administrative data are prone to measurement error and reporting bias (Saguy and Rees, 2021; Boudreau et al., 2023; Dahl and Knepper, 2021).

To address these challenges, we conduct a cluster randomized controlled trial (RCT) to evaluate a novel program in Hyderabad, India, designed to address sexual harassment in public spaces. The program—Safety, Health and Environment Police Unit (SHE Teams)—uses hotspot-policing patrol to identify and penalize street harassment. SHE Teams serves about seven million people, making it one of the world's largest policing interventions to directly address sexual harassment in public spaces. We partnered with Hyderabad City Police (HCP) to design and implement the RCT, randomizing 350 harassment hotspots to exposure to SHE Teams patrolling in either uniforms or undercover. Originally, the program only used undercover officers; however, given the frequency and social tolerance of sexual harassment, the research team and HCP agreed to test visible policing as an alternative.

The intervention had three distinct treatment arms to examine the effectiveness of different street patrolling approaches. The first arm had SHE Teams officers patrolling in police uniform (100 hotspots), while the second arm had undercover SHE Teams officers patrolling in plain clothes (100 hotspots). The third arm was the control group, which was

not exposed to SHE Teams patrols (150 hotspots). In terms of frequency of exposure to the treatment, SHE Teams officers (uniformed and undercover) patrolled each treated hotspot for 15 to 20 minutes per day at least three times per week from September 2019 to March 2020.

Beyond studying the role of policing in addressing sexual harassment, our novel design enables us to understand the effects of police patrols and whether they stemmed from changes in behavior among citizens and perpetrators after observing police presence—a *deterrence effect*—or from the sanctioning and removal of criminals from the scene by police—an *incapacitation effect*. In particular, our intervention allows us to disentangle these effects since, by design, undercover police officers tend to have a larger incapacitation effect, moving discreetly to identify more harassment cases. In contrast, uniformed patrols are likely to have a larger deterrence effect as their presence is more visible, potentially altering the behavior of criminals and encouraging victims and bystanders to report incidents. This distinction is necessary to discern if visible police behavior is needed to deter criminals in environments of frequent street harassment, particularly in contexts where arresting all perpetrators is challenging, given the large number of cases and social tolerance toward harassment. At the same time, by making police visibility a key factor, the design allows us to study how officers' characteristics, such as attitudes toward harassment, impact outcomes when their behavior is observable by citizens.

To overcome key measurement challenges in the literature, we developed a novel observation-based measure of sexual harassment in public space. Female enumerators used their phones to record the number of harassment incidents and victims' responses in designated hotspots and spillover areas. Using the same protocol that HCP provided SHE Teams officers, we trained these enumerators to identify mild to severe cases of harassment. Mild harassment included unwelcome comments, catcalling, whistling, inappropriate gestures and facial expressions, taking photos without consent, and ogling. Severe harassment included stalking, forceful touching/groping, intimidation, indecent exposure, physical abuse, and abduction.[1] Our observational exercise addresses several challenges

[1]We made this distinction based on conversations with several Indian Police Service officers and the

in the literature associated with measurement, including stigma (enumerators recorded harassment that other women faced), reporting issues (these accounts were observed and not official, so there was no cost to reporting), and experimenter demand effects (the enumerators were unaware of the intervention). Moreover, SHE Teams officers were unaware of the enumerator observation exercise.

Using our observational measure of street harassment, we find that uniformed police patrols reduced severe forms of street harassment by 27 percent, which translates to 0.7 fewer women being victimized per week per hotspot. In particular, we find a large reduction in groping/touching and intimidation. In contrast, hotspots patrolled by undercover officers experienced no reduction in street harassment relative to the control group, despite the fact that undercover police issued more sanctions and warnings.

These results highlight the importance of police officer visibility in deterring perpetrators given the large number of harassment incidents. Consistent with our design, while undercover policing had larger incapacitation effects, only uniformed policing reduced severe harassment. Additionally, the incapacitation effects alone were too small (relative to the number of incidents) to account for the observed decline in street harassment. On average, officers sanctioned or warned 5–8 percent of sexual harassment incidents. These findings suggest that our effects stemmed not only from removing criminals from the scene but also from behavioral changes among offenders who changed their actions after encountering visible officers, leading to a decline in street harassment.[2]

Due to the drop in severe street harassment, we find that women changed their adaptive response to safety concerns. Using our observational measure, in hotspots with uniformed police patrols, women were 30 percent less likely to move elsewhere in response to harassment, indicating that lowering severe forms of harassment can ease the constraints on women's mobility. In particular, the intervention, by removing the onus of enforce-

Indian Penal Code (IPC), which also includes heinous offenses (e.g., rape) that are not observed in our data. For details, see Appendix Table A1.

[2]Although officers could only sanction a small share of incidents, their salient performance in uniformed hotspots could have changed perpetrators' behavior through learning that police now target sexual harassment. For example, at the moment of arrest, the uniformed officers told the public why and alerted citizens that SHE Teams were targeting street harassment.

ment from women and increasing sanctions, leads to a decrease in harassment along with an improvement in women's reactionary choices—choices that are costly to their daily lives.[3]

Next, to better understand the relationship between social acceptance of public sexual harassment and its incidence, we conducted surveys and lab experiments to collect individual measures of police officers' attitudes and performance regarding harassment as well as citizens' views of these crimes. In particular, we exploited the random composition of SHE Teams, which provided heterogeneity in team attitudes regarding harassment in the field. For the lab experiment data, we invited 354 HCP officers (including SHE Teams officers participating in our intervention) to attend a one-hour lab session at HCP headquarters. During this session, we showed each officer nine videos depicting sexual harassment and other types of crimes that mimicked real-life events that officers encounter on patrol. After each video, the officers answered a short survey related to their propensity to punish or tolerate these crimes.

Using the lab experiments and survey data, we highlight the critical role of police officers' attitudes in addressing sexual harassment. While visible policing proved effective in reducing severe forms of harassment, it fell short in addressing milder forms due to police officers' tolerance of such offenses and, thus, lack of action towards them. Our lab experiment results show that police officers were less likely to think that mild harassment should be addressed or punished relative to other offenses. Consequently, they had a lower willingness to sanction mild harassment offenses versus other types of crime, on average.

Consistent with these results, we find in the field that hotspots experienced a decrease in all types of sexual harassment when patrolled by uniformed officers with harsher attitudes toward harassment. However, we find no differential effect in hotspots where women had more progressive norms at baseline. These results suggest that the drop in severe harassment stemmed from deterrence due to police presence and punishment, while

[3]Note that in our context, officers can impose sanctions on perpetrators without requiring the victim's consent, which helps reduce the stigma associated with reporting incidents.

the absence of a similar decline in mild offenses likely resulted from greater police tolerance, resulting in fewer penalties for perpetrators. Furthermore, these findings indicate that officers' personal beliefs about harassment are intertwined with the implementation of the law. In particular, their attitudes significantly impact their performance and, consequently, the efficacy of policies aimed at combating crimes like sexual harassment.

We examine additional mechanisms through which street patrols might reduce severe harassment without impacting mild cases, but find no evidence supporting these mechanisms. Specifically, we rule out effects related to detection and reporting, and displacement to nearby areas. First, lab evidence shows that police officers could detect mild harassment even when it occurred quickly and in crowded areas. Second, when linking the exact location of reported crimes to hotspots, we do not find an increase in victims' harassment-related calls to police in treated hotspots. Third, we find suggestive evidence that police patrols neither displaced crime nor resulted in a substitution effect among different types of crimes. Finally, we find no evidence of changes in footfall in hotspots or nearby spillover areas.

Our findings have several policy implications and highlight the role of visible police presence and action in reducing frequent public sexual crimes and in effectively allocating limited police resources. Although undercover officers increased notices, warnings, and arrests for harassment incidents, the incapacitation effects alone were too small to explain the decrease in harassment, indicating that the primary impact of SHE Teams stemmed from deterrence. In addition, the results illustrate the challenges in addressing urban sexual harassment, especially milder forms, due to officers' attitudes toward these crimes. Therefore, for any such intervention to succeed, it is crucial to address the social attitudes that influence police behavior.

This paper contributes to several strands of literature, including the nascent literature on sexual harassment. Recent novel research has focused on the effects of gendered crime in indoor locations such as workplaces, universities, and households (Bindler, Ketel and Hjalmarsson, 2020; Lindo, Siminski and Swensen, 2018; Folke and Rickne, 2020; Sharma, 2023; Adams-Prassl et al., 2022). We complement this work in several ways. First, we

focus on sexual harassment in public spaces—an area with limited evidence (Hardt et al., 2023; Borker, 2022). This distinction makes it a substantially different problem to study, as street harassment is typically socially tolerated, often committed by strangers, and occurs between parties without any institutional relationship. Second, we develop a new measure of sexual harassment based on observations by enumerators in the field, providing real-time insights into street harassment and women's responses, free from reporting biases. Third, we provide experimental evidence on how sexual harassment affects women's responses, overcoming endogeneity concerns associated with the location and timing of harassment incidents. Our findings show that harassment negatively affects women's behavior during commutes. Reducing constraints on women's physical mobility is a key outcome, as recent evidence shows it may impact female labor force participation (Cheema et al., 2019; Field and Vyborny, 2022). Additionally, while most of the previous research has focused on the consequences of street harassment, we shed light on the contributing factors, improving our understanding of effective interventions. Specifically, we explore a policy that targets perpetrators while minimizing the reporting burden on victims.

More broadly, our findings also complement the literature on policing and crime, particularly in terms of the role that officer attributes play in improving job performance. Previous research has shown the effectiveness of police patrols in reducing crime in assigned areas (Blattman et al., 2021; Di Tella and Schargrodsky, 2004; Draca, Machin and Witt, 2011), with scholars attributing this success to the lessons learned by citizens from encounters with the police and the updated beliefs of perpetrators regarding the probability of detection and punishment (Banerjee et al., 2019). In line with these results, we find that visible police actions taught citizens that law enforcement can actively punish sexual harassment. Furthermore, we contribute novel evidence about the effectiveness of different types of policing, focusing on police attributes (Amaral, Bhalotra and Prakash, 2021; Ba et al., 2021; Dube, Jo MacArthur and Shah, 2023; Sukhtankar, Kruks-Wisner and Mangla, 2022; Sviatschi and Trako, 2024). We examine the under-researched area of street harassment and consider the impact of varying police presence, including officer visibility and attitudes—factors that have not been previously considered in the literature. These

features are important since qualitative evidence suggests that officers' attitudes toward harassment are intertwined with their job performance (Dhillon and Bakaya, 2014).

II Background

II.A Street Harassment in Hyderabad

Street harassment is a major problem in urban centers worldwide, including Hyderabad. According to our baseline survey of 8,264 women surveyed in public spaces across the city, over 30 percent had experienced some form of street harassment in the last month.[4] Of these women, 74 percent had received verbal threats, 73 percent had been stalked, 39 percent had received unwelcome comments or been catcalled, and 24 percent had been stalked. These incidents affect women's perceptions of safety, with only 25 percent of those surveyed reporting that they felt safe when traveling through the city after 4:00 p.m. In response to this harassment, 87 percent of women reported taking precautionary measures, including traveling in a group, dressing modestly, and avoiding certain areas.

While sexual harassment is frequent in Hyderabad, it constitutes a crime that is legally penalizable. Sexual harassment offenses are covered and penalties are governed not only by relevant legislation of the IPC but also by the HCP Act of 2011. Appendix Table A1 presents sexual harassment observed in the data by mild and severe categories, along with the corresponding IPC sections and the punishments associated with them.

II.B The SHE Teams Program

In 2014, HCP launched SHE Teams in response to growing concerns about women's safety following national public debate sparked by the notorious 2012 gang rape and murder of a young woman in Delhi. The main goal was to improve women's safety in public through a zero-tolerance approach to sexual harassment.

[4]Only 2 percent reported property offenses in public spaces in the previous month, including the snatching of items such as chains, purses, and phones, as well as pickpocketing/theft.

SHE Teams comprises police officers from HCP and are assigned to the task force for approximately six months.[5] Once they begin their assignment, they receive formal training on street harassment, how to identify and respond to it, the penalties for these crimes, and their patrol duties. At SHE Teams headquarters, officers track police report data, social media, and calls made to HCP's "Dial 100" helpline using a dashboard system, which they also use to maintain an offender registry. Based on these data, officers conduct patrols at locations where harassment typically occurs, such as bus stops, colleges, and shopping malls. Patrols are composed of teams of three officers, including one female officer and two male officers, where one is a senior officer. Before our intervention, SHE Teams had been operating on a small scale and at low intensity.[6]

SHE Teams uses two tools, at officers' discretion, depending on the incident's severity and the evidence available to officers on patrol: sanctions and warnings. For red-handed cases, perpetrators are punished according to the offense type. For example, if caught stalking a woman with sufficient evidence, such as recordings or a victim's complaint, the perpetrator is arrested and eventually taken to court. Conversely, if the evidence is insufficient to stand in court, the officer issues a notice and warning to the offender. Importantly, once a warning or sanction is issued, police officers must immediately take the perpetrator to SHE Teams headquarters.

Before we partnered with HCP, SHE Teams primarily used undercover officers for patrols across different hotspots. HCP believed this approach effectively reduced sexual harassment by discreetly detecting and sanctioning perpetrators. Its policy aimed to maximize arrests and remove as many sexual offenders from the streets as possible. Consequently, to avoid compromising their undercover status during operations, these officers were instructed to keep their actions inconspicuous. The main logic behind this approach was to incapacitate all key perpetrators without the public knowing about the police's undercover roles, under the assumption that only a few individuals were responsible for most incidents.

[5] HCP operates under a police commissionerate system, headed by a police commissioner from the Indian Police Service.

[6] In 2018, this force consisted of 10 patrol teams.

In 2018, due to growing national interest in SHE Teams and HCP's plan to expand the program, the city sought to understand the effects of the program before scaling up. To this end, we designed our study to evaluate it at scale and test how the visibility of patrolling officers and their tolerance toward sexual harassment affected its incidence. Our objective was to determine which type of patrol was most effective and to explore how interactions between police, citizens, and offenders influenced harassment rates. Given the social acceptance and frequency of these crimes, we also tested whether visible policing could deter potential perpetrators. Specifically, we evaluated whether the visibility of officers' actions could reduce harassment or if undercover operations that focus on making arrests were more effective. If only a few individuals commit most incidents, undercover policing focused on arrests might be more effective; however, if many are involved, broader police efforts might be needed for significant deterrence.

To explore these dynamics, we varied the visibility of police officers by including SHE Teams officers wearing HCP uniforms. During these patrols, uniformed SHE Team officers patrolling hotspots engaged in key activities, such as maintaining a visible presence, recording incidents for evidence, confronting and publicly sanctioning perpetrators, and issuing informal warnings to deter future offenses.

III Experimental Design

This section describes the randomized experiment, the data collection process, and study protocols and considerations. We then outline our empirical model and present results on randomization, balance, and compliance.

III.A Intervention and Design

We use a clustered randomized experiment to identify the effects of uniformed and undercover policing on observed street harassment, with HCP identifying 350 hotspots and 700 adjacent areas located within a 200m and 500m radius of hotspots. The hotspots, under HCP's jurisdiction, meet two criteria: high rates of reported street harassment and no

prior targeting by the program. Importantly, they covered the universe of street harassment hotspots that were not previously covered by SHE Teams.

We randomized the 350 hotspots into three groups. The first group consisted of 100 hotspots patrolled by SHE Teams officers wearing HCP uniforms. The second group consisted of 100 randomly allocated hotspots patrolled by undercover SHE Teams officers in plain clothes. The third group was the control group, comprising 150 randomly allocated hotspots with no patrols.

During the 24 weeks of the study period, SHE Teams operated with 72 officers and 17 patrol vehicles. Every Friday, officers received their daily shift schedules for the following week, which were planned by the SHE Teams coordinator and the research team a week ahead of the scheduled patrol. Upon arriving at the SHE Teams office every day, officers were allocated to a team, and a team leader was assigned based on rank. Individual officers were randomly allocated to teams by day and shift (i.e., morning, afternoon, and evening), and received the list of areas to patrol that day. Importantly, the same officers could alternate across arms, meaning they could be in undercover hotspots one week but in uniformed hotspots another week.

Police patrolling occurred across treated hotspots between 8:00 a.m. and 8:00 p.m., with the 24 teams operating during morning or afternoon shifts. Each team spent 15–20 minutes at a given hotspot, which were patrolled, on average, three times per week.[7] On average, police patrolled each hotspot for 45 minutes per week (compared to a baseline of zero). Patrolling is exogenous to the time or day of the week.

While the intervention consisted of only three 15-minute visits per week, the daily commutes of citizens through these hotspots may increase the likelihood that they will learn that the police are now at the hotspots targeting sexual harassment. Moreover, the random allocation of police officers to various dates and shifts could increase the deterrence effect, as it is unpredictable when SHE Teams would be present. Appendix Fig-

[7]SHE Teams followed a standard mode of police patrolling (Braga et al., 2019), similar to those implemented in other settings such as the United States (Telep, Mitchell and Weisburd, 2014) and the United Kingdom (Blanes i Vidal and Mastrobuoni, 2018). For a review, see Braga et al. (2019).

ures A1 and A2 show that police officers patrolled an average of six days a week, and their patrolling was similarly distributed across different shifts.

Finally, it is important to note that previous studies on similar 15-minute police patrolling interventions in Colombia, the United States, and the United Kingdom have shown significant crime deterrence effects (Collazos et al., 2021; Blattman et al., 2021; Telep, Mitchell and Weisburd, 2014; Bland et al., 2021). Notably, Koper (1995) found that in Minneapolis, the optimal patrol time for reducing crime and disorderly behavior in hotspots is 10–15 minutes, with diminishing returns beyond this duration. These studies, though not specifically targeting harassment, show that brief, regular police presence can effectively reduce various types of crime, at least in the assigned locations.[8]

III.B Randomization

To account for key factors that affect the degree of street harassment in Hyderabad, we stratify the randomization across the 350 hotspots and base the stratification on two criteria that best characterize a public space: footfall (the observed number of people at a location) and type of public space. First, we measure footfall using data from our Enumerator Observation Survey (EOS) and baseline women's survey (detailed in Section III.C). Hotspots are categorized as normal, large and very large based on footfall.[9] A footfall of fewer than 30 individuals is considered low, 30–150 is medium, 150–400 is high, and anything above 400 is very high. Second, for the type of public space, we use four categories: educational hotspots, general hotspots (in or near markets and temples), residential hotspots, and commuter hotspots (Appendix Table A2 provides an overview of the hotspots by the categories used for stratification).

We completed the randomization using 2,000 iterations over 57 key variables from the

[8]The evidence on crime displacement is mixed as it depends on the type of crime, location, and policing strategies (Banerjee et al., 2019). Moreover, many studies lack statistical power to detect spillovers. One of the largest-scale interventions in Bogota finds displacement effects on property crimes (Blattman et al., 2021).

[9]This categorization was based on the average classification by enumerators when conducting the baseline women's survey and the EOS. The surveys were conducted concurrently with the patrols, so the categorization accurately reflects the average footfall activity in each area.

baseline survey, which includes women's observable characteristics such as age, education level, occupation, marital status, transportation mode, victimization rates, perception of safety, and precautionary measures. Appendix Table A3 shows that the two treatment groups and the control arm are balanced across these characteristics. Additionally, before the intervention, the treatment and control hotspots exhibited similar patterns in harassment, safety, and hotspot time-varying characteristics, including footfall.

The randomization also determined the treatment exposure condition for spillover areas located within a 200m and 500m radius from the hotspots. The spillover areas are public spaces that mimic hotspot characteristics in that they are either busy markets, transit stops (including both bus stops and metro stops), or educational institutions like schools or colleges. Spillover areas were selected at baseline and visited during the intervention period. Appendix Tables A4 and A5 show that the spillover areas are comparable across treatment and control groups, noting that victimization rates are smaller in spillover areas as our 350 hotspots were the universe of hotspots at the time of the intervention.[10]

III.C Data

Our study relies on four datasets: a baseline women's survey, the EOS, police report data, and administrative data on police patrols and performance metrics. We also use data from our own surveys and lab experiments with officers.

Baseline Women's Survey. We surveyed 8,264 women across the 350 hotspots in our study, aiming to survey 25 women per hotspot. Women in the hotspots were randomly selected by enumerators to participate in a 15-minute survey conducted onsite. The survey followed sampling procedures typically used in commuter surveys (Sridhar and Nayka, 2022), where enumerators are instructed to survey participants in a way that would allow

[10] Appendix Table A6 shows that our selected spillover areas, within 200m and 500m radii, are representative of other potential public spaces. In particular, we mapped public spaces such as educational institutions, transit stops, and markets using Open Street Maps, thereby ensuring they matched three of the four hotspot strata, in terms of type of public spaces. Based on this mapping, there are, on average, 1.5 potential spaces within the 200m radius and 7.1 within the 500m radius. We use Facebook data on male and female (15–49 years) density and find no significant difference between the spillover areas in our sample and other potential spaces.

for some privacy. Surveys were not incentivized, and we sought informed consent from participants. In addition, participants were informed before the start of data collection that they would be asked questions about gender-based violence, and we partnered with BHAROSA to inform them about the use of support services in case they needed them.[11] The total sampling was determined based on power calculations required to identify effects on our main primary outcomes.

This survey revealed two key insights into the impact of harassment on women's lives. First, the cost of reporting harassment is high. When asked about potential reasons for not reporting incidents, 50 percent of women said they were too common, and the police would not sanction them. The other main reasons included preferring to talk about the incident with close friends (14 percent), not wanting anyone to know about the incident (7 percent), and, if they report, not wanting to involve their family members (11 percent). Moreover, during our focus group discussions, many women revealed that they hide these incidents from their family because of fear of being prevented from going to work, school, or simply enjoying the public space independently.

Second, there is a significant demand for police services to address harassment. In our baseline survey, about 80 percent of women reported they would have felt completely safe if police officers had been present during their most recent harassment experience at the hotspot. Moreover, when asked about factors that could improve their safety at these locations, 64 percent highlighted police presence as a key improvement, far outweighing other options like more CCTV cameras (14 percent), additional female help centers (7 percent), and better lighting (6 percent).

These descriptives highlight the role of police patrolling in targeting sexual harassment by potentially deterring these crimes without adding a burden to women (by having to report it to the police).

The EOS. It is exceptionally difficult to measure and track sexual harassment over

[11] BHAROSA provides support services to women and children affected by violence and sexual abuse. The organization uses a holistic convergence approach, and its model is being replicated in all districts of Telangana.

time and across different regions. For example, official data on harassment in India are collected by the National Crime Records Bureau but have serious limitations: they are only available at the district level, released annually, and solely based on reported incidents. Additionally, while survey data offer more frequent updates and finer details, they suffer from reporting bias in direct-question surveys and varied perceptions of harassment (Saguy and Rees, 2021). To overcome these measurement challenges, we developed the EOS to measure incidents of sexual harassment of women in public spaces, aiming to provide more accurate and timely data.

We recruited 173 enumerators to observe hotspots and spillover areas throughout Hyderabad. Trained using the SHE Teams' curriculum, they discreetly used their phones to record the number and types of sexual harassment incidents at various locations. Each enumerator observed their assigned location for 15–20 minutes, noting the total number of victims, the forms of victimization, and any subsequent actions taken by victims, bystanders, and police.[12] Each enumerator observed six hotspots per day and typically visited these locations once per week, spending an average of 16 minutes per visit, making the frequency and duration of this activity similar to those of the police patrol exercise. Routes and locations were randomly assigned daily, and enumerators, who were indistinguishable from the general public, were blind to the intervention and treatments. This setup was audited by researchers to confirm that passersby would not notice the enumerators, and even patrolling SHE Teams officers were unaware of the exercise. Additionally, to mitigate concerns about fatigue and bias, enumerators were rotated three times during the study, with each batch consisting of 15–20 individuals. In Appendix C, we discuss additional procedures and ethical considerations.

The EOS took place over 28 weeks: 4 weeks before the intervention started and overlapping for 24 weeks with the intervention. Our data include 24,669 enumerator obser-

[12]Mismeasurement of harassment frequency in hotspots could arise from factors such as crowdedness, which are inherently linked to harassment. To minimize errors, we implemented several procedures: we provided enumerators with detailed instructions and extensive training on how to identify incidents and record them. Enumerators could also input incident data after their 15–20 minute visits to each hotspot so that they did not have to immediately complete the record. Additionally, recognizing that some hotspots are larger than others, we stratified by size and included strata fixed effects in all our results.

vations recorded at treated and control hotspots as well as spillover areas.[13] For every observational visit, we code the total number of victims and harassment instances they noted and whether or not victims, bystanders, or police took any action. We construct a measure for the weekly rate of observed harassment as the total number of observed victims by type of harassment divided by the number of enumerator visits per week. Figure A3, panel (a) shows the distribution of harassment incidents across the city, as measured by the EOS at baseline.

Validity of the EOS. The harassment measure based on the EOS has multiple advantages. First, reporting effects—a challenge to address—did not impact the EOS given that enumerators recorded harassment faced by other women. Second, the EOS tracks changes in harassment over time and across locations, an important and innovative feature enabled by enumerators' daily observations. This frequent data collection improves our ability to identify the intervention's short-term effects. Third, the EOS was separate from the experiment since enumerators were blind to the treatment assignment, and both officers and citizens were unaware of the observation exercise, allowing us to obtain an accurate and unbiased account of the treatment effect. Because uniformed SHE Teams officers were indistinguishable from other police task forces, enumerators did not associate the patrols with the observation exercise since the police presence appeared typical.

To validate our measure, we analyze if enumerators changed their behavior. Appendix Figure A4 confirms that both the visits and duration of the enumerator observation were unrelated to the treatment assignment of a hotspot/spillover area. Moreover, the timing of the visits was uncorrelated with the treatment assignment (see Figure A5).[14]

These results align with the rotation of enumerators across different hotspots (treated, control, and spillover areas) and their replacement three times during the exercise. For example, an enumerator might monitor a uniformed hotspot one week and visit control hotspots, spillover areas, or undercover hotspots the next week. Consequently, unlike

[13] In Appendix D we describe the EOS survey instrument in detail.

[14] Figure A5 shows the number of visits by the enumerators from 8:00 am to 2:00 pm and 2:00 pm to 8:00 pm, by treatment arm. These time ranges correspond to peak travel hours for men and off-peak hours for women.

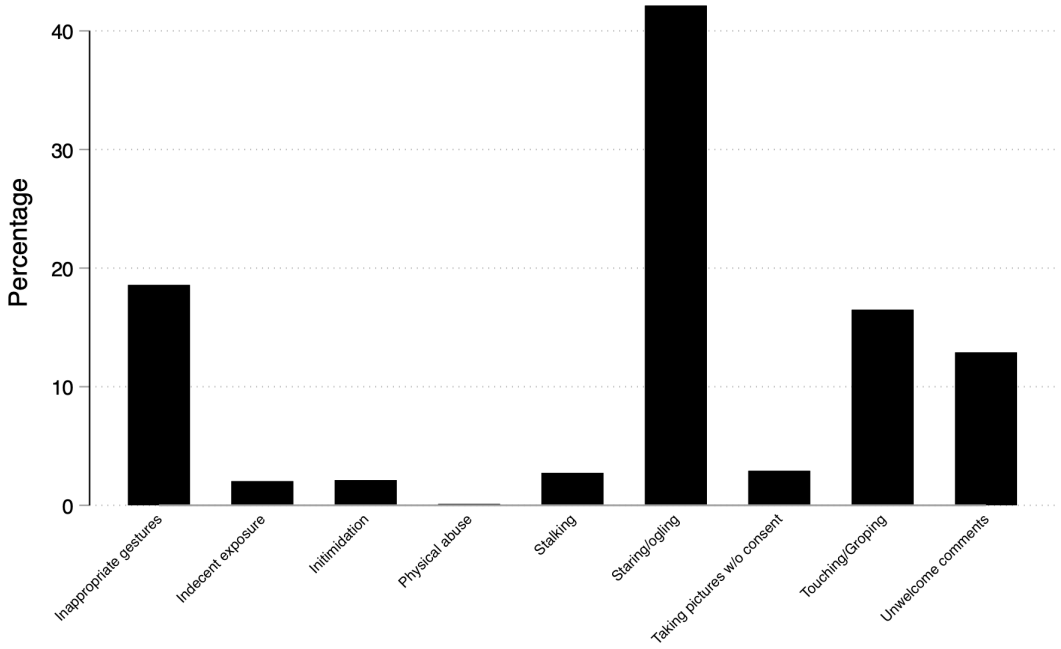
regular commuters who frequent the same hotspot daily, enumerators lack a historical perspective and only have limited current insights about a hotspot due to their movement across various locations. Additionally, the timing of their visits was not synchronized with police visits, reducing the likelihood that they would learn about the intervention targeting harassment. In fact, only 3.9 percent of the enumerator visits coincided with police visits, making it unlikely for them to recognize the police's anti-harassment efforts.

Sexual Harassment Observations. Figure I shows the distribution of sexual harassment incidents by category. Enumerators recorded about 11,913 incidents of street harassment, with approximately 75 percent classified as mild and 25 percent as severe.[15] We also calculate how many minutes takes to observe a case of sexual harassment from the perspective of an enumerator. To do so, we calculate the total number of victims of sexual harassment observed and the total time in minutes they spent in the hotpots. We calculate that, on average, an enumerator observes a sexual harassment victim every 36 minutes, approximately.

Using the EOS, we also find that enumerators observed that over 50 percent of victims responded to harassment by moving away from the location (see Appendix Figure A7).

[15] Appendix Figure A6 illustrates variations in the distribution of offenses by time of day and hotspot, highlighting a higher concentration of physical abuse during evening shifts.

Figure I: Street Harassment in Hyderabad



Note: The figure illustrates the percentage distribution of street sexual harassment incidents by type. The data encompasses a total of 11,913 recorded incidents throughout the study period from the Enumerator Observation Survey.

Police Reports. To measure citizens' willingness to report an offense to the police, we used incident-level data on all complaints reported to HCP's "Dial 100" helpline for 43 weeks—16 weeks before the intervention and 27 weeks during it. As Dial 100 calls are the most common way to seek an emergency police response across India, including Hyderabad, these data served as our measure of citizen reporting behavior at the hotspots.[16] For each call, the responder collected information on the type of incident, the location, and the date. To create a measure of unique calls made from hotspots in a given week, we geocoded the location of each complaint and mapped it to the nearest hotspot. We also gathered data on calls reporting crimes against women (including street harassment and

[16]Dial 100 is similar to 911 in the United States. The average response time in urban areas is estimated to be 5–10 minutes, and satisfaction rates for the service are very high among victims of gender-based violence (Srinivas, 2020).

other crimes) to test for potential spillovers of the intervention across different types of crime. Our main dataset consists of calls from 350 locations over 27 weeks and data from 16 weeks before the intervention.[17]

Police Patrols and Performance Metrics. To measure police compliance with the treatment and to assess subsequent police performance, we construct the following variables. First, we use a weekly measure for total patrols in a hotspot and their duration (in minutes). To create these variables, we use GPS tracking data for each vehicle that the police team traveled in (each patrol team traveled in its own vehicle).[18] We then map the routes and the parking time of each vehicle at the hotspots to create dummies for hotspot visits. Last, we calculate the duration of a patrol from the number of minutes a vehicle's ignition was off in a hotspot's vicinity.

Additionally, we have data on all actions taken by police—recorded as red-handed cases and warnings issued—that teams attributed to any harassment incident identified during a patrol at a given hotspot. The visit and duration data help us test officer compliance with the intervention requirements, and the data on red-handed offenses and warnings serve as our measure of incapacitation.

Police Officer Survey and Experiments. We conducted a telephone survey with a cross-section of HCP officers to ask about their employment history with HCP; their views on policing, sexual harassment, and SHE Teams; and their own perceived skills, job motivation, and demographic information. We sent officers a letter informing them of our collaboration with HCP and inviting them to participate in a 30-minute anonymous survey. Next, we called them to arrange a convenient time to conduct the survey. We surveyed all officers who had ever worked with SHE Teams, including those involved in our intervention, as well as all other officers from the same police stations and of the same rank as the SHE Teams officers before they joined the task force. Our final sample consists of all SHE

[17] Appendix Figure A3 shows the harassment reports received via Dial 100 calls, which closely align with the incidents recorded in the EOS dataset shown in panel (a). Combining both datasets using the spatial proximity and the time of the events, we estimate that only 4.5 percent of the cases observed by enumerators are reported to the police.

[18] On any given day, officers gathered with their teams at the SHE Teams office and began patrolling in their own assigned vehicle. Each team leader received a list of hotspots to cover during their shift.

Teams officers and 226 other HCP officers.

To maximize our sample size for the lab experiments, we used a two-step sampling process with police officers. First, we invited all SHE Teams officers. Next, we selected additional officers from those who had completed a previous survey and had participated in non-SHE Teams patrols during the same period as the intervention. This selection aimed to include officers who performed tasks similar to those of SHE Teams personnel. Our final sample of officers for the lab sessions included 354 participants. We invited them in groups of 10 for one-hour sessions and combined officers from different task forces and police stations in the same sessions.[19]

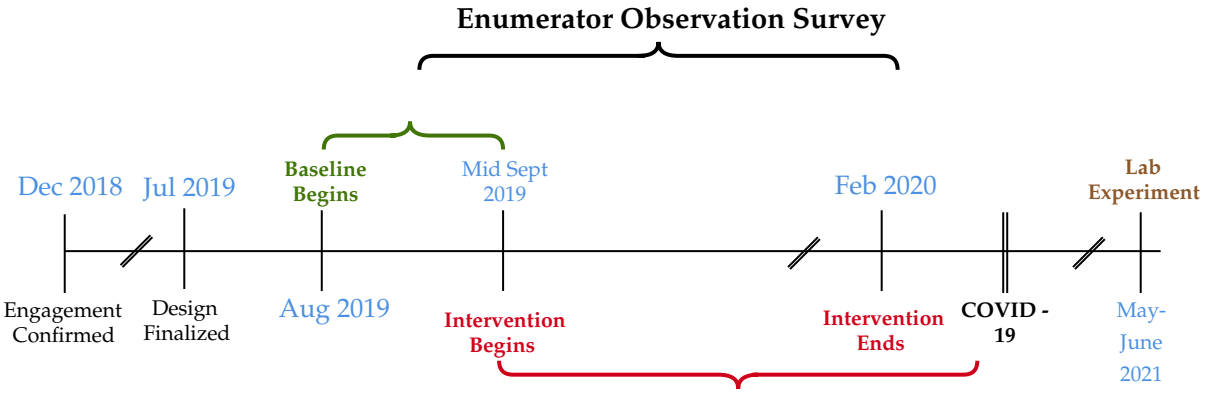
III.D Timeline and Comprehensive Study Protocols

Figure II shows the four-year study timeline from 2018 to 2021. Qualitative interviews, engagement with the police, and scoping work began in the summer of 2018. The baseline women's survey and the baseline EOS exercise occurred between August and September 2019. After SHE Teams officers were enrolled in the task force and randomly assigned teams to hotspots and their respective spillover areas, the intervention began in mid-September 2019 and concluded after 24 weeks. During this period, the EOS exercise was undertaken across the 350 hotspots and 750 spillover areas. Following pandemic stay-at-home orders in Hyderabad, we conducted lab experiments with the officers between March and April 2021.

Our empirical analysis deviates from the pre-analysis plan due to COVID-19-related data collection disruptions, detailed in Appendix B. Of the four pre-specified primary outcomes, only observed harassment was feasible for analysis, which we categorized into severe and mild based on the IPC and discussion with several Indian Police Service officers. Moreover, this distinction aligns with recent developments in the literature that have emerged since our pre-registration (Sharma, 2023), prompting us to examine these two outcomes separately. Although this adjustment left us with only one primary

[19] In Appendix D, we detail the lab protocol and safety and ethical procedures that were followed.

Figure II: Timeline of Activities



outcome, making multiple hypothesis corrections potentially misleading, we nonetheless conducted the pre-specified multiple hypothesis tests on these forms of harassment.

Regarding external validity, an important concern is the potential differences between SHE Teams officers and other HCP officers. SHE Teams officers are typically older and more likely to be female than their HCP counterparts. However, these differences are by design, as each SHE Teams include at least one female officer and a larger share of higher-rank officers relative to other patrol teams. Moreover, officers are assigned to SHE Teams from a sample of about 10,000 officers across all police stations in Hyderabad, without self-selection into these roles. Despite these differences, in our lab experiment aimed to determine if SHE Teams officers have different views toward harassment relative to other police officers, we find no evidence of such differences.

Finally, the project received ethical clearance from Princeton University and the Institute of Financial Management and Research in India. In Appendix C, we detail the structured ethical approach following Asiedu et al. (2021), focusing on policy equipoise and scarcity, the research team's role, potential harms, conflicts of interest, intellectual freedom, feedback mechanisms, and potential misuse of research results. The discussion primarily centers on the EOS exercise, outlining the measures taken to ensure the well-being and safety of enumerators.

III.E Empirical Specification

As previously outlined, we randomized the 350 hotspots to one of three experimental arms: uniformed patrols, undercover policing (officers in plain clothes), and control. To compute direct treatment effects for each arm, we compare the average observed harassment at treated hotspots to control hotspots. To estimate spillover effects, we draw 200m and 500m rings around treated and control hotspots, identify a busy area within those rings, and compare the rate of harassment on streets in these areas.

A priori, we expect uniformed officers to have both a deterrence effect from visibly patrolling the hotspot and an incapacitation effect from issuing warnings, sanctions, or arresting the perpetrators. Given that SHE Teams officers wear regular police uniforms and citizens may not associate regular policing with targeting sexual harassment, deterrence effects may take time to materialize. Thus, the long-term effectiveness of these patrols might depend on the visibility of penalties being consistently imposed on perpetrators. As both victims and perpetrators observe and learn about the consequences of harassment in these regularly patrolled areas, the likelihood of such incidents may decrease over time. Conversely, undercover officers, indistinguishable from regular citizens, are unlikely to generate deterrence effects but are expected to have an advantage in incapacitation, as they can catch perpetrators in the act more easily.

We estimate treatment effects using the following equation:

$$Harassment_{hw} = \beta_0 + \delta_1 Uniformed_h + \delta_2 Undercover_h + X_{hw} + \gamma_s + \epsilon_{hw}, \tag{1}$$

where the main dependent variable of interest is $Harassment_{hw}$, which represents the number of observed victims of a type of harassment per enumerator visit at each hotspot h in week w. $Uniformed_h$ is a dummy that equals one if a hotspot was randomly assigned to be patrolled by uniformed officers and zero if it was randomly assigned to the control group. The difference between the uniformed arm and the control arm is captured by the coefficient δ_1. $Undercover_h$ is a dummy that equals one if the hotspot was randomly assigned to be patrolled by undercover officers. The coefficient δ_2 captures the difference

between the undercover arm and control arm. X_{hw} is a vector of hotspot-week characteristics that includes dummies for whether the hotspot was affected by a public holiday or a bus strike in week w. γ_s are strata fixed effects, and ϵ_{hw} is the error term.

Standard errors are clustered at the hotspot level. We also correct p-values using the adjustments proposed by Westfall and Young (1993). We report the family-wise error rate, accounting for the two treatments, and p-values are obtained from 1,000 bootstrap replications to account for correlation across the different outcomes. We also report randomized inference p-values to address the issue that hotspots in this urban context are not well-defined geographic areas. As a result, clustering the standard errors at the hotspot level could lead to a biased estimation of the intervention effect. To address this concern, we present estimations for the main intervention sample and the spillover areas separately. We also present p-values obtained from randomly rearranging the treatment conditions and re-estimating our coefficients of interest using the placebo assignment.[20]

III.F Compliance and Police Patrol Performance

To illustrate officers' compliance with the intervention, Table I provides descriptive statistics on the number of times a hotspot was patrolled, time spent at the hotspot, and the number of warnings and sanctions issued at the location. We find that officers followed the guidelines and complied with the treatment. On average, they visited each hotspot three times per week and spent about 15 minutes per visit. In addition, they issued on average 0.02 warnings and sanctions per visit per week at each hotspot.

[20] We calculate randomized inference p-values using 500 random permutations.

Table I: Descriptive Statistics on Patrolling Behavior

	Mean	SD	Min	Max	Obs
	(1)	(2)	(3)	(4)	(5)
Total Visits	3.087	1.926	0.000	10.000	4,800
Duration per Visits (Minutes)	15.339	13.330	0.000	150.000	4,800
Warnings plus Sanctions per Visits	0.019	0.112	0.000	1.600	4,800
Warnings per Visits	0.013	0.092	0.000	1.500	4,800
Sanctions per Visits	0.006	0.056	0.000	1.000	4,800
Total Victims per Visit	0.449	0.612	0.000	5.000	2,879

Note: The table shows descriptive statistics on the total number of times a hotspot was patrolled, time spent at the hotspot, and the number of warnings and sanctions issued at the location. It further provides information on the duration, number of warnings and sanctions per patrol visit, as well as the number of victims per enumerator visit. Each observation is a hotspot-week combination. The sample is restricted to treated hotspots of both arms, undercover and uniformed (4,800 observations). Data sources: Police vehicle GPS trackers.

Next, we study how officers' compliance with the intervention varied by treatment arm, estimating equation 1 to analyze time spent at hotspots and the number of warnings and sanctions issued. Table II presents the results. Column (1) shows that at while patrolling hotspots in uniform, officers spent less time per visit (about 12 minutes) than undercover officers, who spent about 18 minutes per visit.

Columns (2)–(4) show an increase in warnings and sanctions by police officers in both arms relative to the control group. Consistent with the theory predicting larger incapacitation effects at undercover hotspots, undercover officers issued more sanctions and warnings than visible officers. Unlike uniformed police officers, the presence of undercover officers does not directly deter crime and thus, there might have been a greater number of incidents committed at these hotspots. Moreover, even when undercover officers make arrests, their activity is less salient to perpetrators because they are dressed as civilians. This finding could also explain the more time spent per visit per hotspot by undercover vs. uniformed officers. Since undercover officers could better identify perpetrators and

thus issued more warnings and sanctions than uniformed officers, they spent more time at the hotspots. On average, undercover police officers sanctioned 8.6 percent of cases.[21]

Table II: Effects on Patrol Duration, Warnings, and Sanctions per Visit

	Patrol Duration	Warnings	Sanctions	Warnings and Sanctions
	(1)	(2)	(3)	(4)
Uniformed	12.697***	0.007***	0.003***	0.010***
	(0.297)	(0.002)	(0.001)	(0.002)
Undercover	18.014***	0.018***	0.010***	0.028***
	(0.388)	(0.003)	(0.002)	(0.004)
Observations	8,400	8,400	8,400	8,400
Mean of Dep. Var. / Control	0.000	0.000	0.000	0.000
Uniformed=Undercover (p-value)	0.000	0.001	0.001	0.000

Note: The dependent variables are patrol duration per visit and the number of police actions (sanctions and warnings) per visit. Each observation represents a hotspot-week combination. The regressions include fixed effects for strata. Uniformed is a dummy that equals one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that equals one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and shown in brackets. Data sources: Police vehicle GPS trackers and SHE Teams administrative records. The data includes treated and control hotspots.

Overall, our results show that police officers complied with the assignment and increased the number of warnings and sanctions relative to the control group, where no officers were assigned.

[21] On average, these officers sanction or warn 0.041 cases, and the number of victims per visit in the control group is 0.471.

IV Results

IV.A Police Patrols and Street Harassment

Table III presents the effects of uniformed and undercover patrols on total street harassment and offenses by severity. While we find no effects on the aggregate measure, we find a 27 percent reduction in severe sexual harassment in locations patrolled by uniformed police, as shown in Column (2). On average, there are 67 people per hotspot visit. Assuming conservativelythat 30 percent are women (20), of these on average 12.9% or 2.6 women face severe harassment at a control hotspot in Hyderabad in a week. A 27 percent reduction amounts to 0.7 fewer women being victimized by severe harassment per week. However, uniformed policing had no effects on mild sexual harassment, as shown in Column (3). Additionally, undercover policing did not affect the incidence of any type of street harassment. These results are robust to the adjustment of p-values, different specifications such as the week, enumerator fixed effects, controlling for public holidays and bus strikes, and using the number of offenses per incident event—rather than the unique number of instances—as the main dependent variable (see Appendix Tables A7 and A8).[22]

Deterrence and Incapacitation Effects. Given that undercover police issued more sanctions than uniformed officers but only uniformed officers affected harassment incidents, we can infer that the effect of uniformed police patrols comes from the deterrence of criminals. The lack of direct incapacitation effects on harassment is in line with the results presented in Tables I and II, which show that even when police officers issued warnings and sanctions in treated hotspots, these numbers were small relative to the total number of victims identified by enumerators each week. On average, enumerators observed 0.447 incidents per 15-minute visit per hotspot, but undercover officers could sanction and warn in only 8 percent of these cases.[23]

[22] In Appendix Table A9, we conduct exploratory analysis to identify which types of street harassment cases could be driving the results. We find that the effects are driven by touching/groping and intimidation.

[23] Concerns about enumerators detecting sexual harassment incidents more effectively than police officers appear unfounded. Both groups received similar training, and SHE Teams patrols included at least one female officer and consisted of three people, potentially offering more comprehensive coverage than a single

The undercover nature of the officers reduced any potential deterrence effect from their arrests. Since they concealed their identities while making arrests, it was difficult for citizens to notice and understand the warnings and sanctions being issued. In contrast, arrests made by uniformed officers were more visible to the public, as they openly explained the reasons for arrests and highlighted the role of SHE Teams in addressing sexual harassment. In fact, we corroborate this mechanism with enumerator data showing more police activity observed in uniformed hotspots compared to control hotspots, with no similar in undercover hotspots (see Appendix Table A10).

To shed further light on whether the presence of uniformed police deterred perpetrators, we study monthly dynamic effects of the intervention in Figure A9. The deterrence effects became apparent after the second month and persisted throughout the intervention. Furthermore, arrests at uniformed hotspots were mostly concentrated in the first months and declined in the last months since officers had already deterred perpetrators (see Appendix Figure A10).

The lack of immediate effects of uniformed policing could be explained by perpetrators gradually learning that the officers in our intervention targeted sexual harassment. Although offenders observed uniformed police from the first month, it took time for them to recognize the police's focus on sexual harassment. This is supported by the small number of sexual harassment sanctions by regular police officers before our intervention—only 45 in 2017—suggesting that citizens might not have associated police officers with targeting sexual harassment. Additionally, using our data on EOS combined with police calls, we find that only 4.5% of the observed harassment incidents were reported to the police, with the main reason for non-reporting being the perception that sexual harassment was too common and unlikely to be sanctioned (as found in the baseline women's survey).

Finally, the delayed effects at uniformed hotspots could also be due to the intervention design. Police presence at these hotspots was random, occurring only three times per week at different times and dates. For example, while an individual might witness

enumerator. Moreover, Section V.A shows that police officers, including SHE Teams members, could detect sexual harassment offenses most of the time. Finally, enumerators detected harassment in the exact same conditions as officers in terms of crowds, lighting, etc.

police sanctioning harassers on one day, they might miss seeing the police on other days if subsequent visits occur at different times. Therefore, the timing and randomness of the 15-minute visits likely influenced when the intervention's effects became noticeable.

In contrast, when examining the effects of undercover hotspots over time, we find no evidence of the pattern observed at uniform hotspots. Appendix Figures A11 and A12 show that although sanctions increased every month during the intervention, there was no reduction in harassment of any type. This result may be because perpetrators are less likely to notice sanctions in undercover settings, reducing the deterrent effect. Indeed, our analysis of the effects of the first sanction in undercover hotspots reveals no subsequent decrease in harassment (see Appendix Figure A13). These results suggest visible police action might be necessary to deter perpetrators and achieve reductions in sexual harassment.[24]

Police Visibility. Next, to evaluate if the reduction in harassment was sustained, we take advantage of the fact that police officers and enumerators were rarely at the same hotspot simultaneously. Using their overlapping times, we conduct the following analysis. First, we estimate the effects using the times that they did not overlap. Second, we control for the share of visits in which they overlap. Third, we calculate the victimization rate for a hotspot week, excluding overlapping visits. Appendix Tables A11, A12, and A13 present the results, showing similar effects on harassment at uniformed hotspots in all specifications. These results indicate that the intervention's effects may continue beyond its conclusion.

We also perform several tests to validate whether visible policing affects enumerators' perceptions of harassment. Using the EOS data, we find that the results are robust to excluding the weeks where the enumerators reported observing police action, controlling for those visits, removing all the weeks after they observed the first sanction, and calculating the victimization rate without the observation where enumerators saw police action

[24]If the policy goal is to maximize arrests and reduce the number of perpetrators, undercover policing might be more effective. However, considering the large pool of perpetrators relative to the arrest rate, this approach could require more time.

(see Appendix Tables A14 to A17).[25] In Appendix A, we examine other mechanisms, such as displacement effects, reporting effects, other crimes, and gender norms. Tables A18 to A23 show no evidence that these mechanisms are driving the reduction in severe cases.

Overall, our results suggest that the decline in severe sexual harassment occurred because uniformed police officers not only incapacitated offenders but also deterred potential ones. However, it remains unclear why visible police officers did not impact mild sexual harassment. In Section V, we study other possible mechanisms, such as police attitudes regarding these crimes, to understand the lack of effect on mild sexual harassment.

[25]To further validate the EOS measure, we analyze if enumerators' characteristics influenced their ability to detect harassment. Appendix Figure A14 presents the coefficients of the interaction term between enumerator characteristic X (x-axis) and treatment status Z, which is a dummy variable that equals one if the hotspot was assigned to uniformed police, and zero if assigned to undercover police. We run three different regressions per characteristic, targeting all types, severe, and mild harassment cases, represented by orange, green, and blue coefficients, respectively. The results generally show no differential effect of enumerators' characteristics on their harassment detection capabilities across treatments.

Table III: Effect of Police Patrols on Street Harassment

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.029	-0.035***	0.006
	(0.025)	(0.013)	(0.019)
	[0.288]	[0.008]	[0.770]
		{0.038}	{0.896}
Undercover	-0.009	0.006	-0.015
	(0.026)	(0.014)	(0.018)
	[0.708]	[0.608]	[0.400]
		{0.896}	{0.796}
Observations	4,988	4,988	4,988
Mean of Dep. Var. / Control	0.471	0.129	0.342
Uniformed=Undercover (p-value)	0.478	0.002	0.325

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that equals one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that equals one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Randomized inference p-values are displayed in squared brackets. Westfall-Young adjusted familywise error rate p-values are in curly brackets. Source: Enumerator Observation Survey.

IV.B Impact of Policing on Women's Adaptive Behavior to Street Harassment

In this section, we examine whether the decrease in severe harassment at hotspots with uniformed patrols affected women's response to harassment. At baseline, over 50 percent of women reacted to harassment by moving to safer areas. This behavior, often leading to changes in travel routes, is associated with increased travel costs (Kondylis et al., 2020) and adverse educational outcomes for women (Borker, 2024). We investigate whether SHE Teams can reduce such precautionary responses, using EOS data where enumerators observed women's actions in response to harassment as indicators of safety perception. We define as an outcome variable a dummy indicating whether women were observed moving to another block, fleeing from perpetrators, or avoiding certain areas within the hotspot.[26]

Table IV shows that in hotspots patrolled by uniformed officers, enumerators observed a lower rate of women moving to safer locations within the hotspot due to harassment. This result suggests that uniformed policing effectively improved women's safety perceptions, making them less likely to move in response to sexual harassment. These results are robust to directly using the actual number of women who moved or assigning a zero value to hotspot-weeks with no victims (see Appendix Table A24).

[26] In the original design, we intended to administer an endline survey to quantify the intervention's effects on female labor force participation, mobility, and reactionary reports. However, we could not collect these data due to the COVID-19 pandemic.

Table IV: Street Harassment and Women's Mobility

Share of Victims Moving Location due to Sexual Harassment in Public Spaces		
	Severe	Mild
	(1)	(2)
Uniformed	-0.061**	0.027
	(0.031)	(0.021)
Undercover	0.001	0.023
	(0.032)	(0.020)
Observations	774	2,022
Mean of Dep. Var. / Control	0.211	0.236
Uniformed = Undercover (p-value)	0.064	0.845

Note: The main dependent variable is the share of women observed by enumerators who moved to another block, fled, or avoided an area within the hotspot in response to severe and mild harassment. We present this variable for victims of severe harassment in Column (1) and for victims of mild harassment in Column (2). Each regression includes strata fixed effects. Uniformed is a dummy that equals one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that equals one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

To further understand if the changes in women's mobility are due to the decline in severe sexual harassment and improved safety, Appendix Table A25 analyzes the relationship between the rate of severe harassment over total offenses and the probability of moving to another block. Consistent with the idea that uniformed policing would make hotspots safer, we find that in hotspots with lower cases of severe harassment, women were less likely to move. These results are consistent with qualitative evidence highlighting that as women feel safer, they believe harassment is less likely to escalate because police officers will intervene. Additionally, in Appendix Figure A15, we consider whether women substituted police response for autonomous action, but we find no evidence of

it.[27]

Overall, these results show that improvements in law enforcement, which can act independently from women's police reports, can help reduce the burden on women to respond to harassment on their own. This result is particularly relevant given the stylized fact that harassment happens too often, is largely committed by strangers, and the costs for women to address harassment are extensive, as shown in our baseline data and previous qualitative evidence (Hardt et al., 2023).

V Mechanisms

In this section, we study the mechanisms behind the reduction in severe harassment and the lack of effects for mild offenses from uniformed patrolling. Specifically, we aim to understand how police officers' views on street harassment affect their performance and, ultimately, the incidence of sexual harassment.[28]

V.A Lab Experiments

Between January and March 2021, we conducted lab experiments to determine if officers' ability to detect and punish harassment offenses—along with their overall tolerance—explained the intervention effects. Given that officers must prioritize among multiple offense types, and since more severe offenses are likely easier to detect and prosecute, our first experiment focused on HCP officers' capacity to detect and respond to mild offenses. In the second experiment, we compared how SHE Teams officers' likelihood of punishing

[27] We also rule out that effects are driven by compositional effects. Table A26 in the Appendix examines how changes in the composition of women at these hotspots may have influenced the observed effects. Analysis of the EOS data reveals no differences in women's age, skin tone, or attire despite these factors often being cited as precipitating harassment. Additionally, using the EOS data, Table A27 considers changes in perpetrator types and their familiarity with victims. The findings suggest that uniformed policing did not selectively deter unfamiliar perpetrators, as no significant variations in the characteristics of victims or perpetrators were detected.

[28] Dhillon and Bakaya (2014) find that officers in Delhi stations vary extensively in their perception of victims and of their role when implementing laws regarding harassment. Victims tend to have better interactions with the police when officers' attitudes align with the law. We hypothesize that SHE Teams officers are more effective when their actions are aligned with the governing.

mild sexual harassment offenses differed from their response to more severe ones.

We invited 354 HCP officers (including SHE Teams officers participating in our intervention) to attend a one-hour session in a lab at HCP headquarters that was created specifically for our research. Each lab session was designed for up to 10 officers, with 8 officers attending each session. Participation was mandatory, and all the officers participated.[29] Officers were incentivized for correct answers that could earn each participant a maximum of INR 520 (USD 6.19) in the form of an Amazon voucher. To measure their attention during the experiment and maximize their engagement, each experiment also contained two encouragement messages and attention checks. Of the 354 officers invited to participate in the experiment, 18 (5%) did not pass the attention checks.

During the experiment, each officer was shown nine videos of vignettes to elicit their reactions to specific situations, after which they answered a brief survey indicating their response to each hypothetical situation. Of the nine videos, six depicted instances of mild sexual harassment, one showed a property offense, and two showed neutral events without any illegal activity.[30] In all the videos, women were depicted either as victims or as protagonists engaging with men. We randomized the presentation of videos in two ways: the order in which the videos were shown, and the playback speed (fast videos were played at a speed of 1.75x).[31] This randomization approximated the challenges officers face on patrol since detecting sexual harassment requires a high degree of attention, knowledge, and quick response. We showed several videos to provide multiple opportunities to measure detection as sexual harassment varies substantially in form, and it would be difficult to obtain an accurate representation based on only one vignette. To gather officer-level data, we combine data obtained from this sample with data from the phone survey conducted earlier.

[29] Appendix Figure A16 shows the distribution of seats and the setting. We obtained full compliance, as the HCP Commissioner of Police endorsed our lab experiment and phone surveys.

[30] Appendix Table A28 describes the scenes and types of videos. The scripts were developed based on real instances of sexual harassment that women described during the pilot of the baseline survey and from police reports made to the SHE Teams office.

[31] For instance, if a video was 2 minutes long, a sped-up video lasted 1.14 minutes. Through piloting, we determined that these videos mimicked street conditions, and they allowed sufficient time for officers to notice and identify sexual harassment.

To test the role of the officers' detection ability, their probability of administering punishment, and their tolerance of mild sexual harassment versus instances in which no harassment occurred, we compare officers' responses across video types (mild sexual harassment versus no harassment) such that

$$Y_{vos} = \beta_0 + \delta_1 SexualHarassment_v + \gamma_s + \epsilon_{vos}, \tag{2}$$

where Y_{vos} is the main dependent variable of interest for each video v randomly shown to officer o in session s. The main dependent variables are defined as follows. *Offense identification* is a dummy that equals one if officers correctly identify the scene displayed in the video, and *Perception of ease of detection of an offense* is a dummy equal to one if officers perceive the offense as being easy to detect. *Rate of the necessity of investigation* is a dummy that equals one if an officer thinks the offense requires action, and *Punitive action* is a dummy that equals one if officers take some action (e.g., give a warning or take in the suspect to the station).

The main independent variable of interest is $SexualHarassment_v$, a dummy equal to one for videos displaying mild harassment incidents and zero otherwise. γ_s is lab session fixed effects, and ϵ_{vos} is the error term. Standard errors are clustered at the officer level.[32]

Table V presents the results. Column (1) shows that about 82 percent of officers detected sexual harassment in the videos, and officers were equally likely to detect mild cases of harassment relative to property crimes. Additionally, police officers could detect even mild cases of harassment when the video was sped up. These results suggest that the lack of effects on mild harassment was not due to an inability to detect these crimes.

Column (2) shows that while officers detected both mild harassment offenses and property crimes in public, they were 10 percentage points less likely to believe mild street

[32]On average, 81 percent of officers participating in the experiment were male, 59 percent had a graduate or postgraduate education, and 14 percent were SHE Teams officers. Officers' ability to identify was high, with 82 percent correctly identifying a scene, 61 percent perceiving that detection was easy, and 80 percent not dismissing an incident—consistent with the fact that 8 out of the 9 videos displayed a crime incident. However, 40 percent of officers exhibited significant victim-blaming beliefs. Since we randomized by type of video and speed, we also find that officers' characteristics did not differ across treatment arms. In addition, their total completion time for the experiment and the composition of the session were well-balanced.

harassment was easy to detect compared with property crime. Columns (3) and (4) show that officers believed they did not need to detect or punish mild street harassment crimes. These results suggest that officers were less likely to pursue charges for mild harassment cases, both because they viewed them as requiring more effort and as being less important.[33]

Table V: Detection, Tolerance, and Punishment of Sexual Harassment vs. Other Crimes

	Detection	Easy to Detect	Need to Address	Punish
	(1)	(2)	(3)	(4)
Mild Sexual Harassment	-0.024	-0.097***	-0.076***	-0.187***
	(0.022)	(0.022)	(0.010)	(0.012)
Obs.	2,688	2,688	2,688	2,688
Dep. Var. Mean	0.818	0.698	0.916	0.836

Note: Mild Sexual Harassment is a dummy that is equal to one for videos displaying mild harassment incidents and zero otherwise. The dependent variable in Column (1) is a dummy that indicates if an officer was able to differentiate sexual harassment offenses from other offenses in the videos. The outcome in Column (2) is the share of officers who believed sexual harassment offenses were easier to detect than non-sexual crimes. Column (3) uses a binary indicator for whether police officers believed they should invest their time gathering evidence against mild sexual offenses as the outcome. Column (4) reports the treatment effect on a dummy that indicates whenever an officer believed that sexual offenses deserved punishment. Clustered by police officer standard errors in brackets: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. Source: Lab experiment data.

In our second experiment, SHE Teams officers watched videos on street harassment, and we varied the severity of cases. Both the first and second exercises were implemented

[33]In Appendix Table A32, we leverage the comprehensive data encompassing all police officers, not just SHE Teams, to explore variations in effects by officer type. The analysis reveals that SHE Teams officers are more adept at detecting street harassment crimes than their non-SHE Teams counterparts. However, their attitudes toward these crimes are consistent with those of average police officers. This finding is consistent with the training objectives of SHE Teams, which focus on improving skills in detecting street harassment and understanding relevant legislation rather than changing personal attitudes or views toward such crimes.

in the same structure and sample, with the main difference being that in the second experiment, all officers viewed the same videos and the conditions did not vary. Here, officers viewed seven videos—one mild offense and six severe offenses.[34] Based on this experiment, we evaluate the performance of officers who only worked in the SHE Teams program, which deals exclusively with patrols and sexual harassment offenses. The results are very similar to those in Table V. These officers were more likely to detect mild offenses but much less likely to punish them (see Table A33). This result is consistent with the intuition that officers' attitudes, rather than their ability to detect harassment, may primarily explain why SHE Teams patrols had little effect on the incidence of mild harassment. We directly test this hypothesis in the next section.

V.B Heterogeneity Based on Police Officers' Views of Harassment

Given the variation in attitudes across police officers concerning street harassment, we exploit data on their individual characteristics to analyze the impact of their views on sexual harassment. Specifically, we use information based on eight different items related to policing, sexual harassment, and their roles in preventing and punishing such crimes. We combine these individual-level data with weekly data on officers' hotspot assignments and merge them with the EOS data to create a hotspot-week measure of officers' attitudes toward sexual harassment. It is worth noting that the teams and assignments varied randomly by day. As a result, our measure of gender attitudes explores the variation in team attitudes across hotspots and over time.[35] To calculate and analyze the results, we create a dummy equal to one if the attitudes of the team patrolling a given hotspot-week are in the top quartile of the distribution across teams, and zero if not.[36]

Table VI presents these results. Column (1) shows that uniformed officers with harsher

[34] Appendix Table A28 describes the scenes and types of videos. We developed the scripts based on instances of sexual harassment that women described during the pilot of the baseline survey and from reports made to the SHE Teams office.

[35] Figure A17 shows that police officers' attitudes are balanced across treatment arms.

[36] We also analyze whether women's norms or bystander behavior at baseline at the hotspot mitigated the effects (see Appendix A). We find no evidence that the effects were smaller in hotspots that were more tolerant of harassment.

attitudes toward sexual harassment reduced overall harassment incidence in public spaces by 12 percent. However, the victimization rates of severe harassment were not differentially affected by patrols comprising officers with less tolerance of harassment [Column (2)]. The main effect of the intervention remains unchanged, and we find that having officers who were less tolerant of harassment on a team did not alter their ability to reduce the most severe forms of harassment. In contrast, patrols by officers less tolerant of harassment led to a 15 percent reduction in mild offense victimization [Column (3)]. Patrols in the remaining three-quarters of the distribution did not impact mild harassment rates. This result is crucial as it indicates that the effectiveness of patrols varies across different conditions, suggesting that a one-size-fits-all approach to reducing harassment may not be sufficient. Understanding these nuances is essential for designing more effective and targeted policy interventions. Appendix Figures A29 to A31 confirm the robustness across different thresholds.

Table VI: Effect of Policing on Street Harassment by Patrol Officers' Harassment-Related Attitudes

	Sexual Harassment in Public Spaces		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed X Police Attitudes	-0.058*	-0.003	-0.055*
	(0.033)	(0.016)	(0.030)
Uniformed	-0.005	-0.032**	0.028
	(0.028)	(0.015)	(0.021)
Undercover X Police Attitudes	0.031	0.043	-0.012
	(0.055)	(0.030)	(0.038)
Undercover	-0.001	0.001	-0.003
	(0.030)	(0.016)	(0.022)
Observations	4,582	4,582	4,582
Mean of Dep. Var / Control	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total forms of harassment. In Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that equals one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that equals one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Police Attitudes is a dummy that equals one if the average team of officers patrolling a hotspot in a given week scored in the 75th percentile or higher of the police attitudes index. The police attitudes index is obtained from individual-level officer surveys. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and police officer survey.

Are harsher officer attitudes correlated with other officer characteristics (e.g., general effort, ability, experience, or gender)? Given that experience, education, and gender were

fixed across teams, we can rule out those characteristics driving the effects of mild harassment. To determine whether general effort or ability versus attitudes toward sexual harassment specifically affect mild case reductions, we rely on the fact that the reduction in severe cases was not affected by police officers' views. If officers' attitudes correlate with their ability, varying the attitudes within officers' teams would likely result in a larger decline in severe harassment as well. However, we find no evidence of a larger effect [Column (2)].

These results indicate that officers' views on harassment likely influence their actions regarding mild cases, often dismissed as "harmless," but frequent and tolerated. In addition, we show that for severe offenses for which sanctions might be more likely, there was no added police performance effect from having a less tolerant team of officers. Our results are consistent with perpetrators learning by updating beliefs about the probability of punishment (Banerjee et al., 2019; Anwar and Loughran, 2011; Wilson, Paternoster and Loughran, 2017). In particular, we observe that officers with less tolerance toward harassment are more likely to be active at the hotspots (Table A34) and are more likely to punish mild cases (Table A35).[37] Accordingly, perpetrators are less likely to commit mild offenses when they see this police activity. In contrast, when perpetrators observe less active police officers, they may presume that these officers will act if they commit a severe offense but not a mild one.

Overall, these results highlight that police effort is discretionary and influenced by individual-level characteristics, such as attitudes toward harassment, indicating that the determinants of job performance are affected by officers' personal views of these crimes. Additionally, our findings show that officers' attitudes significantly affected the effectiveness of SHE Teams. Such a result is orthogonal to other characteristics, such as gender or experience, as patrol teams have the same composition in these dimensions. To sustain and amplify these outcomes, integrating training reforms is essential, aiming to consistently reshape officers' attitudes toward harassment and reinforce a culture of account-

[37] Ideally, we would have liked to observe if the field officers were more likely to sanction severe cases. Due to confidentiality concerns, the data on sanctions were not provided to us categorized by type of harassment.

ability and respect.

VI Conclusion

In our study, we investigate the effectiveness of different street patrolling approaches in reducing sexual harassment in public spaces. We find that patrols by uniformed officers reduced severe sexual harassment but not mild offenses. The results from our lab experiment explain the effect on milder sexual harassment: it stems from officers' views on punishing milder forms rather than from the difficulty of detection. Consistent with these results, we find that teams with more progressive attitudes—who were less tolerant of sexual harassment—were more effective at reducing both mild and severe harassment in public spaces. Our work highlights the nuanced effects of different street patrol methods on sexual harassment and emphasizes the importance of addressing underlying attitudes within law enforcement teams to effectively combat all forms of sexual harassment in public spaces.

A simple cost-benefit analysis highlights the value of scaling such an operation to other urban centers. To estimate the costs, we can reference the 2021 budget allocation for SHE Teams, which covers officer salaries, training, vehicle maintenance, and facility operations, totaling INR 10 million (USD 120,000). Regarding benefits, using estimates from Borker (2024), a standard deviation of improvement in perceived safety corresponds to a 16.5 percent decrease in reported harassment and an increase of INR 85,500 (USD 1,025) in potential graduation salaries. Applying this estimate to the observed reduction in severe harassment among women graduating from college in Hyderabad, the benefits of uniformed policing amount to INR 1.2 billion (USD 14.3 million) in terms of higher salaries that women could earn by not opting for lower-quality educational paths due to fear of harassment.

From a policy standpoint, we highlight ways to increase police effectiveness in addressing sexual harassment, a crime that is infrequently reported yet prevalent. Understanding different modes of policing is pivotal for developing countries like India, where

there are only 144 police officers per 100,000 people—one of the lowest police per capita in the world (Nation, 2017). More importantly, our analysis reveals that the type of patrol (i.e., uniformed versus undercover) affects the deterrence of sexual harassment. While undercover patrols by SHE Teams, with their element of surprise, slightly improve offender detection, visible policing is more effective at deterring this widespread offense. Finally, our findings indicate that officers' attitudes toward sexual harassment determine their effectiveness in addressing both severe and mild offenses. Training programs that focus on shifting these attitudes could thus improve police performance, especially since police are often the first point of contact for victims.

References

ActionAid. 2016. Fearless. Technical report ActionAid.

Adams-Prassl, Abi, Kristiina Huttunen, Emily Nix and Ning Zhang. 2022. Violence Against Women at Work. Technical report Federal Reserve Bank of Minneapolis.

Amaral, Sofia, Sonia Bhalotra and Nishith Prakash. 2021. "Gender, crime and punishment: Evidence from women police stations in India." *CESifo working paper* .

Anwar, Shamena and Thomas A Loughran. 2011. "Testing a Bayesian learning theory of deterrence among serious juvenile offenders." *Criminology* 49(3):667–698.

Asiedu, Edward, Dean Karlan, Monica Lambon-Quayefio and Christopher Udry. 2021. "A call for structured ethics appendices in social science papers." *Proceedings of the National Academy of Sciences* 118(29).

Ba, Bocar A, Dean Knox, Jonathan Mummolo and Roman Rivera. 2021. "The role of officer race and gender in police-civilian interactions in Chicago." *Science* 371(6530):696–702.

Banerjee, Abhijit, Esther Duflo, Daniel Keniston and Nina Singh. 2019. The efficient deployment of police resources: Theory and new evidence from a randomized drunk driving crackdown in India. Technical report National Bureau of Economic Research.

Bindler, Anna, Nadine Ketel and Randi Hjalmarsson. 2020. "Costs of victimization." *Handbook of Labor, Human Resources and Population Economics* pp. 1–31.

Bland, Matthew, Michelle Leggetter, David Cestaro and Jacqueline Sebire. 2021. "Fifteen minutes per day keeps the violence away: A crossover randomised controlled trial on the impact of foot patrols on serious violence in large hot spot areas." *Cambridge journal of evidence-based policing* 5(3):93–118.

Blanes i Vidal, Jordi and Giovanni Mastrobuoni. 2018. "Police patrols and crime." *IZA Discussion Paper* .

Blattman, Christopher, Donald P Green, Daniel Ortega and Santiago Tobón. 2021. "Place-based interventions at scale: The direct and spillover effects of policing and city services on crime." *Journal of the European Economic Association* 19(4):2022–2051.

Borker, Girija. 2022. "Constraints to Women's Use of Public Transport in Developing Countries, Part II: Safety." *Global Indicators Briefs* 2(10).

Borker, Girija. 2024. "Safety First: Perceived Risk of Street Harassment and Educational Choices of Women." *Working Paper* .

Boudreau, Laura E, Sylvain Chassang, Ada Gonzalez-Torres and Rachel M Heath. 2023. Monitoring harassment in organizations. Technical report National Bureau of Economic Research.

Braga, Anthony A, Brandon Turchan, Andrew V Papachristos and David M Hureau. 2019. "Hot spots policing of small geographic areas effects on crime." *Campbell Systematic Reviews* 15(3):e1046.

Chakraborty, Tanika, Anirban Mukherjee, Swapnika Reddy Rachapalli and Sarani Saha. 2018. "Stigma of sexual violence and women's decision to work." *World Development* 103:226–238.

Cheema, Ali, Asim I Khwaja, Farooq Naseer and Jacob N Shapiro. 2019. Glass walls: Experimental evidence on access constraints faced by women. Technical report Mimeo, Harvard University.

Collazos, Daniela, Eduardo García, Daniel Mejía, Daniel Ortega and Santiago Tobón. 2021. "Hot spots policing in a high-crime environment: An experimental evaluation in Medellin." *Journal of Experimental Criminology* 17(3):473–506.

Dahl, Gordon B and Matthew M Knepper. 2021. Why is workplace sexual harassment underreported? The value of outside options amid the threat of retaliation. Technical report National Bureau of Economic Research.

Dhillon, Megha and Suparna Bakaya. 2014. "Street harassment: A qualitative study of the experiences of young women in Delhi." *Sage Open* 4(3):2158244014543786.

Di Tella, Rafael and Ernesto Schargrodsky. 2004. "Do police reduce crime? Estimates using the allocation of police forces after a terrorist attack." *American Economic Review* 94(1):115–133.

Draca, Mirko, Stephen Machin and Robert Witt. 2011. "Panic on the streets of London: Police, crime, and the July 2005 terror attacks." *American Economic Review* 101(5):2157–81.

Dube, Oeindrila, Sandy Jo MacArthur and Anuj Shah. 2023. A Cognitive View of Policing. Technical report Mimeo, University of Chicago.

Field, Erica and Kate Vyborny. 2022. "Women's Mobility and Labor Supply: Experimental Evidence from Pakistan." *Asian Development Bank Economics Working Paper Series* 655.

Folke, Olle and Johanna Karin Rickne. 2020. "Sexual harassment and gender inequality in the labor market." *CEPR Discussion Paper* DP14737.

Hardt, Selina, Heidi Stöckl, Joyce Wamoyi and Meghna Ranganathan. 2023. "Sexual harassment in low-and middle-income countries: A qualitative systematic review." *Trauma, Violence, & Abuse* 24(5):3346–3362.

Hoenig, John M and Dennis M Heisey. 2001. "The abuse of power: the pervasive fallacy of power calculations for data analysis." *The American Statistician* 55(1):19–24.

Jayachandran, Seema. 2021. "Social norms as a barrier to women's employment in developing countries." *IMF Economic Review* 69(3):576–595.

Kondylis, Florence, Arianna Legovini, Kate Vyborny, Astrid Maria Theresia Zwager and Luiza Cardoso De Andrade. 2020. "Demand for safe spaces: Avoiding harassment and stigma." *World Bank Policy Research Working Paper* (9269).

Koper, Christopher S. 1995. "Just enough police presence: Reducing crime and disorderly behavior by optimizing patrol time in crime hot spots." *Justice quarterly* 12(4):649–672.

Lindo, Jason M, Peter Siminski and Isaac D Swensen. 2018. "College party culture and sexual assault." *American Economic Journal: Applied Economics* 10(1):236–65.

Livingston, Beth. 2015. Hollaback! International Street Harassment Survey Project. Technical report ActionAid.

Moser, Caroline. 2012. "Mainstreaming women's safety in cities into gender-based policy and programmes." *Gender & Development* 20(3):435–452.

Nation, United. 2017. "Data on Police Organisations 2017." *Population Division, United Nations Office on Drugs and Crime* .

Saguy, Abigail C and Mallory E Rees. 2021. "Gender, power, and harassment: Sociology in the #MeToo era." *Annual Review of Sociology* 47:417–435.

Sharma, Karmini. 2023. Tackling Sexual Harassment: Short and Long-Run Experimental Evidence from India. Technical report Mimeo.

Siddique, Zahra. 2018. "Violence and female labor supply." *Available at SSRN 3273713* .

Sridhar, Kala Seetharam and Shivakumar Nayka. 2022. "Determinants of commute time in an indian city." *Margin: The Journal of Applied Economic Research* 16(1):49–75.

Srinivas, M. 2020. "Dial 100 on time in Telangana." *Telangana Today* .
URL: *https://telanganatoday.com/dial-100-on-time-in-telangana*

Sukhtankar, Sandip, Gabrielle Kruks-Wisner and Akshay Mangla. 2022. "Policing in patriarchy: An experimental evaluation of reforms to improve police responsiveness to women in India." *Science* 377(6602):191–198.

Sviatschi, Maria Micaela and Iva Trako. 2024. "Gender violence, enforcement, and human capital: Evidence from women's justice centers in Peru." *Journal of Development Economics* 168:103262.

Telep, Cody W, Renée J Mitchell and David Weisburd. 2014. "How much time should the police spend at crime hot spots? Answers from a police agency directed randomized field trial in Sacramento, California." *Justice Quarterly* 31(5):905–933.

Westfall, Peter H and S Stanley Young. 1993. *Resampling-based multiple testing: Examples and methods for p-value adjustment*. Vol. 279 John Wiley & Sons.

Wilson, Theodore, Ray Paternoster and Thomas Loughran. 2017. "Direct and indirect experiential effects in an updating model of deterrence: A research note." *Journal of Research in Crime and Delinquency* 54(1):63–77.

SEXUAL HARASSMENT IN PUBLIC SPACES AND POLICE PATROLS: EXPERIMENTAL EVIDENCE FROM URBAN INDIA

ONLINE APPENDIX

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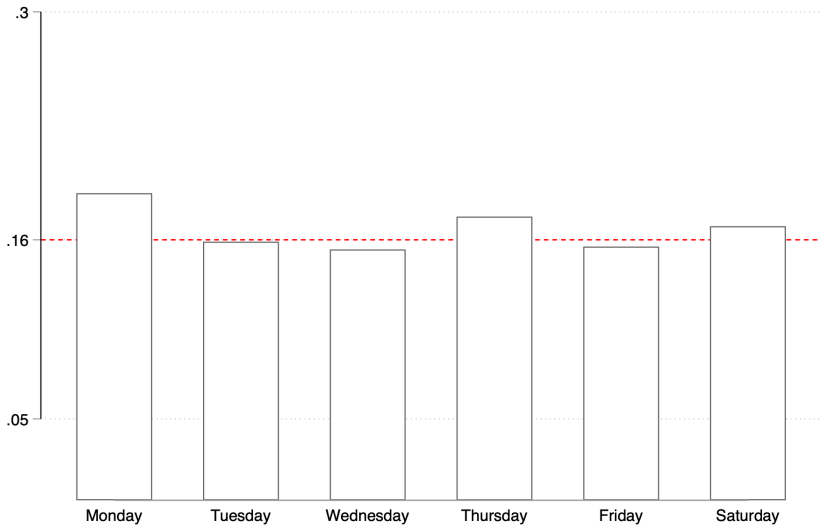
Nishith Prakash
Maria Micaela Sviatschi

A Appendix—Tables and Figures

List of Figures

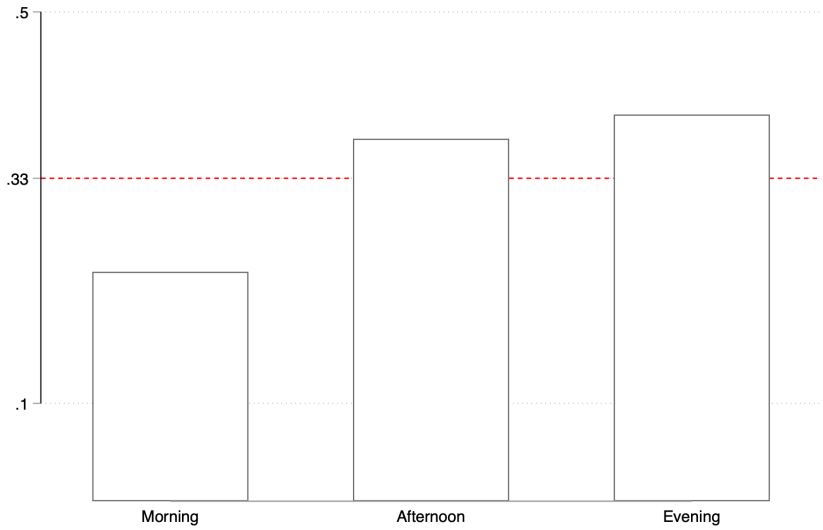
List of Tables

Figure A1: Balance in Police Distribution by Day of the Week



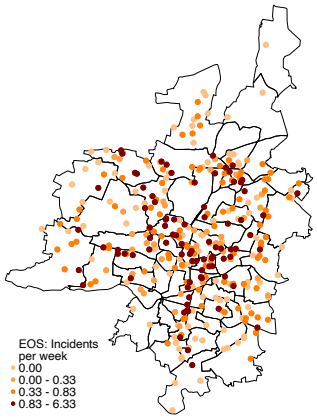
Note: The figure shows the distribution of police visits to hotspots by day of the week. Source: SHE Teams administrative records.

Figure A2: Balance in Police Distribution by Time of the Day

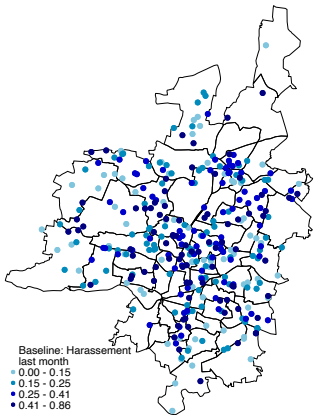


Note: The figure shows the distribution of police visits to hotspots by time of the day. Source: SHE Teams administrative records.

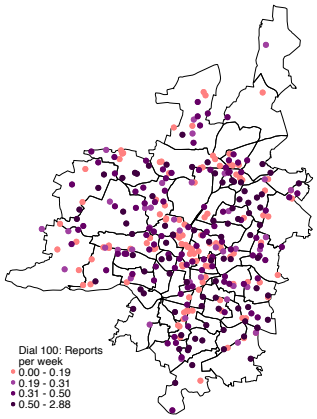
Figure A3: Measurement of Street Harassment at Hotspots at Baseline



(a) Enumerator Observation Survey



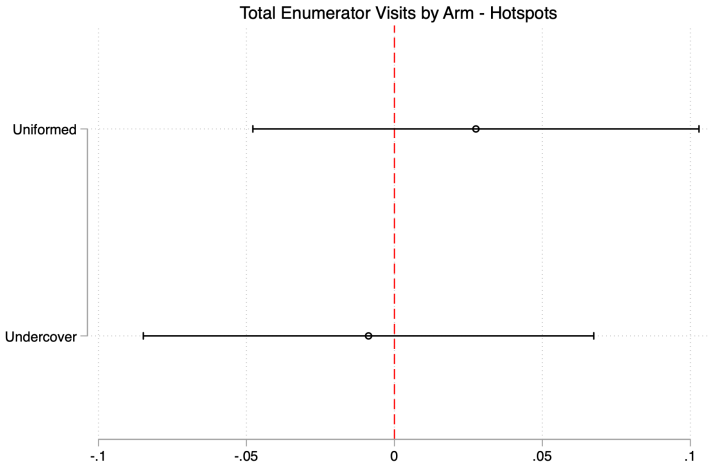
(b) Female Commuters' Survey



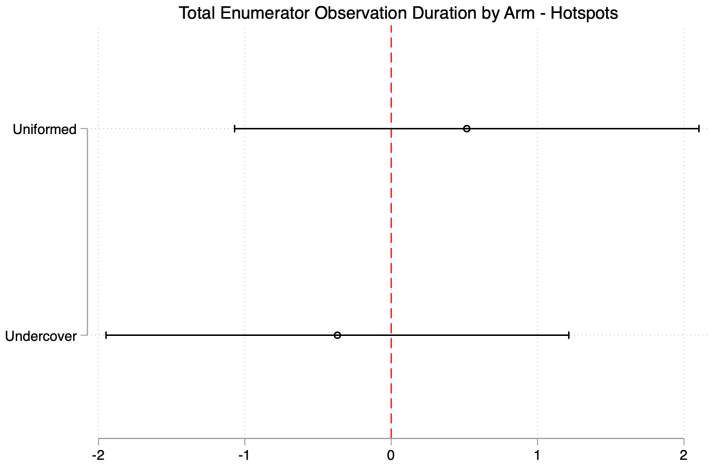
(c) Sexual Harassment Police Calls

Note: This figure displays the spatial distribution of the level of street harassment using three different measures. Panel (a) displays observed harassment, the primary outcome; panel (b) displays the rate of victimization using women's survey responses; and panel (c) displays the number of calls to "Dial 100" regarding sexual harassment. All measures use preintervention data and are collected at the hotspot level. Source: Enumerator Observation Survey, women's baseline survey, and Hyderabad City Police Dial 100 database.

Figure A4: Effect of the Intervention on Enumerator Visits and Observation Minutes



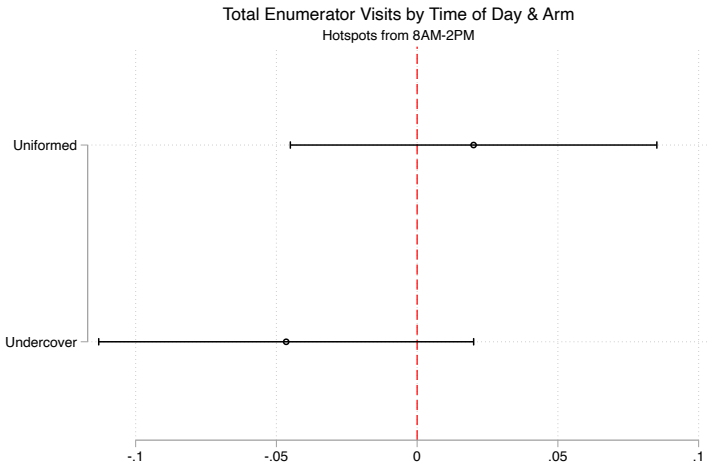
(a) Visits



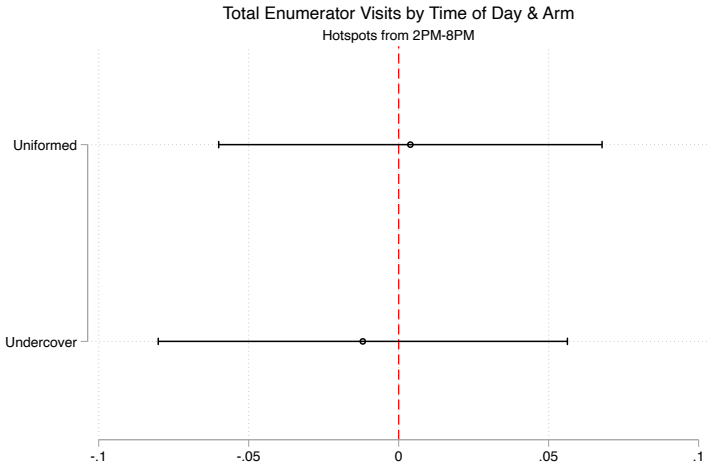
(b) Minutes

Note: The figures display coefficients δ_1, δ_2, and their respective 95% confidence intervals from regressions of the form $Y_{hw} = \beta_0 + \delta_1 Uniformed_h + \delta_2 Undercover_h + X_{hw} + \gamma_s + \epsilon_{hw}$ - following equation 1. In Figure (a), Y_{hw} is the number of visits by an enumerator to a hotspot-week. In Figure (b), Y_{hw} is the total duration (in minutes) of visits by enumerators to a hotspot-week. All regressions include strata fixed effects. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A5: Effect of the Intervention on Enumerator Visit Times



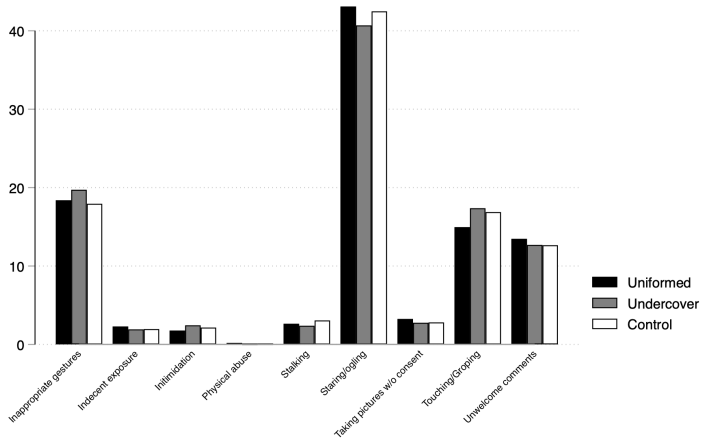
(a) Visits from 8AM to 2PM



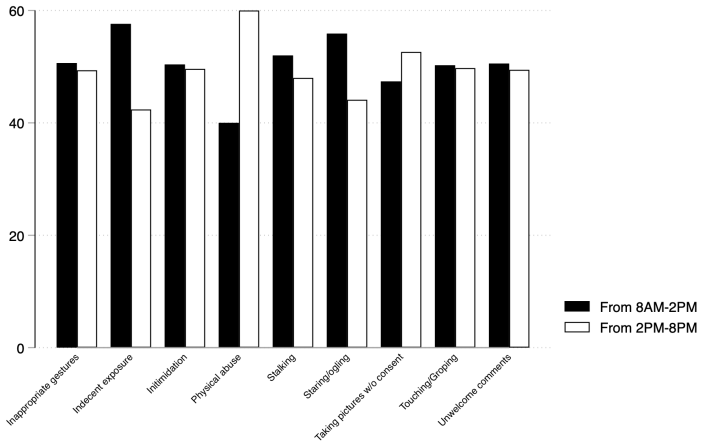
(b) Visits from 2PM to 8PM

Note: The figures display coefficients δ_1, δ_2, and their respective 95% confidence intervals from regressions of the form $Y_{hw} = \beta_0 + \delta_1 Uniformed_h + \delta_2 Undercover_h + X_{hw} + \gamma_s + \epsilon_{hw}$ - following Equation 1. In Figure (a), Y_{hw} is the number of visits by an enumerator to a hotspot-week between 8AM and 2PM. In Figure (b), Y_{hw} is the total duration (in minutes) of visits by enumerators to a hotspot-week between 2PM and 8PM. All regressions include strata fixed effects. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A6: Distribution of Street Sexual Harassment Incidents by Treatment Arm and Time



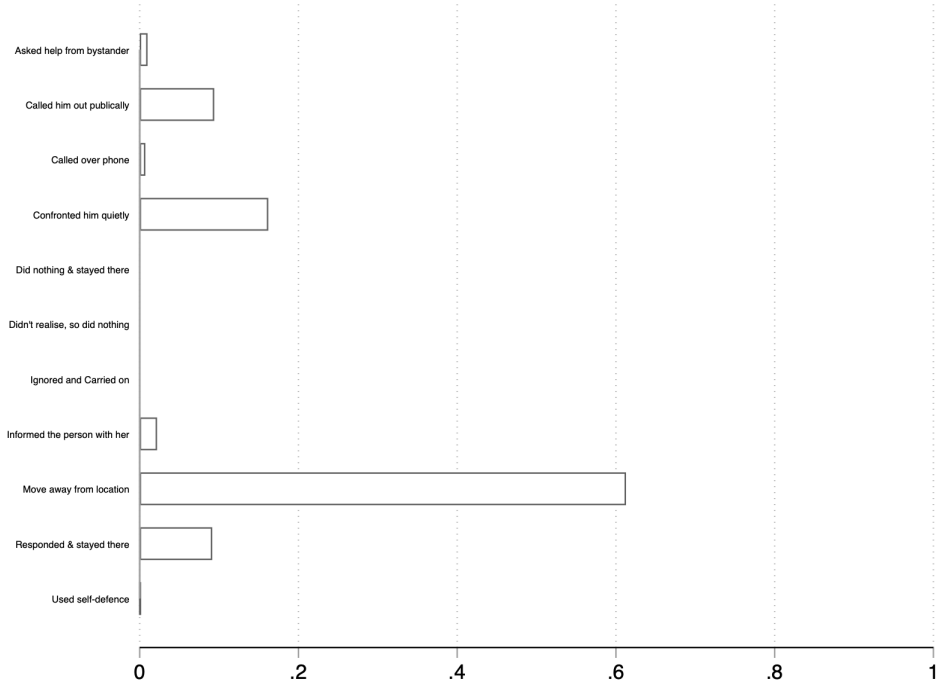
(a) Distribution by Treatment Arm



(b) Distribution by Time of the Day

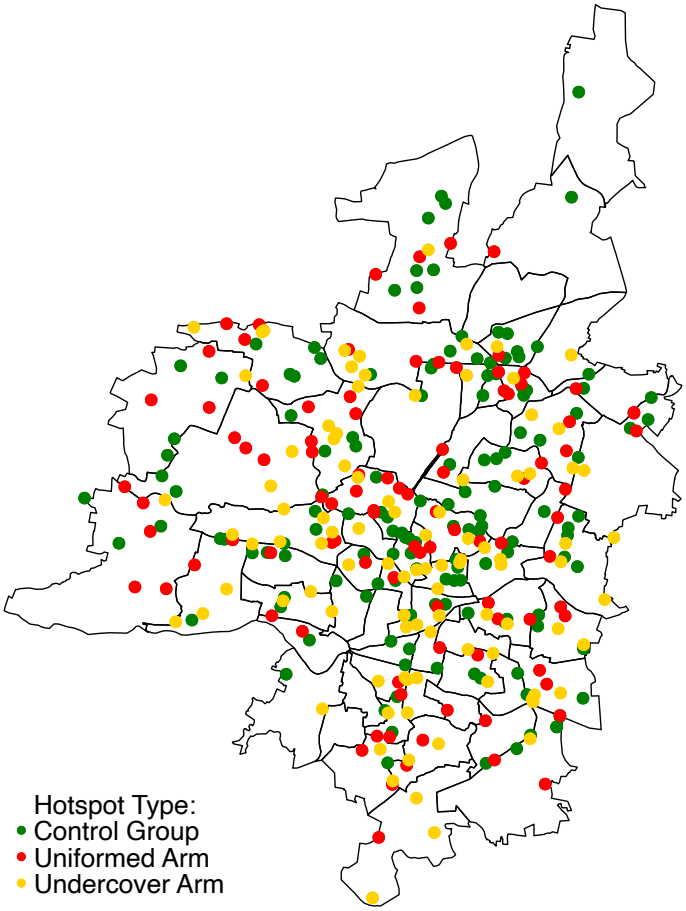
Note: The figures display the distributions of street sexual harassment incidents by treatment arm and time of the day. Source: Enumerator Observation Survey.

Figure A7: Distribution of Responses



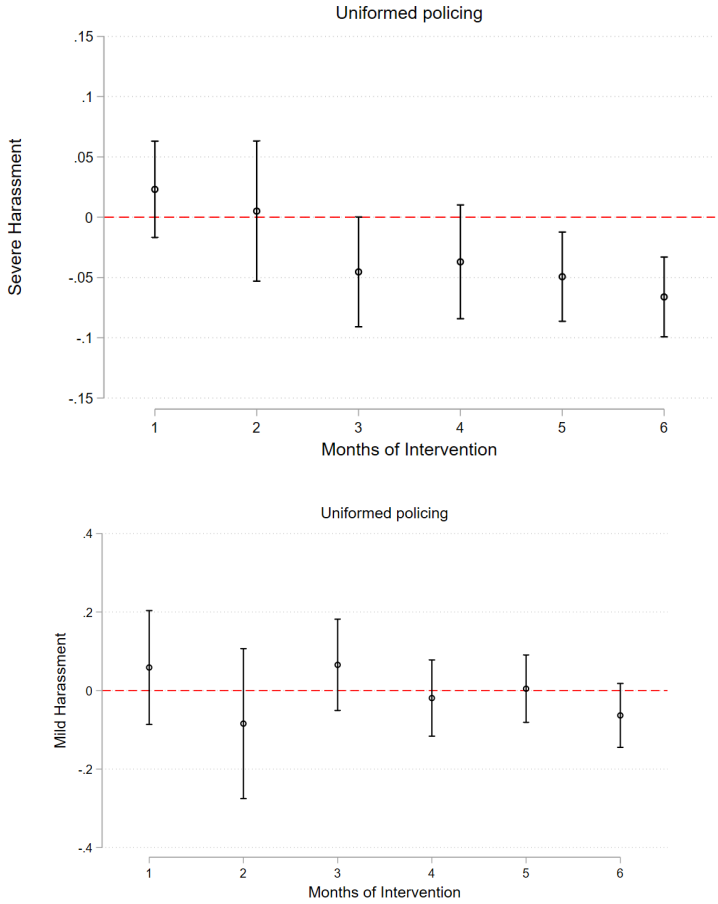
Note: The figures display the distribution of victims' responses as observed by the enumerators. Source: Enumerator Observation Survey.

Figure A8: Spatial Distribution of Hotspots and Experimental Assignment



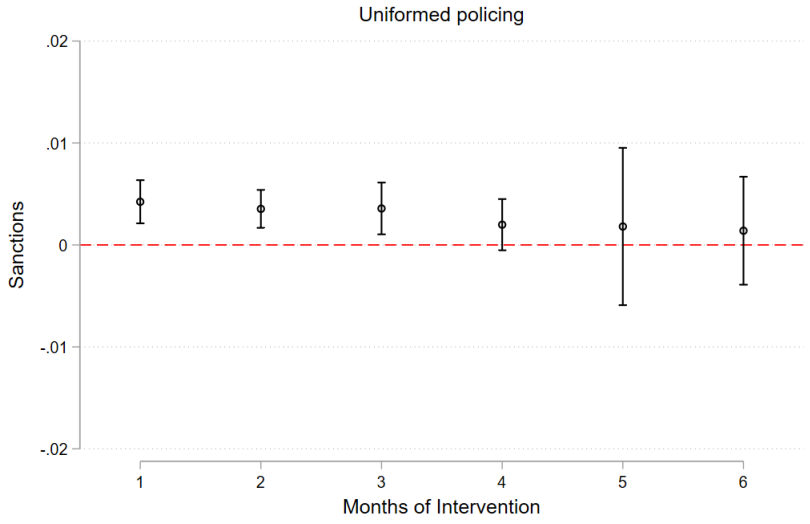
Note: The figures display the location of hotspots and the respective patrol areas within Hyderabad City Police jurisdiction.

Figure A9: Uniformed Policing and Harassment by Month of the Intervention



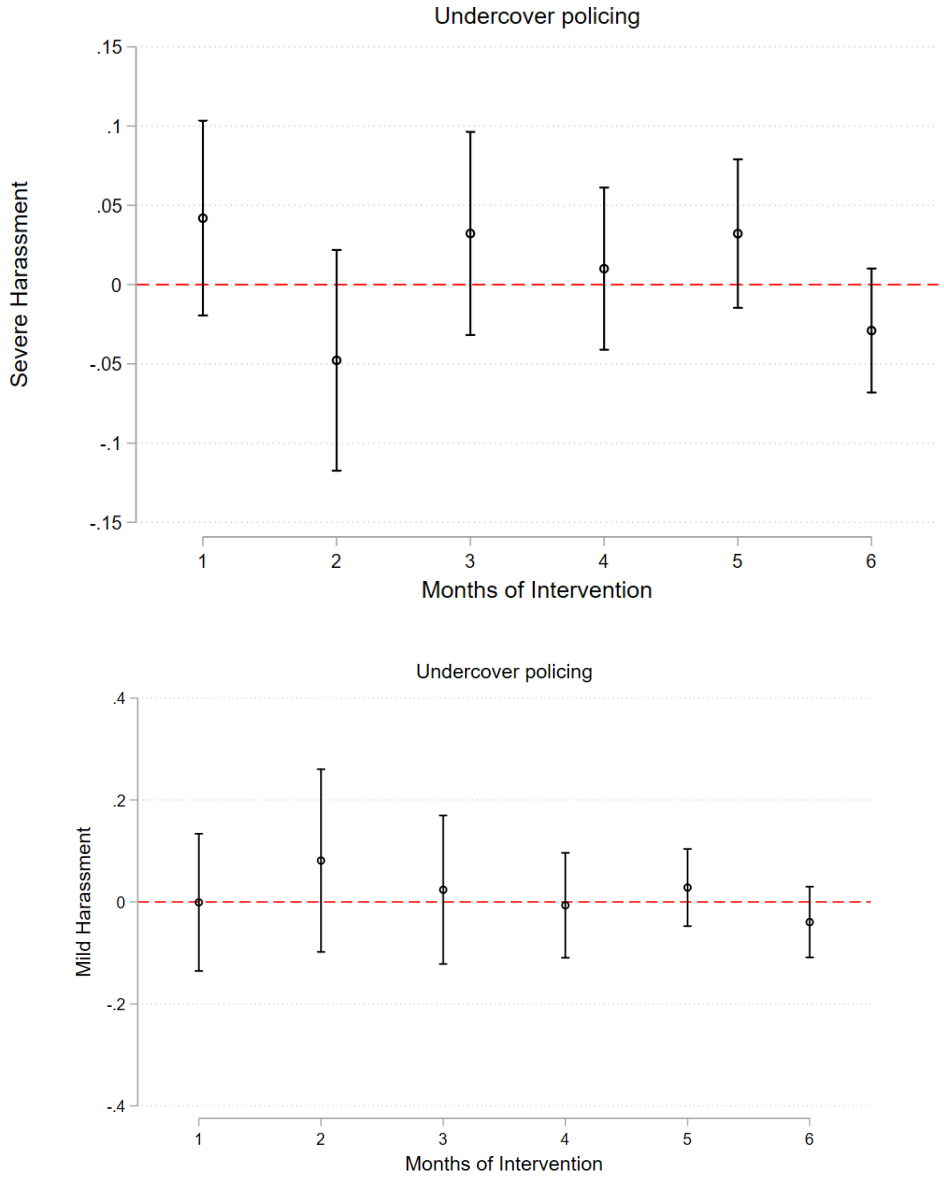
Note: The figure displays coefficients and 95% confidence intervals of the effect of the intervention by month. The dependent variable is the rate of victims observed in a hotspot week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. The regression follows 1 and interacts the Uniformed dummy with dummies that indicate the number of months, 1–6, after the intervention. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. We also include in the regression a variable to control for the Undercover arm. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A10: The Effects of Uniformed Patrols on Arrests per Visit by Month



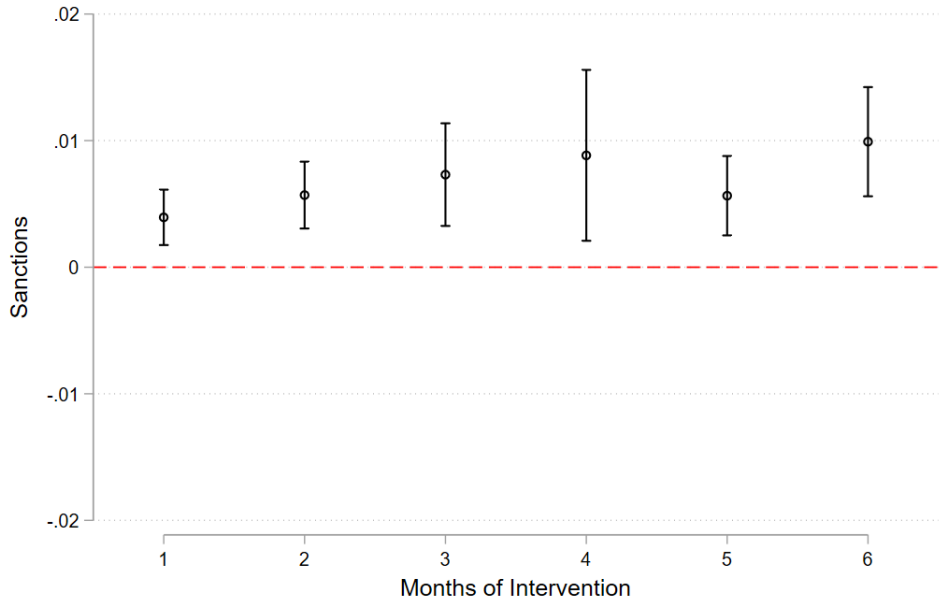
Note: The figure displays coefficients and 95% confidence intervals of the effect of the intervention by month. The dependent variable is the number of arrests per visit in a hotspot week. The regression follows 1 and interacts the Uniformed dummy with dummies that indicate the number of months, 1–6, after the intervention. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. We also include in the regression a variable to control for the Undercover arm. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A11: Undercover Policing and Harassment by Month of the Intervention



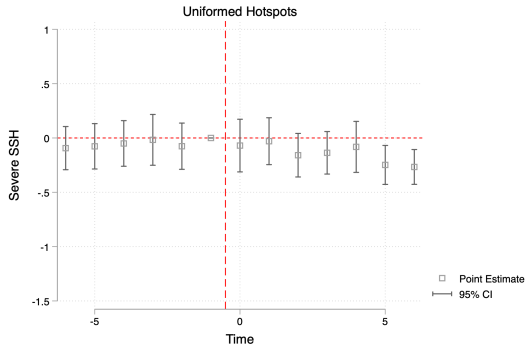
Note: The figure displays coefficients and 95% confidence intervals of the effect of the intervention by month. The dependent variable is the rate of victims observed in a hotspot week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. The regression follows 1 and interacts the Undercover dummy with dummies that indicate the number of months, 1–6, after the intervention. Each regression includes strata fixed effects. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. We also include in the regression a variable to control for the Uniform arm. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A12: Undercover Policing and Sanctions by Month of the Intervention

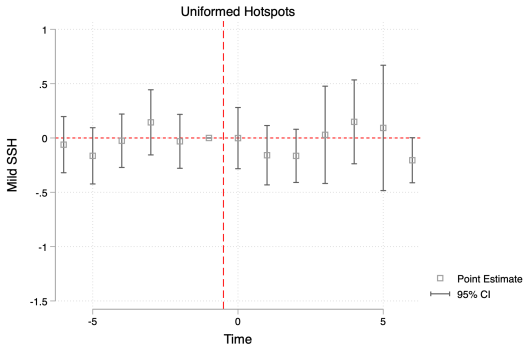


Note: The figure displays coefficients and 95% confidence intervals of the effect of the intervention by month. The dependent variable is the number of arrests per visit in a hotspot week. The regression follows equation 1 and interacts the Undercover dummy with dummies that indicate the number of months, 1–6, after the intervention. Each regression includes strata fixed effects. Undercover is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. We also include in the regression a variable to control for the Uniform arm. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

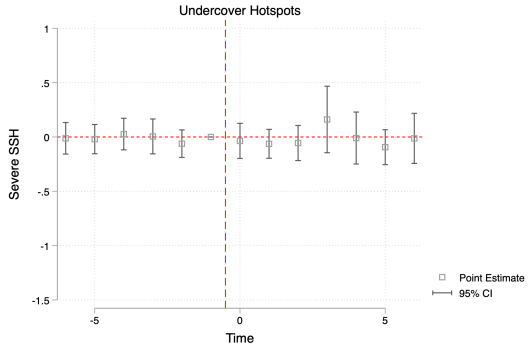
Figure A13: Street Sexual Harassment around the First Sanction, Week by Week.



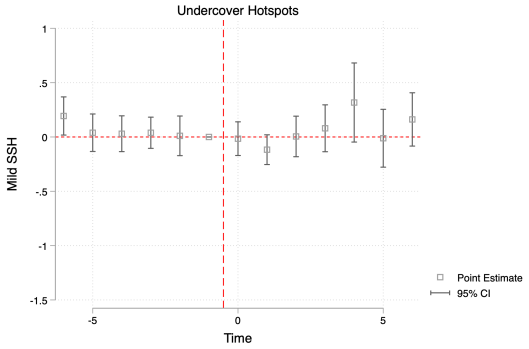
(a) Severe - Uniformed



(b) Mild - Uniformed



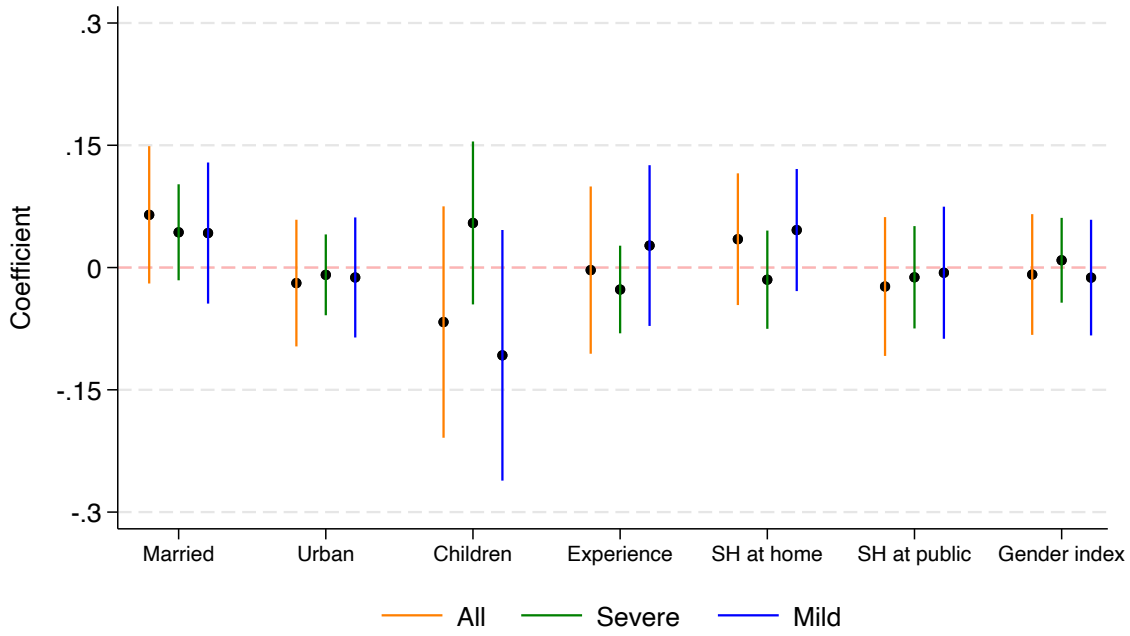
(c) Severe - Undercover



(d) Mild - Undercover

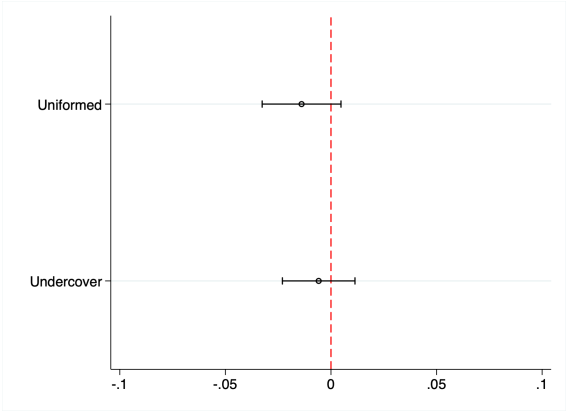
Note: The figure shows the coefficients and 95% confidence intervals for the impact of sanctions on street sexual harassment. Specifically, it presents event study estimates of the effects of a sanction on harassment. An "event" is defined as the first recorded sanction in each treated hotspot. The sample includes one treatment arm and the control arm. Control hotspots never receive sanctions so are pure controls in the regressions. Source: Enumerator Observation Survey and SHE Teams administrative records.

Figure A14: Heterogeneous Effects Across Enumerator Characteristics

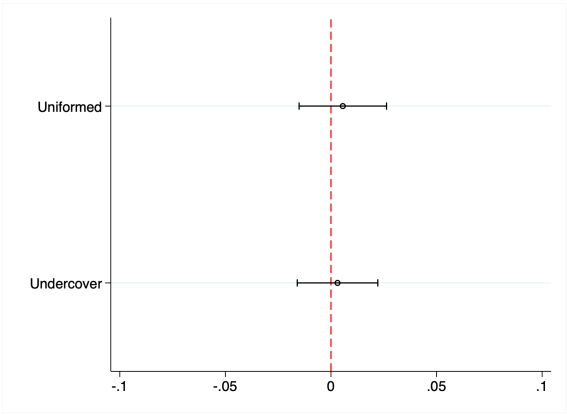


Note: This figure reports the interaction coefficient and its 95% confidence interval of two dummy variables X and Z. X is a dummy indicating if the enumerator has the characteristic X on the x-axis. That is, if she is married, lives in an urban area, has children, previous experience as an enumerator, has been a victim of sexual harassment, has witnessed it in public spaces, or if she is above the 75th percentile of the gender index created by us. Z is a dummy that takes the value of one if the hotspot was assigned to uniformed police, and zero if it was assigned to undercover police. The dependent variable is a dummy that takes the value 1 if the enumerator recorded any type of sexual harassment (orange), severe harassment (green), and mild harassment (blue); and zero otherwise. The regressions have strata fixed effects and are at the EOS-day level. Source: Enumerator Observation Survey.

Figure A15: Effect of Policing on Women's Response



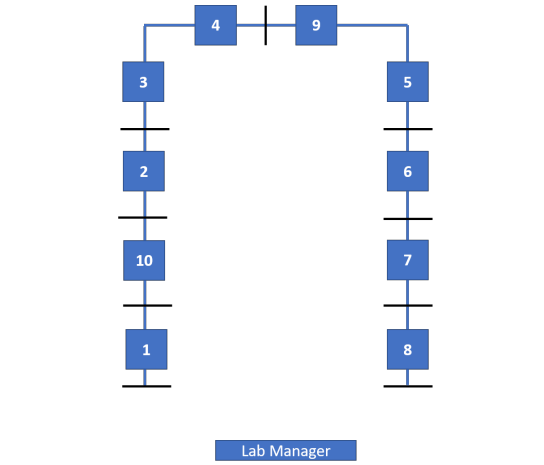
(a) Severe SH



(b) Mild SH

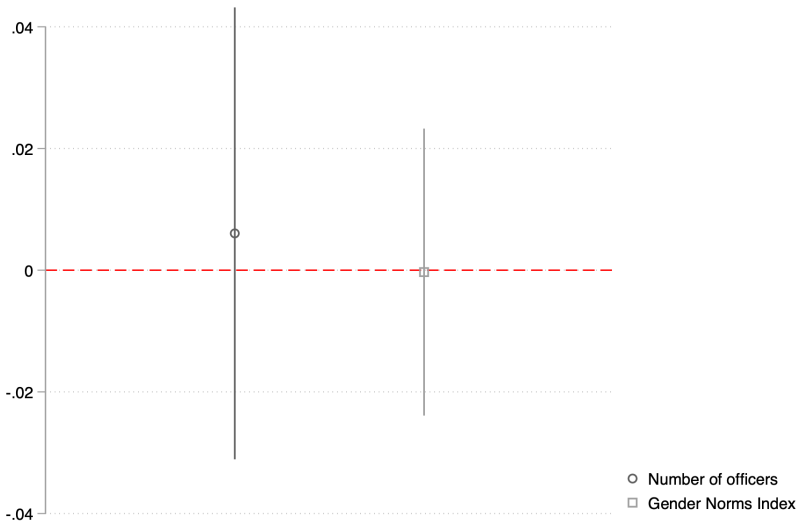
Note: The figures display coefficients δ_1, δ_2, and their respective 95% confidence intervals from regressions of the form $Y_{hw} = \beta_0 + \delta_1 Uniform_h + \delta_2 Undercover_h + X_{hw} + \gamma_s + \epsilon_{hw}$ - following Equation 1. In Figure (a), Y_{hw} is the number of responses (i.e., asking a bystander for help or fighting the perpetrator) to severe sexual harassment. In Figure (b), Y_{hw} is the number of responses to mild sexual harassment. We consider that a woman sought help from bystanders when she called on the phone, informed the person with her, or directly sought help from bystanders. We consider that she responded by fighting whenever she called the perpetrator out publicly, used self-defense, confronted him quietly, or responded and stayed there. All regressions include strata fixed-effects. Standard errors are clustered at the hotspot level. Source: Enumerator Observation Survey.

Figure A16: Lab Map and Setting



*Note:*The top figure displays the distribution of officers in the lab, and the bottom figure displays a photo of one of the sessions.

Figure A17: Balance in Number of Officers and Police Attitudes Across Uniformed and Undercover Hotspots



Note: The figures display coefficients δ, δ_2, and their respective 95% confidence intervals from regressions of the form $Y_{hw} = \beta_0 + \delta_U niformed_h + X_{hw} + \gamma_s + \epsilon_{hw}$ - following Equation 1. We only compare uniformed and undercover hotspots. The outcomes are the number of officers by team and the police attitudes index for the teams. All regressions include strata fixed effects. Standard errors are clustered at the hotspot level. Source: Administrative Records of Police Teams and Lab Experiment.

Table A1: Crime Type and Penalties by Indian Penal Code (Mild Crimes)

Crime Type	**Indian Penal Code (IPC) / Hyderabad City Police Act**	**Punishment**
	Mild Crimes	
Unwelcome comments / catcalling / whistling	*IPC 509:* Word, gesture or act intended to insult the modesty of a woman *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 509:* Whoever, intending to insult the modesty of any woman, utters any words, makes any sound or gesture, or exhibits any object, intending that such word or sound shall be heard, or that such gesture or object shall be seen, by such woman, or intrudes upon the privacy of such woman, [shall be punished with simple imprisonment for a term which may extend to three years, and also with fine]. *IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
	Mild Crimes	
Inappropriate gestures or facial expressions	*IPC 509:* Word, gesture or act intended to insult the modesty of a woman *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 509:* Whoever, intending to insult the modesty of any woman, utters any words, makes any sound or gesture, or exhibits any object, intending that such word or sound shall be heard, or that such gesture or object shall be seen, by such woman, or intrudes upon the privacy of such woman, [shall be punished with simple imprisonment for a term which may extend to three years, and also with fine]. *IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
	Mild Crimes	
Taking pictures without consent	*IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance. *Section 67 in The Information Technology Act, 2000:* Punishment for publishing or transmitting of material containing sexually explicit act, etc., in electronic form.	*IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees. *(contd. on next page)*

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
Mild Crimes		
Taking pictures without consent *(contd.)*		*Section 67 in The Information Technology Act, 2000:* Whoever publishes or transmits or causes to be published or transmitted in the electronic form, any material which is lascivious or appeals to the prurient interest or if its effect is such as to tend to deprave and corrupt persons who are likely, having regard to all relevant circumstances, to read, see or hear the matter contained or embodied in it, shall be punished on first conviction with imprisonment of either description for a term which may extend to three years and with fine which may extend to five lakh rupees and in the event of second or subsequent conviction with imprisonment of either description for a term which may extend to five years and also with fine which may extend to ten lakh rupees.

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
	Mild Crimes	
Staring/ogling	*IPC 509:* Word, gesture or act intended to insult the modesty of a woman. *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 509:* Whoever, intending to insult the modesty of any woman, utters any words, makes any sound or gesture, or exhibits any object, intending that such word or sound shall be heard, or that such gesture or object shall be seen, by such woman, or intrudes upon the privacy of such woman, [shall be punished with simple imprisonment for a term which may extend to three years, and also with fine]. *IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.

Table A1: Crime Type and Penalties by Indian Penal Code (Severe Crimes)

Crime Type	**Indian Penal Code (IPC) / Hyderabad City Police Act**	**Punishment**
	Severe Crimes	
Indecent exposure	*IPC 354A:* Sexual harassment and punishment for sexual harassment. *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 354A:* Any man who commits the offence shall be punished with rigorous imprisonment for a term which may extend to three years, or with fine, or with both. *IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
Serious Crimes		
Stalking	*IPC 354D:* Stalking *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 354D:* Whoever commits the offence of stalking shall be punished on first conviction with imprisonment of either description for a term which may extend to three years and shall also be liable to fine; and be punished on a second or subsequent conviction, with imprisonment of either description for a term which may extend to five years, and shall also be liable to fine. *IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
	Serious Crimes	
Touching/groping	*IPC 354:* Assault or criminal force to woman with intent to outrage her modesty. *IPC 354A:* Sexual harassment and punishment for sexual harassment. *IPC 354B:* Assault or use of criminal force to woman with intent to disrobe. *IPC 290:* Punishment for public nuisance in cases not otherwise provided for. *70C of Hyderabad City Police Act:* Uses any threatening, insulting or obscene words or gestures, likely to disturb public peace or cause public nuisance.	*IPC 354:* Whoever assaults or uses criminal force to any woman, intending to outrage or knowing it to be likely that he will thereby outrage her modesty, shall be punished with imprisonment of either description for a term which shall not be less than one year, but which may extend to five years, and shall also be liable to fine. *IPC 354A:* Any man who commits the offence shall be punished with rigorous imprisonment for a term which may extend to three years, or with fine, or with both. *IPC 354B:* Any man who assaults or uses criminal force to any woman or abets such act with the intention of disrobing or compelling her to be naked, shall be punished with imprisonment of either description for a term which shall not be less than three years, but which may extend to seven years, and shall also be liable to fine. *(contd. on next page)*

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
Serious Crimes		
Touching/groping *(contd.)*		*IPC 290:* Whoever commits a public nuisance in any case not otherwise punishable by this Code, shall be punished with fine which may extend to two hundred rupees. *70C of Hyderabad City Police Act:* Shall be punished with imprisonment for a term which may extend to eight days or with fine which may extend to fifty rupees.
Intimidation	*IPC 506:* Punishment for criminal intimidation. *IPC 509:* Word, gesture or act intended to insult the modesty of a woman. *IPC 109:* Punishment of abetment if the act abetted is committed in consequence and when no express provision is made for its punishment. *IPC 34:* Acts done by several persons in furtherance of common intention.	*IPC 506:* Whoever commits the offence of criminal intimidation shall be punished with imprisonment of either description for a term which may extend to two years, or with fine, or with both. *IPC 509:* Whoever, intending to insult the modesty of any woman, utters any words, makes any sound or gesture, or exhibits any object, intending that such word or sound shall be heard, or that such gesture or object shall be seen, by such woman, or intrudes upon the privacy of such woman, [shall be punished with simple imprisonment for a term which may extend to three years, and also with fine]. *(contd. on next page)*

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
Serious Crimes		
Intimidation *(contd.)*		*IPC 109:* Whoever abets any offence shall, if the act abetted is committed in consequence of the abetment, and no express provision is made by this Code for the punishment of such abetment, be punished with the punishment provided for the offence. *IPC 34:* When a criminal act is done by several persons in furtherance of the common intention of all, each of such persons is liable for that act in the same manner as if it were done by him alone. Note: *This provision, which creates 'joint culpability' for an act, deviates from a basic concept of criminal law, which states that a person is only responsible for crimes committed by himself and not for the actions of others.*

Crime Type	Indian Penal Code (IPC) / Hyderabad City Police Act	Punishment
	Serious Crimes	
Physical abuse	*IPC 354:* Assault or criminal force to woman with intent to outrage her modesty. *IPC 498A:* Husband or relative of husband of a woman subjecting her to cruelty.	*IPC 354:* Whoever assaults or uses criminal force to any woman, intending to outrage or knowing it to be likely that he will thereby outrage her modesty, shall be punished with imprisonment of either description for a term which shall not be less than one year, but which may extend to five years, and shall also be liable to fine. *IPC 498A:* Whoever, being the husband or the relative of the husband of a woman, subjects such woman to cruelty shall be punished with imprisonment for a term which may extend to three years and shall also be liable to fine.
Abduction	*IPC 362 and 363:* Abduction.	*IPC 362 and 363:* Whoever kidnaps any person from [India] or from lawful guardianship, shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine.

The Indian Penal Code is the official criminal code of India. It is a comprehensive code intended to cover all substantive aspects of criminal law. While the IPC does not classify crimes into mild and severe (which we use in this paper), offenses committed are classified into three categories: petty offenses, which have a prison sentence of less than 3 years under the IPC; serious offenses, which have a prison sentence of 3–7 years; and heinous offenses, which have a prison sentence of more than 7 years under the IPC. The crimes against women in the severe category used in this paper fall under serious offenses. We have not collected information on the heinous offenses. Furthermore, the

research team had detailed discussions with several Indian Police Service Officers (IPS) with 1 year of experience to 30 years of experience to validate our classification and to better understand our results.

Some excerpts from discussions with IPS officers:

"I think it is severe because it deeply impacts my sense of safety in a public place. It affects my decisions, life choices and leaves me feeling uncomfortable and suspicious at all times since such actions are so normalized"

"This shows reckless or intentional disregard of consequences. The person is almost sure that the woman would not complain, and even if she does, no action is going to be taken. If one doesn't fear the law in a public place, he is very likely to be more fearless in private."

"The very fact that it was done in a public place makes it so. A public place means everyone is watching you and you are yet bold enough to commit the crime. This makes it severe."

"Of course this is severe. However, these acts should be unambiguously defined and explicit to be proven in court."

Table A2: Stratification by Type and Size of Public Space

	Control	Uniform	Undercover	Total
	(1)	(2)	(3)	(4)
Educational - Normal	33	20	22	75
Educational - Large	3	2	2	7
Educational - Very Large	1	2	1	4
General - Normal	41	28	27	96
General - Large	5	2	4	11
General - Very Large	1	0	0	1
Residential - Normal	16	12	10	38
Residential - Large	2	1	2	5
Commuter - Normal	39	27	26	92
Commuter - Large	7	4	4	15
Commuter - Very Large	2	2	2	6
Total	150	100	100	350

Note: This table displays the distribution of hotspots by strata items by type of public space and size. The type of public space includes hotspots characterized as serving educational institutions, general public space, residential areas, or commuting areas.

Table A3: Balancing Tests—Hotspot Areas

Variable	Mean Uniform	Mean Undercover	Mean Control	Diff Uniform-Control	Diff Undercover-Control	Diff Uniform-Undercover
	(1)	(2)	(3)	(4)	(5)	(6)
Education Level: No Education	0.045	0.043	0.056	-0.012	-0.013	0.002
	(0.207)	(0.202)	(0.230)	(0.011)	(0.011)	(0.012)
Education Level: Up to High School	0.597	0.559	0.544	0.054**	0.017	0.041
	(0.491)	(0.497)	(0.498)	(0.026)	(0.027)	(0.030)
Education Level: Graduate and Post-Graduate	0.356	0.398	0.400	-0.043	-0.004	-0.045
	(0.479)	(0.490)	(0.490)	(0.027)	(0.027)	(0.031)
Occupation Status: Unemployed or Retired	0.036	0.029	0.042	-0.007	-0.013	0.008
	(0.187)	(0.168)	(0.200)	(0.010)	(0.009)	(0.010)
Occupation Status: Student	0.504	0.491	0.497	0.007	-0.005	0.011
	(0.500)	(0.500)	(0.500)	(0.031)	(0.031)	(0.034)
Occupation Status: Homemaker	0.115	0.104	0.087	0.028	0.017	0.012
	(0.319)	(0.305)	(0.283)	(0.019)	(0.016)	(0.018)
Occupation Status: Employed	0.345	0.375	0.372	-0.026	0.002	-0.031
	(0.476)	(0.484)	(0.483)	(0.024)	(0.026)	(0.029)
Marital Status: Never Married	0.703	0.654	0.692	0.011	-0.039	0.050
	(0.457)	(0.476)	(0.462)	(0.029)	(0.028)	(0.031)
Marital Status: Ever-Married	0.291	0.335	0.299	-0.007	0.037	-0.044
	(0.454)	(0.472)	(0.458)	(0.028)	(0.028)	(0.031)
Mode of Transport: Cab/Carpool/Auto	0.228	0.207	0.238	-0.006	-0.029	0.018
	(0.419)	(0.405)	(0.426)	(0.031)	(0.028)	(0.032)
Mode of Transport: Walking	0.182	0.191	0.200	-0.020	-0.006	-0.010
	(0.386)	(0.393)	(0.400)	(0.025)	(0.025)	(0.026)
Mode of Transport: Bus	0.779	0.745	0.738	0.043	0.004	0.037
	(0.415)	(0.436)	(0.440)	(0.028)	(0.029)	(0.029)
Mode of Transport: Local Train or Metro	0.049	0.070	0.063	-0.018	0.003	-0.019
	(0.215)	(0.255)	(0.244)	(0.015)	(0.019)	(0.017)
Mode of Transport: Two-Wheelers	0.087	0.081	0.089	-0.001	-0.007	0.007
	(0.282)	(0.273)	(0.284)	(0.017)	(0.016)	(0.019)
Mode of Transport: Private Car	0.022	0.012	0.019	0.003	-0.009	0.009
	(0.148)	(0.108)	(0.137)	(0.010)	(0.006)	(0.009)
Gender Norms: Index (Sum)	1.090	0.976	1.084	0.013	-0.156	0.104
	(1.346)	(1.410)	(1.461)	(0.175)	(0.211)	(0.190)
Victimization Rate (City)	0.324	0.360	0.359	-0.039	-0.000	-0.032
	(0.468)	(0.480)	(0.480)	(0.036)	(0.031)	(0.035)
Feel Safe at Hotspot	0.673	0.671	0.649	0.028	0.026	0.002
	(0.469)	(0.470)	(0.477)	(0.040)	(0.034)	(0.042)
Time Spent Outdoors (Hours)	7.148	7.242	7.183	-0.039	0.045	-0.095
	(2.435)	(2.610)	(2.506)	(0.153)	(0.148)	(0.163)
Takes at Least 1 Precaution	0.896	0.871	0.886	0.012	-0.014	0.023
	(0.305)	(0.335)	(0.318)	(0.024)	(0.025)	(0.028)
Observations	1,072	1,101	1,624	2,696	2,725	2,173

Note: This table displays a balance test showing means and difference in means between the different treatment arms and the control group in hotspot areas. Columns (1)-(3) shows means for uniformed, undercover, and control hotspots. Columns (4)-(6) display differences in means between pairs of hotspot types controlling for strata fixed effects. Standard errors are clustered at the hotspot level and are identified in brackets. Source: Women's baseline survey.

Table A4: Balancing Tests—Spillover Areas within 200m Radius from Hotspots

Variable	Mean Uniform	Mean Undercover	Mean Control	Diff Uniform-Control	Diff Undercover-Control	Diff Uniform-Undercover
	(1)	(2)	(3)	(4)	(5)	(6)
Education Level: No Education	0.059	0.059	0.038	0.023*	0.023*	-0.000
	(0.236)	(0.236)	(0.191)	(0.013)	(0.013)	(0.016)
Education Level: Up to High School	0.619	0.619	0.554	0.055*	-0.005	0.057
	(0.486)	(0.486)	(0.497)	(0.033)	(0.036)	(0.037)
Education Level: Graduate and Post	0.322	0.322	0.408	-0.078**	-0.021	-0.054
	(0.468)	(0.468)	(0.492)	(0.034)	(0.037)	(0.039)
Occupation Status: Unemployed or Retired	0.034	0.034	0.027	0.008	-0.009	0.017
	(0.180)	(0.180)	(0.162)	(0.010)	(0.009)	(0.010)
Occupation Status: Student	0.514	0.514	0.513	-0.011	-0.042	0.031
	(0.500)	(0.500)	(0.500)	(0.034)	(0.035)	(0.041)
Occupation Status: Homemaker	0.152	0.152	0.122	0.030	0.042	-0.010
	(0.360)	(0.360)	(0.327)	(0.025)	(0.026)	(0.031)
Occupation Status: Employed	0.300	0.300	0.337	-0.027	0.009	-0.038
	(0.458)	(0.458)	(0.473)	(0.030)	(0.031)	(0.035)
Marital Status: Never Married	0.638	0.638	0.636	-0.008	-0.023	0.015
	(0.481)	(0.481)	(0.481)	(0.035)	(0.034)	(0.040)
Marital Status: Ever-Married	0.351	0.351	0.357	0.004	0.024	-0.020
	(0.478)	(0.478)	(0.479)	(0.035)	(0.034)	(0.040)
Mode of Transport: Cab/Carpool/Auto	0.248	0.248	0.218	0.039	0.010	0.026
	(0.432)	(0.432)	(0.413)	(0.036)	(0.035)	(0.040)
Mode of Transport: Walking	0.171	0.171	0.169	0.004	0.005	0.001
	(0.377)	(0.377)	(0.375)	(0.029)	(0.031)	(0.036)
Mode of Transport: Bus	0.758	0.758	0.804	-0.049	-0.051*	0.005
	(0.429)	(0.429)	(0.397)	(0.033)	(0.030)	(0.038)
Mode of Transport: Local Train or Metro	0.091	0.091	0.041	0.051**	0.016	0.037
	(0.288)	(0.288)	(0.198)	(0.025)	(0.017)	(0.026)
Mode of Transport: Two-Wheelers	0.088	0.088	0.089	0.002	0.023	-0.024
	(0.284)	(0.284)	(0.285)	(0.020)	(0.022)	(0.024)
Mode of Transport: Private Car	0.026	0.026	0.025	0.001	0.010	-0.007
	(0.158)	(0.158)	(0.156)	(0.014)	(0.014)	(0.014)
Gender Norms: Index (Sum)	1.324	1.324	1.168	0.103	0.172	-0.061
	(1.596)	(1.596)	(1.485)	(0.187)	(0.174)	(0.209)
Victimization Rate (City)	0.284	0.284	0.314	-0.035	-0.029	0.004
	(0.451)	(0.451)	(0.464)	(0.042)	(0.044)	(0.046)
Feel Safe at Hotspot	0.799	0.799	0.796	0.001	0.025	-0.019
	(0.401)	(0.401)	(0.403)	(0.036)	(0.037)	(0.039)
Time Spent Outdoors (Hours)	7.153	7.153	7.317	-0.134	-0.557***	0.416*
	(2.701)	(2.701)	(2.399)	(0.181)	(0.196)	(0.222)
Takes at Least 1 Precaution	0.885	0.885	0.863	0.013	-0.047	0.058
	(0.319)	(0.319)	(0.344)	(0.028)	(0.036)	(0.036)
Observations	624	624	1,003	8,264	8,264	8,264

Note: This table displays a balance test showing means and difference in means between the different treatment arms and the control group in spillover areas within a 200 meter radius from a hotspot . Columns (1)-(3) shows means for uniformed, undercover, and control spillover areas. Columns (4)-(6) display differences in means between pairs of spillover areas types controlling for strata fixed effects. Standard errors are clustered at the hotspot level and are identified in brackets. Source: Women's baseline survey.

Table A5: Balancing Tests—Spillover Areas within 500m Radius from Hotspots

Variable	Mean Uniform	Mean Undercover	Mean Control	Diff Uniform-Control	Diff Undercover-Control	Diff Uniform-Undercover
	(1)	(2)	(3)	(4)	(5)	(6)
Education Level: No Education	0.067	0.067	0.050	0.021	0.031*	-0.008
	(0.251)	(0.251)	(0.218)	(0.016)	(0.018)	(0.021)
Education Level: Upto High School	0.611	0.611	0.518	0.094***	0.064*	0.027
	(0.488)	(0.488)	(0.500)	(0.036)	(0.036)	(0.038)
Education Level: Graduate and Post	0.320	0.320	0.431	-0.116***	-0.096***	-0.019
	(0.467)	(0.467)	(0.495)	(0.035)	(0.035)	(0.036)
Occupation Status: Unemployed or Retired	0.016	0.016	0.028	-0.013	0.000	-0.010
	(0.124)	(0.124)	(0.164)	(0.009)	(0.011)	(0.009)
Occupation Status: Student	0.497	0.497	0.461	0.037	0.015	0.015
	(0.500)	(0.500)	(0.499)	(0.037)	(0.039)	(0.043)
Occupation Status: Homemaker	0.117	0.117	0.134	-0.016	-0.015	-0.002
	(0.322)	(0.322)	(0.341)	(0.023)	(0.023)	(0.026)
Occupation Status: Employed	0.370	0.370	0.378	-0.008	-0.002	-0.001
	(0.483)	(0.483)	(0.485)	(0.034)	(0.034)	(0.038)
Marital Status: Never Married	0.605	0.605	0.597	0.007	0.017	-0.015
	(0.489)	(0.489)	(0.491)	(0.038)	(0.038)	(0.043)
Marital Status: Ever-Married	0.386	0.386	0.397	-0.011	-0.022	0.016
	(0.487)	(0.487)	(0.490)	(0.037)	(0.037)	(0.041)
Mode of Transport: Cab/Car-Pool/Auto	0.244	0.244	0.253	-0.017	-0.077**	0.062
	(0.430)	(0.430)	(0.435)	(0.038)	(0.034)	(0.038)
Mode of Transport: Walking	0.180	0.180	0.147	0.035	-0.005	0.041
	(0.384)	(0.384)	(0.355)	(0.030)	(0.025)	(0.032)
Mode of Transport: Bus	0.752	0.752	0.796	-0.052	0.017	-0.062*
	(0.432)	(0.432)	(0.403)	(0.035)	(0.028)	(0.037)
Mode of Transport: Local Train or Metro	0.067	0.067	0.045	0.018	-0.000	0.021
	(0.251)	(0.251)	(0.207)	(0.019)	(0.019)	(0.021)
Mode of Transport: Two-Wheelers	0.067	0.067	0.098	-0.032	-0.006	-0.021
	(0.251)	(0.251)	(0.298)	(0.021)	(0.022)	(0.023)
Mode of Transport: Private Car	0.028	0.028	0.019	0.002	0.013	-0.011
	(0.165)	(0.165)	(0.138)	(0.010)	(0.016)	(0.019)
Gender Norms: Index (sum)	1.450	1.450	1.102	0.282*	0.192	0.092
	(1.755)	(1.755)	(1.488)	(0.170)	(0.177)	(0.197)
Victimization Rate (City)	0.254	0.254	0.288	-0.036	-0.016	-0.019
	(0.436)	(0.436)	(0.453)	(0.038)	(0.042)	(0.046)
Feel Safe at Hotspot	0.809	0.809	0.806	0.005	0.011	-0.003
	(0.393)	(0.393)	(0.396)	(0.037)	(0.038)	(0.040)
Hours spent outdoors	7.261	7.261	7.180	0.111	-0.058	0.216
	(2.382)	(2.382)	(2.552)	(0.169)	(0.195)	(0.208)
Takes at least 1 precaution	0.806	0.806	0.879	-0.072**	-0.020	-0.054
	(0.396)	(0.396)	(0.326)	(0.031)	(0.031)	(0.036)
Observations	640	640	977	8,264	8,264	8,264

Note: This table displays a balance test showing means and difference in means between the different treatment arms and the control group in spillover areas within a 500 meter radius from a hotspot . Columns (1)-(3) shows means for uniformed, undercover, and control spillover areas. Columns (4)-(6) display differences in means between pairs of spillover areas types controlling for strata fixed effects. Standard errors are clustered at the hotspot level and are identified in brackets. Source: Women's baseline survey.

Table A6: Comparison of Spillover Areas to Other Public Spaces

Area	Number		Average	Male density			Female density		
	Sample	Potential	Mean	Sample	Potential	Diff	Sample	Potential	Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SA 200m	350	394	1.5	696.86	710.15	-13.29	394.70	404.59	-9.89
			[2.08]	[381.72]	[374.53]	(27.76)	[215.28]	[212.95]	(15.72)
SA 500m	350	931	7.1	706.70	698.32	8.38	400.13	397.42	2.71
			[7.37]	[381.15]	[418.19]	(25.61)	[214.73]	[237.26]	(14.50)

Note: This table compares public spaces in Hyderabad to the hotspots in our sample and the spillover areas. Column (1) shows the number of hotspots and spillover areas in our sample, Column (2) shows the public spaces around the hotspots, those within 200m and those within 500m radius. Column (3) gives the number of public spaces or potential spillover areas in different catchment areas. Columns (4) - (6) show the male density in the sample hotspots, public spaces overall and within the catchment areas and the difference between the mean density for the sample areas and the potential areas. Columns (7) - (9) do the former for data on density of women aged 15-49 years. Standard deviation of variables is shown in brackets and standard errors in parentheses. Source: Data for Good at Meta - High Resolution Population Density Maps and Demographic Estimates, available here: https://data.humdata.org/organization/meta?q=india&ext_page_size=25 *(last accessed: April 18, 2024)*.

Table A7: Effect of Policing Street Harassment Accounting for Enumerator Fixed Effects

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.019	-0.031**	0.012
	(0.024)	(0.013)	(0.019)
Undercover	0.011	0.009	0.001
	(0.024)	(0.014)	(0.018)
Observations	4,988	4,988	4,988
Mean of Dep. Var	0.471	0.129	0.342
Uniformed=Undercover (p-value)	0.250	0.002	0.598

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total forms of harassment and in Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata and enumerator fixed effects. We also include a dummy that takes the value of one for enumerators who visited a hotspot in a week and zero for those who did not. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it's a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it's a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Randomized inference p-values are displayed in squared brackets. Source: Enumerator Observation Survey.

Table A8: Effect of Policing on Street Harassment—Robustness Checks

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Panel A: Control for Week FE and Public Holidays			
Uniformed	-0.023	-0.033**	0.009
	(0.024)	(0.013)	(0.018)
Undercover	0.009	0.011	-0.002
	(0.025)	(0.014)	(0.018)
Panel B: Control for Week FE, Public Holidays, and Bus Strikes			
Uniformed	-0.024	-0.033**	0.009
	(0.024)	(0.013)	(0.018)
Undercover	0.009	0.011	-0.002
	(0.025)	(0.014)	(0.018)
Observations	4,988	4,988	4,988
Mean of Dep. Var.	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total form of harassment and in Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. In panel (a) we include week fixed effects, in panel (b) we add dummies (accounting for hotspot-weeks affected by public holidays such as religious festivals), and in panel (c) we include a dummy for hotspot-weeks affected by bus strikes. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it's a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it's a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A9: Effect of Policing on Street Harassment by Type of Incident

Type	Physical Abuse	Indecent Exposure	Pictures	Comments	Facial Expressions	Stalking	Touch/Groping	Intimidate	Staring
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Uniformed	0.002	0.001	0.002	0.004	0.006	-0.008	-0.036**	-0.008*	-0.002
	(0.001)	(0.005)	(0.007)	(0.015)	(0.017)	(0.005)	(0.017)	(0.005)	(0.023)
Undercover	0.000	-0.001	-0.002	-0.013	0.018	-0.005	0.004	0.002	-0.036
	(0.001)	(0.005)	(0.007)	(0.015)	(0.017)	(0.005)	(0.017)	(0.005)	(0.023)
Observations	4,988	4,988	4,988	4,988	4,988	4,988	4,988	4,988	4,988
Mean of Dep. Var / Control	0.000	0.022	0.032	0.146	0.178	0.027	0.169	0.020	0.368

Note: The main dependent variable is the rate of harassment observed in a hotspot-week by type of offense. This measure is the ratio of incidents of each type and total enumerator visits for a hotspot in a week. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it's a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it's a control group hotspot. Source: Enumerator Observation Survey.

Table A10: Police Observation and Treatment Arms

	Police Action (1)	Police Action (2)	Police Visits (3)
Uniformed	0.021*	0.004*	0.028*
	(0.012)	(0.002)	(0.016)
Undercover	-0.006	-0.001	0.011
	(0.008)	(0.001)	(0.017)
N	797	4,988	4,988
Mean of Dep. Var / Control	0.0130	0.00200	0.148
Uniformed=Undercover (p-value)	0.0100	0.0160	0.371

Note: In Column (1) the outcome is a dummy variable indicating whether, conditional on observing police presence and an instance of harassment, enumerators reported observing police action. It is missing for hotspots-weeks in which enumerators did not observe harassment or police presence. In Column (2), the outcome is the same as in Column (1), but we input 0 for hotspot-weeks in which enumerators did not observe police or harassment. In Column (3), the outcome is a dummy indicating whether the enumerators saw any police present. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A11: Effect of Police Patrols on Street Harassment Observational Exercises Happening Before a Police Patrol Takes Place.

	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.025	-0.033***	0.008
	(0.024)	(0.012)	(0.019)
Undercover	0.012	0.008	0.005
	(0.024)	(0.014)	(0.018)
Observations	4,744	4,744	4,744
Mean of Dep. Var / Control	0.462	0.127	0.334

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. The dependent variables are calculated in the subsample where enumerators conduct the EOS exercise before the police conducts patrols. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects and enumerator fixed-effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A12: Effect of Police Patrols on Street Harassment Controlling for the Share of Overlaps with Police Patrols.

	Sexual Harassment in Public Space		
	(1)	(2)	(3)
	Total	Severe	Mild
Uniformed	-0.029	-0.036***	0.007
	(0.025)	(0.013)	(0.019)
Undercover	-0.010	0.005	-0.014
	(0.026)	(0.014)	(0.018)
N	4,988	4,988	4,988
R-squared	0.027	0.025	0.018
Mean of Dep. Var / control	0.471	0.129	0.342
Strata FE	Yes	Yes	Yes

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. Each regression also controls for the share of police patrols that overlap with enumerators visits. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A13: Effect of Police Patrols on Street Harassment Net of Police Patrols.

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.036	-0.036***	-0.000
	(0.025)	(0.013)	(0.019)
Undercover	-0.010	0.005	-0.015
	(0.026)	(0.014)	(0.018)
Observations	4,822	4,822	4,822
Mean of Dep. Var / Control	0.464	0.127	0.337

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. We exclude from the sample observations that took place while the police was patrolling. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A14: Effect of Police Patrols on Street Harassment Before Observed Police Action

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.012	-0.041***	0.029
	(0.033)	(0.015)	(0.026)
Undercover	0.021	0.028	-0.006
	(0.037)	(0.018)	(0.028)
N	2,672	2,672	2,672
Mean of Dep. Var / Control	0.525	0.129	0.395
Uniformed=Undercover (p-value)	0.378	0.000	0.227

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata-fixed effects. The table only includes treated hotspot-weeks before enumerators observe police presence. We also include hotspots where no police presence was ever recorded by the enumerators. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. The table only includes treated hotspot-weeks before enumerators observe police presence. We also include hotspots where no police presence was ever recorded by the enumerators. Source: Enumerator Observation Survey.

Table A15: Effects of Police Patrols on Street Harassment when Enumerators and Police Officers do not Overlap. Estimation Sample Does not Contain Weeks in Which Enumerators Reported Observing Police.

	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.025	-0.031**	0.006
	(0.025)	(0.013)	(0.019)
Undercover	0.005	0.017	-0.012
	(0.029)	(0.016)	(0.021)
N	4,191	4,191	4,191
Mean of Dep. Var / Control	0.476	0.125	0.352
Uniformed=Undercover (p-value)	0.313	0.001	0.413

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. The sample excludes the weeks in which enumerators reported observation of any police. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A16: Effects of Police Patrols on Street Harassment controlling for the Ratio of the Number of Times Enumerators Saw Police Actions in a Week to Number of Enumerator Visits.

	Sexual Harassment in Public Space		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.032	-0.037***	0.005
	(0.025)	(0.013)	(0.019)
Undercover	-0.009	0.006	-0.015
	(0.026)	(0.014)	(0.018)
N	4,988	4,988	4,988
Mean of Dep. Var / Control	0.471	0.129	0.342
Uniformed=Undercover (p-value)	0.395	0.001	0.364

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. We control for the ratio between total observed police actions and enumerator visits per hotspot-week. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. We control for the ratio between total observed police actions and enumerator visits per hotspot-week. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A17: Effect of Police Patrols on Street Harassment using Dependent Variables Net of Police Action.

	(1) Total	(2) Severe	(3) Mild
Uniformed	-0.032	-0.038***	0.003
	(0.025)	(0.013)	(0.019)
Undercover	-0.009	0.006	-0.015
	(0.026)	(0.014)	(0.018)
N	4,988	4,988	4,988
Mean of Dep. Var / Control	0.470	0.128	0.341
Uniformed=Undercover (p-value)	0.399	0.000	0.410

Note: The main dependent variable is the rate of harassment observed in a hotspot-week. The sample is limited to using only visits where there was no overlap to calculate the rate of victimization per week. This measure is the ratio of identified victims of severe or mild sexual harassment and total enumerator visits for a hotspot in a week. Severe victimization includes victims of stalking, forceful unwanted touching/groping, intimidation, indecent exposure, physical abuse, and abduction. Mild victimization consists of victims of unwelcome comments/ catcalling/ whistling, inappropriate gestures and facial expressions, taking photographs without consent, and ogling. Total harassment victimization is the sum of the number of victims of severe and mild forms of harassment. In Column (1) we present the rate per total harassment and in Columns (2) and (3) we display the rate by severe and mild harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

A Other Mechanisms

Displacement Effects. Table A18 examines whether uniformed patrols reduced severe forms of harassment by displacing potential criminals to spillover areas (public areas within 200m and 500m from the hotspots).[38] We find no observed changes in harassment in these locations. In particular, the point estimates for spillover effects are small and close

[38]We collected data from one spillover area, each within a 200m and 500m radius from the hotspot. The selected spillover areas are similar to other potential public spaces within these catchment radii, as shown in Table A6.

to zero for severe forms of harassment, with a 95 percent confidence interval for spillovers of severe harassment (–0.027, +0.027) for a 200m radius catchment and (–0.022, +0.029) for a 500m radius catchment. As argued by Hoenig and Heisey (2001), these confidence intervals, rather than post-experiment power calculations, are appropriate for interpreting statistically insignificant results and show the range of possible effect sizes not refuted by our data, thereby enabling us to rule out large spillover effects in public areas within 200m and 500m from the treatment.

Table A19 examines sexual harassment observed by enumerators while commuting through hotspots. We find no evidence of an increase in harassment, indicating that perpetrators may not move away from treated hotspots to nearby locations. Last, Table A20 shows that the intervention did not change footfall in hotspots or spillover areas.

These results align with the high stickiness of commuting routes: at baseline, we find that 86 percent of individuals traveled daily through the hotspots in which they were interviewed. Therefore, since potential perpetrators pass through the same hotspot every day and it is costly to change their daily travel route, they are more likely to be deterred by police visibility rather than displaced. Furthermore, since street harassment crimes are impromptu, perpetrators are less likely to change routes just to commit them. This result corresponds with evidence presented in other settings (Braga et al., 2019). In general, crime displacement is less likely to occur for expressive offenses, such as violent crimes.[39]

One potential concern is that perpetrators could move to other hotspots that we cannot measure. However, we believe this is less likely to occur, as our 350 hotspots cover the universe of sexual harassment hotspots identified by the police. Moreover, we do not believe that harassment could move to non-public spheres since most of the perpetrators are unknown to victims. Nevertheless, testing for spillover effects is extremely challenging (Blattman et al., 2021). For example, in our setting, we cannot measure them outside of our sample nor analyze it if new hotspots emerged after the intervention ended.

Reporting Effects. To test if a change in reporting behavior explains the reduction in severe sexual harassment, we use our data on police reports received via "Dial 100" calls. We estimate the model using equation 1, in which the main dependent variable is the sum of calls to report sexual harassment from hotspot h in week w. Table A21 presents the results, showing no evidence that increased uniformed or undercover police presence changed the willingness of victims or bystanders to report sexual harassment.[40] Thus, victim-driven change in the probability of reporting sexual harassment may not explain the changes in severe harassment when police were visible.

Other Crimes. Using police report data on other types of crime (e.g., accidents and property crimes), we analyze whether police presence affects the reporting of crimes unrelated to sexual harassment. The results, shown in Table A22, suggest no effect of police

[39]Experimental evidence on crime displacement is mixed as displacement depends on the type of crime, location, and policing strategies (Banerjee et al., 2019).

[40]Uniformed police officers could indeed reduce their reporting over time due to a reduction in incidents, while reports could also increase as citizens become aware that police are targeting these crimes. Therefore, we may observe no effect because the two effects go in opposite directions. To rule out this possibility, we also examine effects at the beginning of the intervention, and find no effects on reporting.

presence on other crimes. This result could be explained by the fact that SHE Teams officers did not specifically target these types of crime, and they were not as common in these hotspots (at baseline, only 2 percent of women reported property offenses in these hotspots in the previous month). Additionally, it suggests that other forms of crime did not increase in areas patrolled by SHE Teams officers.

Gender Norms at Hotspots. We also analyze whether the observed effects are primarily driven by changes in victim or bystander behavior in hotspots where female commuters showed less tolerance toward sexual harassment. In hotspots where citizens responded more harshly to street harassment, we expect not only larger effects at baseline but also increased pressure on the police to address harassment. To analyze these mechanisms, we construct a gender norms index and interact it with our main treatments. The results, shown in Table A23, indicate that the effects are not driven by hotspots with attitudes more supportive of women at baseline. While we observe a larger point estimate in these areas, the difference with less progressive areas is not significant. These results suggest that the effects are less likely due to changes in the behavior of victims and bystanders or to public pressure on uniformed police to act against severe cases of harassment.

Table A18: Effect of Policing on Street Harassment within 200m and 500m of the Intervention

	Sexual Harassment in Public Spaces					
	Total		Severe		Mild	
	200m	500m	200m	500m	200m	500m
	(1)	(2)	(3)	(4)	(5)	(6)
Uniformed	-0.017	-0.016	0.000	-0.004	-0.017	-0.012
	(0.024)	(0.025)	(0.014)	(0.013)	(0.018)	(0.019)
Undercover	0.002	0.010	-0.005	-0.008	0.007	0.018
	(0.026)	(0.024)	(0.015)	(0.013)	(0.019)	(0.018)
Observations	4,683	4,696	4,683	4,696	4,683	4,696
Mean of Dep. Var	0.404	0.373	0.110	0.096	0.294	0.277
Uniformed=Undercover (p-value)	0.472	0.351	0.719	0.773	0.215	0.152

Note: The main dependent variable is the rate of victims observed in a spillover-area week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to an area in a week. Columns (1), (3), and (5) present results for areas that are 200m away from a hotspot, and Columns (2), (4), and (6) for areas that are 500m away from a hotspot. In Columns (1) and (2), we present the rate per total forms of harassment; in Columns (3) and (4), we display the rate by severe harassment; and in Columns (5) and (6), we present results for mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot serving a spillover area is in the uniformed treatment arm and zero if it's a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot serving a spillover area is in the undercover treatment arm and zero if it's a control group hotspot. Standard errors are clustered at the area level and are in brackets. Source: Enumerator Observation Survey.

Table A19: Sexual Harassment During Enumerator's Travel

	Sexual Harassment type		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed	-0.018	-0.009	-0.009
Undercover	-0.007	-0.007	-0.000
N	4971	4971	4971
Mean of dep. var.	0.254	0.126	0.128

Note: This table reports sexual harassment observed by enumerators while commuting through hotspots. Columns 1-3 report sexual harassment observed by enumerators while they were commuting through any hotspot, the trip is tagged to the origin hotspot. We consider all types of commuting methods except Rickshaws (due to the difficulty for the enumerator to observe others' behaviors using this method) and unregistered methods of travel. Our sample accounts for 95% of the total observations. We include strata fixed effects and clustered standard errors at the hotspot level. Data source: Enumerator Observation Survey.

Table A20: Effect of Police Patrolling on Footfall

	Hotspot		200m Spillover		500m Spillover	
	(1)	(2)	(3)	(4)	(5)	(6)
Uniformed	-0.060	-0.057	-0.071	-0.062	-0.050	-0.056
	(0.054)	(0.052)	(0.060)	(0.059)	(0.057)	(0.056)
Undercover	0.034	0.051	-0.004	-0.006	0.102**	0.085
	(0.059)	(0.057)	(0.058)	(0.057)	(0.052)	(0.051)
Observations	4,988	4,988	4,683	4,683	4,696	4,696
Mean of Dep. Var / control	3.586	3.586	3.297	3.297	3.247	3.247
Week FE	No	Yes	No	Yes	No	Yes
Public Holidays/Bus Strike	No	Yes	No	Yes	No	Yes
Uniformed=Undercover (p-value)	0.122	0.071	0.300	0.374	0.014	0.022

Note: The main dependent variable is the observed footfall by hotspot week (in logs). In Columns (1)–(2), we present results for the hotspot areas; in Columns (3)–(4), from spillover areas that are 200m away from the hotspot; and in Columns (5)–(6), from spillover areas that are 500m away from the hotspot. This measure takes values from 0 to 1,000 and is the result of the enumerators' observation and coding of the question, "How many people are at the location?". In Columns (1), (3), and (5), we present regressions controlling for the number of visits per week. In Columns (2), (4), and (6), we control for week fixed effects and dummies for weeks that were affected by a public holiday or bus strikes. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it's a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it's a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A21: Effect on "Dial 100" Calls—Sexual Harassment

	Total Sexual Harassment Calls		
	(1)	(2)	(3)
Uniformed	-0.039	-0.039	-0.035
	(0.048)	(0.048)	(0.047)
Undercover	0.043	0.043	0.042
	(0.058)	(0.058)	(0.057)
Observations	9,450	9,450	9,450
Mean of Dep. Var. / Control	0.404	0.404	0.404
Uniformed=Undercover (p-value)	0.170	0.171	0.184
Week FE	No	Yes	Yes
Public Holiday	No	No	Yes
Bus Strike	No	No	Yes

Note: The main dependent variable is the sum of calls related to sexual harassment offenses per week and per hotspot. The main independent variables are a dummy that takes the value of one for hotspots that are assigned to receive patrols in uniform—Uniformed—and a dummy that takes the value of one for hotspots that are assigned to receive undercover patrols—Undercover. All regressions include strata fixed effects. In Column (2), we include week fixed effects and in Column (3), we include a dummy for weeks that were affected by a public holiday or bus strikes. Standard-errors are clustered at the hotspot level. Source: Hyderabad City Police Dial 100 database.

Table A22: Effect on "Dial 100" Calls—Other Crimes

	Total Other Crimes	Accidents	Physical Offenses	Nuisances	Property Offenses
	(1)	(2)	(3)	(4)	(5)
Uniformed	-0.221	-0.028	-0.020	-0.052	-0.035
	(0.279)	(0.045)	(0.036)	(0.069)	(0.032)
Undercover	0.159	-0.021	0.012	0.064	0.006
	(0.303)	(0.049)	(0.039)	(0.071)	(0.035)
Observations	9,450	9,450	9,450	9,450	9,450
Mean of Dep. Var. / Control	4.380	0.586	0.700	1.048	0.369
Uniformed=Undercover (p-value)	0.246	0.897	0.453	0.138	0.268
Week FE	Yes	Yes	Yes	Yes	Yes
Public Holiday	Yes	Yes	Yes	Yes	Yes
Bus Strike	Yes	Yes	Yes	Yes	Yes

Note: The main dependent variable is the sum of calls related to non-sexual harassment crimes per week and per hotspot. The main independent variables are a dummy that takes the value of one for hotspots that were assigned to receive patrols in uniform—Uniformed—and a dummy that takes the value of one for hotspots that were assigned to receive undercover patrols—Undercover. All regressions include strata fixed effects and controls for week fixed effects, public holidays, and bus strike weeks. Standard errors are clustered at the hotspot level. Source: Hyderabad City Police Dial 100 database.

Table A23: Heterogeneity Based on Female Commuters' Gender Norms

	Sexual Harassment in Public Spaces		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed X Citizens' Attitudes	-0.016	-0.036	0.020
	(0.058)	(0.030)	(0.042)
Uniformed	-0.026	-0.025	-0.001
	(0.030)	(0.015)	(0.023)
Undercover X Citizens' Attitudes	0.004	-0.015	0.020
	(0.058)	(0.034)	(0.040)
Undercover	-0.011	0.010	-0.021
	(0.031)	(0.016)	(0.022)
Total Effect of Citizens Attitudes—Uniform	-0.041	-0.061**	0.019
	(0.049)	(0.026)	(0.035)
Total Effect of Citizens Attitudes—Undercover	-0.006	-0.005	-0.001
	(0.049)	(0.029)	(0.033)
Observations	4,988	4,988	4,988
Mean of Dep. Var / control	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total form of harassment, and in Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Citizens' Attitudes is a measure of the women's gender norms index. The gender norms index was constructed at the individual level using women's baseline responses on a 12-item scale. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and women's baseline survey.

Table A24: Street Harassment and Women's Mobility: Robustness Checks.

Share of Victims Moving Location due to Sexual Harassment in Public Spaces		
	Severe	Mild
	(1)	(2)
Panel A: Imputing Zero to the Weeks-Hotspots With no Victims		
Uniformed	-0.016***	0.013
	(0.006)	(0.012)
Undercover	0.002	0.008
	(0.007)	(0.011)
Observations	4,988	4,988
Mean of Dep. Var / Control	0.037	0.123
Uniformed=Undercover (p-value)	0.008	0.721
Panel B: Dependent Variable in Levels		
Uniformed	-0.018**	0.020
	(0.008)	(0.018)
Undercover	0.006	0.017
	(0.009)	(0.017)
Observations	4,988	4,988
Mean of Dep. Var / Control	0.044	0.188
Uniformed=Undercover (p-value)	0.004	0.878

Note: Panel A reports the impact of street harassment on women's mobility behavior as a response to severe or mild harassment. The dependent variable is the ratio between women who who moved to another block, fled, or avoided an area within the hotspot and the total number of victims of severe or mild sexual harassment. We input zeros in the dependent variable in hotspots—weeks where no instance of severe or mild sexual harassment was detected. In panel B, we consider the level, rather than the share, of women who changed their mobility behavior in response to street harassment. We present this variable for victims of severe harassment in Column (1) and for victims of mild harassment in Column (2). Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and women's baseline survey.

Table A25: Womens' Mobility and Severe Sexual Harassment Rates

Share of Victims Moving Location Due to Severe SSH		
	OLS	IV
	(1)	(2)
Severe-to-Total Ratio	0.003***	0.006***
	(0.000)	(0.002)
Observations	4,988	4,988
Mean of Dep. Var.	0.031	0.031
Instrument	-	Uniformed
F-Stat.	-	17.639

Note: The main dependent variable is the ratio of women observed by enumerators who move to another block, fled, or avoided an area within the hotspot to the total number of severe sexual harassment instances. We regress this variable against the ratio of severe incidents to total sexual harassment instances observed by the enumerators in a given hotspot-week. In Column (1), we report OLS estimates and in Column (2), we instrument the severe-to-total ratio with the dummy for the uniformed treatment arm. Each regression includes strata fixed effects. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey.

Table A26: Effect of Police Patrols on Victims' Characteristics

	Type of Skin	Western Clothes	Underage
	(1)	(2)	(3)
Uniformed	0.000	-0.002	0.006
	(0.011)	(0.009)	(0.004)
Undercover	-0.009	-0.013	0.004
	(0.011)	(0.008)	(0.004)
Observations	4,988	4,988	4,988
Mean of Dep. Var / Control	0.133	0.086	0.018
Uniformed=Undercover (p-value)	0.478	0.237	0.711

Note: The dependent variables are the share of victims with a particular characteristic observed in a hotspot week. In Column (1), we present the share of victims who have light skin, and in Columns (2) and (3), we display the percentage of victims who are wearing western clothes (jeans, skirts, one piece or party dresses) and who are below the age of 18, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and women's baseline survey.

Table A27: Effect of Police Patrols on Perpetrators' Characteristics

	Underage	Knows Victim
	(1)	(2)
Uniformed	-0.000	0.002
	(0.002)	(0.005)
Undercover	-0.000	-0.001
	(0.002)	(0.004)
Observations	4,988	4,988
Mean of Dep. Var / Control	0.006	0.022
Uniformed=Undercover (p-value)	0.969	0.537

Note: The dependent variables are the share of perpetrators with a particular characteristic observed in a hotspot week. In Column (1), we present the share of perpetrators who are under the age of 18. In Column (2), we display the percentage of perpetrators who know the victim. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and women's baseline survey.

Table A28: Detection, Skills, and Norms Experiment Videos

	Video Description	Type
	Panel A: Experiment 1	
1	A man winks at a woman and makes gestures at her inappropriately which makes her uncomfortable	Mild Harassment
2	A man is making a video of a woman without her knowing	Mild Harassment
3	Two men on a bike are passing inappropriate comments at a girl which is making her uncomfortable	Mild Harassment
4	A group of men is passing inappropriate comments at a group of women which is making them uncomfortable	Mild Harassment
5	A man is staring at the woman inappropriately which is making her uncomfortable	Mild Harassment
6	A man is staring at the woman inappropriately	Mild Harassment
7	A man accidentally bumps into the woman ahead of him	Neutral
8	A man and a woman are engaged in a playful conversation	Neutral
9	A man steals a woman's phone from her bag	Property Crime
	Panel B: Experiment 2	
1	A woman is shown walking to a bus stop where two men whistle at her and sing a lewd song	Mild Harassment
2	A woman is slapped by a man in a public place leaving bystanders shocked	Severe Harassment
3	A woman is walking in a public place where she is grabbed by a man	Severe Harassment
4	A woman is walking on a street where a man attempts to grab and disrobe her	Severe Harassment
5	A woman is abducted by a man on a deserted street corner	Severe Harassment
6	A woman passenger seated in a bus is touched inappropriately by a man	Severe Harassment
7	A woman traveling in a local train is harassed by a man trying to pull her saree with his foot	Severe Harassment

Note: This table describes the type of videos displayed to officers in the two experiments. Panel A displays the set of videos of mild, property, and neutral events. Panel B displays the types of videos used in severe and mild forms of harassment. The videos in panel A were enacted and recorded by IFMR, the videos in panel B are from CCTV footage. All videos were selected and created based on events that had been reported to SHE Teams, described by women in the pilot of the baseline survey, or identified by SHE teams to be videos reflective of situations they often encounter. All videos show women as the main victim.

Table A29: Effect of Policing on Street Harassment by Patrol Officers' Harassment-Related Attitudes. Threshold is the 85th Percentile.

	Sexual Harassment in Public Spaces		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed X Police Attitudes	-0.087**	-0.026	-0.061*
	(0.037)	(0.020)	(0.033)
Uniformed	-0.009	-0.030**	0.021
	(0.027)	(0.015)	(0.020)
Undercover X Police Attitudes	-0.024	0.035	-0.059
	(0.060)	(0.034)	(0.043)
Undercover	0.008	0.005	0.004
	(0.028)	(0.015)	(0.021)
Observations	4,582	4,582	4,582
Mean of Dep. Var / Control	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total forms of harassment. In Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Police Attitudes is a dummy that takes the value of one if the average team of officers patrolling a hotspot in a given week scored in the 85th percentile or higher of the police attitudes index. The police attitudes index is obtained from individual-level officer surveys. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and police officer survey.

Table A30: Effect of Policing on Street Harassment by Patrol Officers' Harassment-Related Attitudes. Threshold is the 90th Percentile.

	Sexual Harassment in Public Spaces		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed X Police Attitudes	-0.108**	-0.011	-0.098**
	(0.043)	(0.026)	(0.039)
Uniformed	-0.011	-0.032**	0.021
	(0.027)	(0.014)	(0.020)
Undercover X Police Attitudes	-0.052	0.013	-0.066
	(0.061)	(0.040)	(0.045)
Undercover	0.010	0.008	0.002
	(0.029)	(0.016)	(0.021)
Observations	4,582	4,582	4,582
Mean of Dep. Var / Control	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total forms of harassment. In Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Police Attitudes is a dummy that takes the value of one if the average team of officers patrolling a hotspot in a given week scored in the 90th percentile or higher of the police attitudes index. The police attitudes index is obtained from individual-level officer surveys. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and police officer survey.

Table A31: Effect of Policing on Street Harassment by Patrol Officers' Harassment-Related Attitudes. Threshold is the 95th Percentile.

	Sexual Harassment in Public Spaces		
	Total	Severe	Mild
	(1)	(2)	(3)
Uniformed X Police Attitudes	-0.078	0.003	-0.081*
	(0.053)	(0.032)	(0.044)
Uniformed	-0.017	-0.033**	0.017
	(0.026)	(0.014)	(0.020)
Undercover X Police Attitudes	-0.043	0.006	-0.049
	(0.059)	(0.038)	(0.055)
Undercover	0.008	0.009	-0.001
	(0.028)	(0.015)	(0.020)
Observations	4,582	4,582	4,582
Mean of Dep. Var / Control	0.471	0.129	0.342

Note: The main dependent variable is the rate of victims observed in a hotspot-week. This measure is the ratio of total identified victims of sexual harassment per total enumerator visits to a hotspot in a week. In Column (1), we present the rate per total forms of harassment. In Columns (2) and (3), we display the rate by severe and mild forms of harassment, respectively. Each regression includes strata fixed effects. Uniformed is a dummy that takes the value of one if a hotspot is in the uniformed treatment arm and zero if it is a control group hotspot. Undercover is a dummy that takes the value of one if a hotspot is in the undercover treatment arm and zero if it is a control group hotspot. Police Attitudes is a dummy that takes the value of one if the average team of officers patrolling a hotspot in a given week scored in the 95th percentile or higher of the police attitudes index. The police attitudes index is obtained from individual-level officer surveys. Standard errors are clustered at the hotspot level and are in brackets. Source: Enumerator Observation Survey and police officer survey.

Table A32: Detection, Tolerance, and Punishment of Sexual Harassment vs. Other Crimes. Effects by SHE team Membership.

	Detection	Easy to Detect	Need to Address	Punish
	(1)	(2)	(3)	(4)
Mild Sexual Harassment	-0.019	-0.114***	-0.080***	-0.195***
	(0.024)	(0.024)	(0.010)	(0.013)
Mild Sexual Harassment × SHE Team	-0.036	0.123**	0.031	0.052
	(0.058)	(0.052)	(0.033)	(0.032)
N	2688	2688	2688	2688
Dep. var. mean	0.82	0.70	0.92	0.84

Note: Mild Sexual Harassment is a dummy that is equal to one for videos displaying mild harassment incidents and zero otherwise. The dependent variable in Column (1) is a dummy that indicates if an officer was able to differentiate sexual harassment offenses from other offenses in the videos. The outcome in Column (2) is the share of officers who believed sexual harassment offenses were easier to detect than non-sexual crimes. Column (3) uses a binary indicator for whether police officers believed they should invest their time gathering evidence against mild sexual offenses as the outcome. Column (4) reports the treatment effect on a dummy that indicates whenever an officer believed that sexual offenses deserved punishment. We control for the un-interacted she-team dummy. Clustered by police officer standard errors in brackets: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. Source: Lab experiment data.

Table A33: Detection and Punishment of Severe Sexual Harassment vs. Mild Forms

	(1) Detection	(2) Punish.
Severe Sexual Harassment	-0.060**	0.024**
	(0.028)	(0.012)
N	1,337	1,319
Sample	Sexual Harassment	
Session FE	Yes	Yes

Note: Severe Sexual Harassment is a dummy that is equal to one for videos displaying severe harassment incidents and zero otherwise. The dependent variable in Column (1) is a dummy that indicates if an officer was able to differentiate severe sexual harassment offenses from other offenses in the videos. Column (2) reports the treatment effect on a dummy that indicates whenever an officer believed that sexual offenses deserved punishment. Clustered by police officer standard errors in brackets: $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. Source: Lab experiment data.

Table A34: Police Attitudes and Patrolling Behavior

	Patrol Duration (1)	Duration per Visits (2)
Uniformed X Police Attitudes	2.466***	3.685***
	(0.751)	(0.555)
Uniformed	37.071***	11.747***
	(0.782)	(0.270)
Undercover X Police Attitudes	3.342***	3.570***
	(0.856)	(0.910)
Undercover	34.976***	17.392***
	(0.737)	(0.412)
Observations	8,400	8,400
Mean of Dep. Var / Control	36.62	15.34

Note: The main dependent variables are measures of the time spent patrolling during each police visit and mean total duration of each visit. The main independent variables are a dummy that takes the value of one for hotspots that are assigned to receive patrols in uniform—Uniformed—and a dummy that takes the value of one for hotspots that are assigned to receive undercover patrols—Undercover. We interact these variables with a measure of officers' tolerance toward sexual harassment—Police Attitudes. All regressions include strata fixed effects. Standard-errors are clustered at the hotspot level. Source: Police vehicle GPS trackers.

Table A35: Police Attitudes and Punishment

	Punish (1)
Mild Sexual Harassment Film	-0.607***
	(0.044)
Police Attitudes	-0.014
	(0.029)
Mild Sexual Harassment Film X Police Attitudes	0.462***
	(0.045)
Observations	2,688
Mean of Dep. Var	0.837

Note: The dependent variables is an indicator of whether an officer would punish a hypothetical sexual harassment incident. The main independent variables are a dummy that indicates if the officer had to indicate their willingness to punish a mild sexual offense —Mild Sexual Harassment Film —another dummy indicating that the officer has low tolerance to sexual harassment —Police Attitudes — and their interaction. Standard-errors are clustered at the officer level. Source: Lab experiment data.

B. Appendix – Deviations from the Pre-Analysis Plan

The study was pre-registered with AEA (ID: AEARCTR-0005137), under the title "Street Police Patrols and Gender-Based Violence in Public Spaces: Experimental Evidence from Urban India," before the intervention was completed. In this section, we describe all the deviations from the pre-analysis plan (PAP) and the rationales for the changes. Most of the deviations had to be undertaken due to disruptions caused by the COVID-19 pandemic.

B.1 Primary Outcomes

We had planned to conduct a women's survey at the endline. However, the intervention ended at the start of the COVID-19 pandemic, and the city of Hyderabad, much like the rest of the world, then implemented strict stay-at-home orders. For this reason, any pre-specified outcome measured at the women's level through the survey could not be measured at the endline.[41] We had pre-specified four primary outcomes: (i) observed harassment, (ii) safety perceptions, (iii) female mobility, and (iv) routes taken by women. Primary outcomes (ii)–(iv) required the completion of the women's survey at the endline and hence could not be analyzed. While we ended up with only one primary outcome, which would make multiple hypothesis corrections misleading, we nonetheless conducted the pre-specified multiple hypothesis tests on severe and mild forms of harassment—the remaining pre-specified main outcomes that survived the pandemic disruptions.

The one primary outcome that survived, observed harassment, is analyzed as a whole and in two mutually exclusive categories that were not pre-specified: severe harassment and mild harassment. We made this distinction based on the IPC and conversations with several Indian Police Service officers. Moreover, this distinction aligns with the literature that evolved since we pre-registered (Sharma, 2023) and started examining these two outcomes separately.

Additionally, due to data storage limitations with our partner HCP during the intervention period, we could not use CCTV footage to measure female mobility, a primary outcome. Instead, we used the EOS data to analyze women's responses to harassment.

B.2 Secondary Outcomes

Similar to the primary outcomes, any secondary outcomes that required the completion of a women's survey were not collected due to the lockdown. This includes measuring the effects on labor outcomes and participation in social activities as pre-specified. For police reports, which were pre-specified as a secondary outcome, we do not use data on police walk-ins. We learned during the intervention that these data were not suitable for the project due to the lack of detail in criminal records and missing information concerning

[41] We attempted to conduct phone surveys with respondents at the endline, but that proved impractical as women were reluctant to respond to the survey due to both the topic and their being in close proximity to their husbands and the rest of the family during lockdown.

the geolocation of such crimes.

B.3 Additional analysis

To understand the mechanisms, we exploit the heterogeneity by our police attitudes index, which was pre-specified in the empirical strategy of the PAP (previously referred to as the "norms index"). However, we did not specify how we were going to construct it. We also used lab experiment data that were not in the PAP. In particular, after identifying officers' detection and punishment of mild harassment as a key result of our analysis, we conducted lab experiments and surveys to further understand this ability.

C. Ethics, Implementation, and Intervention Content

The research had three study branches that required interactions with human subjects: (i) an EOS, (ii) a police officer survey and lab experiments, and (iii) a women's baseline survey. Following Asiedu et al. (2021), below we describe how we addressed various ethical concerns to ensure the safety, privacy, and referral of all study participants. All activities were developed by the researchers and implemented by the IFMR.

CI Policy Equipoise and Scarcity

Asiedu et al. (2021) argue that ethical randomization of participants to different treatment conditions requires either (1) policy equipoise (i.e., that there is "uncertainty regarding participants' net benefits from each of the study relative to the other arms and [relative] to the best possible policy which participants could have access") or (2) scarcity (i.e., that "no participant can be predicted to be worse off in any arm of the study than under counterfactual policy," there is "scarcity of the resources required for the arms in which participants are better off," and "all ex-ante unidentifiable participants have equal moral or legal claims to the scarce programs"). We consider that in our case, both conditions are met for the reasons outlined below.

Policy equipoise. Prior evidence suggests that patrolling is an effective form of policing to reduce crime (Braga et al., 2019; Blattman et al., 2021; Di Tella and Schargrodsky, 2004; Draca, Machin and Witt, 2011). However, given the novelty of our study design, which includes different forms of patrolling to reduce sexual harassment on the streets, we could not find any conclusive evidence from the literature suggesting that one treatment (or control) arm dominated the others when considering the overall well-being of the participants. We also held several rounds of discussions with Hyderabad police officials regarding our study design to gather their insights and potentially refine our approach based on practical considerations and local expertise.

Ex ante, the effects of these treatments were not obvious. On the one hand, undercover police patrols could be expected to identify more harassment cases because officers

can move without being noticed, which would lead to larger incapacitation effects. Additionally, undercover policing could lead to a deterrence effect if potential perpetrators observed undercover police removing criminals. However, it is less likely that citizens could observe police behavior in the undercover arm, as officers do not want to reveal themselves, thereby making their performance less salient to citizens. On the other hand, uniformed patrols would have larger deterrence effects since criminals would observe police activity. Moreover, if victims and bystanders observed police activity, this could change their behavior as well since they might find it easier to report the harassment they experienced or witnessed. The absence of literature on this difference itself constitutes a contribution of the study.

We concluded that there is significant uncertainty regarding the net benefits that participants might receive from each arm of the study relative to the others. Because our study was designed to compare different approaches to improve safety perceptions and reduce sexual harassment, and no related study implemented a similar design, we had scarce evidence to suggest ex ante which approach would be most effective. Contributing to this evidence on the impacts of such programs on broader measures of safety, and reducing the incidence of sexual harassment through street policing, was a top priority for us in designing our study.

Scarcity. Given the pre-existing evidence on the effectiveness of patrolling in reducing crimes, in our context, our ex ante expectation was that hotspots assigned to either of the patrolling intervention arms would experience decreased incidences of street sexual harassment cases. As discussed above, the study was conducted in an environment where there is uncertainty or lack of consensus regarding the net benefits to participants from different potential policy approaches aimed at addressing gender-based violence and improving women's safety in public spaces. In other words, there was policy equipose, and ex ante, our study design did not favor one specific policy intervention over others. Instead, our primary objective was to generate evidence to better understand the prevalence of sexual harassment, women's perceptions of safety, and attitudes toward gender-based violence to inform policies around female-centric policing.

In the context of this study, all the hotspots were randomly allocated to either the treatment arms or the control arm. Therefore, all participants had ex ante equal claims to the patrolling interventions.

CII Research Team's Role

The researchers in the team can be classified as active researchers given that they had direct input on the intervention's design and the selection of the hotspots in which the patrolling interventions were implemented. Our research team was also responsible for securing funding for the study and hiring and training key personnel for overseeing our implementation. The implementing partner for our study was the Institute for Financial Management and Research (IFMR), which has extensive experience in hiring and training enumerators, conducting surveys, and implementing design-based interventions across

India. IFMR teams also have previous experience working in the topic of gender-based violence. In designing the intervention, researchers evaluated potential impacts or harms, as well as its ethical validity, and took actions to minimize risks of harm. Mr. Anjani Kumar, Commissioner of Police (HCP), is also listed as a co-author on this study because he provided technological knowledge to help us maximize the security protocols during the study's implementation and also lead the coordination of the SHE Teams.

We took informed consent from each respondent (wherever applicable). All consent forms received ethical approval from the Institutional Review Board at Princeton University. Below we expand on the aspects that directly pertain to the EOS exercise.

CIII Potential Harms to Participants and Non-Participants

We undertook this study against a backdrop of a policy of equipoise, and hence ex ante, there was uncertainty regarding the potential benefits or unintended consequences of our two treatment arms relative to one another, i.e., undercover police patrolling and uniform police patrolling. Given the prior evidence on the effectiveness of policing in reducing crimes in public spaces, we hypothesized that street sexual harassment could decrease in either or both of our treatment arms.

We also deliberated carefully about the potential risks from our two intervention arms to participants, non-participants, and enumerators, and we discussed steps to mitigate the risks. These risks and mitigation strategies are described as follows.

Risks to Enumerators:

- Exposure to harassment during fieldwork.
- Emotional and psychological stress from observing harassment.
- Safety risks during travel and data collection.

Mitigation Strategies:

- Extensive discussions were held with scholars from public health, anthropology, gender studies, and economics while designing the observational study (the EOS). We incorporated these suggestions into the exercise's design to the best of our abilities.
- Training: Comprehensive training was provided on identifying harassment, safety protocols, and WHO guidelines for gender-based violence.
- Support services: Enumerators had access to BHAROSA for legal aid, medical care, counseling, and temporary shelters. They also had weekly group discussion sessions with the project manager.
- Withdrawal rights: Enumerators could withdraw from the study at any time without penalties.

- Field protocol: Enumerators were provided a detailed field protocol document outlining day-to-day activities, safety risks, and mitigation strategies.
- Monitoring and communication: Enumerators had GPS tracking devices monitored by IFMR, continuous mobile phone contact with research assistants, and personal contact numbers of police staff. They knew that there was a male counterpart in the vicinity of the patrolled areas in case they required quick assistance.
- Reporting mechanisms: These consisted of dedicated helplines to both BHAROSA and SHE Teams for reporting harassment.
- Work limitations: Enumerators were limited to six weeks of continuous work to prevent burnout and emotional distress.
- The Princeton IRB did not allow us to systematically collect data on enumerators' experiences of harassment to avoid stigmatization and personal identification.
- Group sessions: Regular group sessions were held to discuss and manage any unpleasant experiences encountered during fieldwork. Fortunately, the enumerators did not report any harassment while conducting fieldwork during the study.
- Counseling sessions were offered toward the end of the intervention.

Risks to Police Officers:

- Discomfort or distress from participating in surveys or experiments.
- Concerns about confidentiality and data security.

Mitigation Strategies:

- Consent and withdrawal: Officers were informed about their right to consent, withdraw, and skip questions without repercussions.
- Confidentiality: Surveys were conducted at the officers' convenience, ensuring confidentiality and data security.
- Identification and cooperation: Identification cards and letters from the Commissioner of Police were provided to ensure cooperation and legitimacy of the study.
- No sensitive questions: The surveys were designed to avoid questions about personal violence victimization.

Risks to Women Participants (Baseline Survey):

- Emotional distress from recalling or discussing experiences of harassment.
- Safety risks during the survey process.
- Breach of confidentiality and privacy.

Mitigation Strategies:

- Informed consent: There was clear communication about the study's purpose, risks, and the right to withdraw or skip questions.
- Privacy measures: We ensured that surveys were conducted in private settings, and stopped them if privacy was compromised.
- Support services: Women were referred to BHAROSA for support in dealing with harassment experiences.
- Anonymity and data security: We ensured that all the data were anonymized and encrypted, with separate storage of anonymization and decryption keys.
- Safety protocols: The enumerators and respondents could stop the interview at any point if their safety was compromised.

General Risks to All Participants:

- Anxiety or fear related to participating in a study about harassment.
- Changes in behavior due to awareness of being observed.

Mitigation Strategies:

- Clear communication: We ensured that all participants are well-informed about the study's objectives, procedures, and their rights.
- Safety and support: Multiple layers of support and clear reporting mechanisms to address any incidents were ensured.
- Ethical Oversight: There was continuous monitoring by the research team to ensure adherence to ethical standards and protocols.

CIV Conflicts of Interest and Intellectual Freedom

The researchers involved in this study have no financial or non-financial conflicts of interest to disclose. This study was funded by the J-PAL Crime and Violence Initiative, Princeton University, the Leibniz Association, the Human Rights Institute at the University of Connecticut, and by aid from the UK government through the ieConnect for Impact Program. The researchers did not receive any personal compensation tied to the outcomes of the research.

The researchers had full autonomy in designing the study, collecting and analyzing data, and reporting the findings. There were no restrictions imposed by the funding agency, institutions, government bodies, or any other external parties on the intellectual

freedom and academic independence of the researchers to conduct this study and disseminate the results. The research team also signed a letter of understanding with HCP, on September 2, 2018, which ensured that the research team had the academic freedom for the full and free dissemination of research and scholarship (except confidential information).

CV Feedback to Participants

Our study's primary objective is to better understand the prevalence of sexual harassment, women's perceptions of safety, and attitudes around gender-based violence to inform policies around female-centric policing. Hence, in tandem with our objective, we shared all our findings with HCP and held detailed discussions with the head of SHE Teams, Ms. Shikha Goel, Additional Commissioner of Police (Indian Police Service).

CVI Foreseeable Misuse of Research Results

The study's results have strong internal validity, and owing to our study design, the effect sizes across all our specifications are fairly reliable to inform policies in Hyderabad and other culturally and geographically proximate areas. While the findings from our research can be useful in other settings, we would like to draw caution against generalizing our results in other contexts. Beyond this, we do not foresee any plausible risks of the results being misused.

D. Survey Instruments and Data Collection Protocols

DI The EOS

For every visit to a hotspot, the enumerator would note the events observed for up to five women. The survey included the following questions:

1. Time stamp. (Capture the time you arrived at the location).

2. How many people were at the location?

3. Did you see police while you were at the location? Answer options: 1.Yes, 2.No

4. During your time at the location, did you see any other girl/woman/transgender face any harassment? Answer options: 1.Yes , 2.No. For each observed woman, please complete the following.

5. Which group did she belong to? Answer options: Girl (below 18 years old), woman (age group – 18 to 40), woman (age group 40 and above), transgender, don't know

6. What incident/incidents did you see them encounter? Answer options: Threaten to hurt (verbal threats); indecent exposure, taking pictures without consent; unwelcome comments/catcalling/whistling; inappropriate gestures or facial expressions; stalking; touching/groping/pushing; staring that makes you feel uncomfortable (ogling); attempt to intimidate (by yelling at you; smashing things; trying to make physical contact, etc.); physical abuse; abduction; acid attack.

7. How did she respond to the incident? Answer options: She called someone over the phone right after the incident; she informed the person accompanying her at the location; called out the perpetrator publicly, used any form of self-defence (pepper spray, whistle, etc.); asked for help from bystanders; she move away from the location; she confronted the perpetrator quietly; did not see her report the incident; she responded to the incident but continued to be with the same person; she did nothing and stayed there; the woman didn't realise the incidents listed took place; others, specify.

8. Did bystanders provide any kind of help/assistance to the victim? Answer options: Yes, when they witnessed perpetrator harassing the woman; yes, but she refused the help; no, they witnessed but did nothing; no, no one else witnessed.

9. End time. Note to enumerator: Capture the time of your departure from the location.

10. GPS Location. Automatically capture location below three meters.

DII Lab Experiment Protocol

Between January and March of 2021, the research team set up a computer lab in HCP headquarters. The lab was composed of 14 computers, all separated according to social distancing rules. All computers were also separated by large cardboard blocks to avoid conversations between participants. Below we describe the protocol followed to conduct the experiments.

Recruitment of Participants, Consent, and Incentives. Participants were selected from a sample of respondents to the police officers' survey, and all from SHE Teams officers were invited to participate. Among non-SHE Teams officers, we identified officers working on similar police task forces, including those doing patrols for the Blue Colts task force. We randomly selected officers to invite from this subsample. All officers were summoned by letters from HCP, and they also received a phone call. Officers could choose their preferred time slot to attend, and they did not receive any cash or in-kind incentive to participate.

General Instructions and COVID-19 Safety Protocols. The sessions were conducted during the COVID-19 pandemic. However, police officers were among the priority group for vaccinations and were not subject to mandated stay-at-home orders. To ensure the integrity of the experiment and preserve the safety of officers, we used the following instructions:

1. Participants are asked to enter one by one in the room.
2. Participants are assigned to one computer each. Each participant's space is vacant on both sides to preserve anonymity in responses and due to Covid-19 regulations.
3. Each participant's screen is separated on both sides with cardboard separators to preserve anonymity.
4. Per session there are one lab manager and two assistants providing instructions and answering technical questions, respectively.
5. The lab is operational every week from Mondays to Saturdays.
6. We conduct three sessions every day with 8 participants per session.
7. Officers have been allocated to sessions and computers randomly by the RA using Stata.
8. Before the arrival of participants and start of the session, surveyors and research assistants took the following steps:
   (a) Sanitize all equipment, desks, and chairs.
   (b) Label computers from 1 to 8.

(c) Prepare the computers – Check for internet connection and functionality of earphones by playing a video on YouTube.

(d) Prepare attendance sheet – UID, Name, Rank ID, Date, Session Number, Time, Reporting Time of the officer, Signature, Computer Number, Temperature.

(e) Prepare the folder and the log file for the session. The log file should be used to enter any abnormal situation that took place in each session. Please save the file with the session ID.

(f) RA: make sure your laptop is charged and has an active internet connection at all times.

(g) RA: Configure the following accounts for each of the eight participants plus two of buffer, and set up the experiments links in each computer.

(h) RA to confirm if all 10 computers are ready and have a functional internet connection.

9. Upon arrival of each officer, the surveyor is required to:

   (a) Check the officer's temperature – Note it down in the attendance sheet. Officers with high temperatures should be asked to leave.

   (b) Spray sanitizer on the officer's palms.

   (c) Give a face mask to the officer.

   (d) Make every officer sign the attendance sheet. Ask the officer to pick a sheet from the bowl and write down the number on the sheet in the attendance sheet.

   (e) Ask the officer about the mobile network he/she uses and note down in the attendance sheet.

   (f) Escort the officer to the computer which carries the same number as his/her sheet. (One of the two surveyors can take the duty of escorting the officer to his/her computer).

10. After the end of the session, the surveyor is required to:

    (a) Disinfect all computers and desk materials and restart the session with the above instructions.

Experimental Scripts and Surveys for the Lab Session. Below we provide a description of the events in the lab experiment.

1. Greetings and general advice: Dear officer, welcome to this lab! We would like to thank you for your participation in this study which is being conducted by LEAD, a research organization. I am and these are my team members, . We will be present with you today to assist you in completing the session. We would like to inform you that the study will last for about 1 hour. This study involves playing two different games. Each game will take about 30 minutes to complete. In each of the games, you will be shown some videos and asked to answer questions based on those videos.

If you answer the questions correctly, you stand to win an Amazon gift voucher worth up to Rs. 520. If you agree to participate, we would like to inform you that throughout the study, all your responses will be kept confidential and will not be shared with anyone in the Hyderabad Police or anyone outside the research team.

Now I will read some rules of the lab while my team members prepare your computer. Do not press any button yet.

(a) Always wear your mask.

(b) Do not talk once the session has begun as it might disturb other officers.

(c) Do not discuss your responses/doubts with the person sitting adjacent to you.

(d) Please do not look around to other officers either.

(e) If you face any issue in the middle of the experiment like computer screen hangs or instructions are unclear, etc., do not press any item on the computer. Raise your hand and someone from the lab team will come to your desk to address your problem.

(f) Please wear your headphones before starting the session.

Detection experiment 1: Now we will start with the first game which will take about 30 minutes of your time.

1. A lab monitor will come to enter details on the first screen. Do not enter any details on your own.
2. Do not start on your own. Wait for my announcement to start the session.
3. This experiment will involve watching some very short videos. You are requested to watch each video till the end.
4. You are not allowed to replay a video at any point of time.
5. Once you have seen and understood the information on the screen, you can go the next question by clicking the NEXT button.
6. It is necessary to answer each question to enable you to move to the next question.
7. DO NOT hit the PREVIOUS button at any point of the game.
8. These instructions are printed in the instruction's manual kept on your desk. You will be given time to read them.
9. When you reach the end of this game, do not press the submit button. Raise your hand. A lab monitor will come to your desk to submit your responses and prepare your computer for the next part of the game.

I request you to wait while my team enters your details on the screen. Please confirm if your details are correct.
Now you have 5 minutes to read the instructions manual kept on your desk. Your time starts now.

Your reading time is over. Please wear your earphones and then click the NEXT button on your screen to begin the session.

For each video officers would be asked to reply the following questions:

1. What action would you take if you were present at this location? Answer options: Make a video of this incident and take the man to the police station, Take the man to the police station, Issue a warning to this man , Escort the woman to a safe place, Woman is comfortable, so take no action, Woman is not uncomfortable, so take no action, Take an action only if the woman complains, Take no action as there is nothing problematic going on in this situation, Don't know.
2. Given these circumstances, if you were to encounter such an incident while patrolling, how difficult do you think it would be to collect evidence against the suspect in this case? Answer options: Very Difficult, Difficult, Easy, Very Easy, Not needed since nothing wrong is happening.
3. Select the option that best describes the scene depicted in the video. Answer options: 4 different options per video with only one correct answer as shown in A28 , None of the above, Don't know.

Congratulations! You have successfully completed part 1 of the session.

Detection experiment 2: Now we will begin the next and last part of this session. This will take about 20 minutes of your time. If you answer the questions in this game correctly, you can earn a gift voucher worth anywhere between INR 0 and INR 520. You can use this gift voucher to make online purchases on Amazon worth the amount earned by you. This game has 2 stages and the instructions to play these games will appear on your screen. In stage 1, you will be asked to count the number of zeros on your screen. In stage 2, you will be shown some videos and asked to answer some questions based on the videos. Now, I will read some instructions:

1. Do not start on your own. Wait for my announcement to start the session.
2. Please do not change any information entered by the lab monitors on the first screen.
3. Do not press the BACK button at the top-left corner of the screen at any given point of the experiment. You cannot change your responses once submitted.
4. To proceed to the next screen, select the blue-colored NEXT button present at the bottom of your screen.

5. If you face any issue during the experiment, please raise your hand and one of us will come to your desk to address your issue.

6. When you reach the end of the game, raise your hand and a lab monitor will come to your computer to submit your responses.

7. Please wear your earphones.

I request you to wait while my team enters your details on the screen. Please confirm if your details are correct. Now, you have 5 minutes to read the instructions manual kept on your desk. Your time starts now.
Your reading time is over. Please wear your earphones and then click the NEXT button on your screen to begin the session.
For each video, officers would be asked to identify what they observed and what action they would take. The questions presented to officers were:

1. Imagine you are an officer on duty and witness the scene depicted in the video. Select the option which best describes what you see. Answer options would vary video. For video 1 in Panel of Table A28 the options were: A man is looking at a woman, a man is looking at a woman inappropriately and winks, A man is looking at a woman inappropriately and winks which makes her uncomfortable, Refuse to answer.

2. If you were present in this situation, what action would you take? Answer, Warn the man and ask him to leave, Take the man to the nearest police station.

Thank you for your participation. You will receive a gift voucher equal to the amount earned by you in this game via SMS by tonight.

References

ActionAid. 2016. Fearless. Technical report ActionAid.

Adams-Prassl, Abi, Kristiina Huttunen, Emily Nix and Ning Zhang. 2022. Violence Against Women at Work. Technical report Federal Reserve Bank of Minneapolis.

Amaral, Sofia, Sonia Bhalotra and Nishith Prakash. 2021. "Gender, crime and punishment: Evidence from women police stations in India." *CESifo working paper* .

Anwar, Shamena and Thomas A Loughran. 2011. "Testing a Bayesian learning theory of deterrence among serious juvenile offenders." *Criminology* 49(3):667–698.

Asiedu, Edward, Dean Karlan, Monica Lambon-Quayefio and Christopher Udry. 2021. "A call for structured ethics appendices in social science papers." *Proceedings of the National Academy of Sciences* 118(29).

Ba, Bocar A, Dean Knox, Jonathan Mummolo and Roman Rivera. 2021. "The role of officer race and gender in police-civilian interactions in Chicago." *Science* 371(6530):696–702.

Banerjee, Abhijit, Esther Duflo, Daniel Keniston and Nina Singh. 2019. The efficient deployment of police resources: Theory and new evidence from a randomized drunk driving crackdown in India. Technical report National Bureau of Economic Research.

Bindler, Anna, Nadine Ketel and Randi Hjalmarsson. 2020. "Costs of victimization." *Handbook of Labor, Human Resources and Population Economics* pp. 1–31.

Bland, Matthew, Michelle Leggetter, David Cestaro and Jacqueline Sebire. 2021. "Fifteen minutes per day keeps the violence away: A crossover randomised controlled trial on the impact of foot patrols on serious violence in large hot spot areas." *Cambridge journal of evidence-based policing* 5(3):93–118.

Blanes i Vidal, Jordi and Giovanni Mastrobuoni. 2018. "Police patrols and crime." *IZA Discussion Paper* .

Blattman, Christopher, Donald P Green, Daniel Ortega and Santiago Tobón. 2021. "Place-based interventions at scale: The direct and spillover effects of policing and city services on crime." *Journal of the European Economic Association* 19(4):2022–2051.

Borker, Girija. 2022. "Constraints to Women's Use of Public Transport in Developing Countries, Part II: Safety." *Global Indicators Briefs* 2(10).

Borker, Girija. 2024. "Safety First: Perceived Risk of Street Harassment and Educational Choices of Women." *Working Paper* .

Boudreau, Laura E, Sylvain Chassang, Ada Gonzalez-Torres and Rachel M Heath. 2023. Monitoring harassment in organizations. Technical report National Bureau of Economic Research.

Braga, Anthony A, Brandon Turchan, Andrew V Papachristos and David M Hureau. 2019. "Hot spots policing of small geographic areas effects on crime." *Campbell Systematic Reviews* 15(3):e1046.

Chakraborty, Tanika, Anirban Mukherjee, Swapnika Reddy Rachapalli and Sarani Saha. 2018. "Stigma of sexual violence and women's decision to work." *World Development* 103:226–238.

Cheema, Ali, Asim I Khwaja, Farooq Naseer and Jacob N Shapiro. 2019. Glass walls: Experimental evidence on access constraints faced by women. Technical report Mimeo, Harvard University.

Collazos, Daniela, Eduardo García, Daniel Mejía, Daniel Ortega and Santiago Tobón. 2021. "Hot spots policing in a high-crime environment: An experimental evaluation in Medellin." *Journal of Experimental Criminology* 17(3):473–506.

Dahl, Gordon B and Matthew M Knepper. 2021. Why is workplace sexual harassment underreported? The value of outside options amid the threat of retaliation. Technical report National Bureau of Economic Research.

Dhillon, Megha and Suparna Bakaya. 2014. "Street harassment: A qualitative study of the experiences of young women in Delhi." *Sage Open* 4(3):2158244014543786.

Di Tella, Rafael and Ernesto Schargrodsky. 2004. "Do police reduce crime? Estimates using the allocation of police forces after a terrorist attack." *American Economic Review* 94(1):115–133.

Draca, Mirko, Stephen Machin and Robert Witt. 2011. "Panic on the streets of London: Police, crime, and the July 2005 terror attacks." *American Economic Review* 101(5):2157–81.

Dube, Oeindrila, Sandy Jo MacArthur and Anuj Shah. 2023. A Cognitive View of Policing. Technical report Mimeo, University of Chicago.

Field, Erica and Kate Vyborny. 2022. "Women's Mobility and Labor Supply: Experimental Evidence from Pakistan." *Asian Development Bank Economics Working Paper Series* 655.

Folke, Olle and Johanna Karin Rickne. 2020. "Sexual harassment and gender inequality in the labor market." *CEPR Discussion Paper* DP14737.

Hardt, Selina, Heidi Stöckl, Joyce Wamoyi and Meghna Ranganathan. 2023. "Sexual harassment in low-and middle-income countries: A qualitative systematic review." *Trauma, Violence, & Abuse* 24(5):3346–3362.

Hoenig, John M and Dennis M Heisey. 2001. "The abuse of power: the pervasive fallacy of power calculations for data analysis." *The American Statistician* 55(1):19–24.

Jayachandran, Seema. 2021. "Social norms as a barrier to women's employment in developing countries." *IMF Economic Review* 69(3):576–595.

Kondylis, Florence, Arianna Legovini, Kate Vyborny, Astrid Maria Theresia Zwager and Luiza Cardoso De Andrade. 2020. "Demand for safe spaces: Avoiding harassment and stigma." *World Bank Policy Research Working Paper* (9269).

Koper, Christopher S. 1995. "Just enough police presence: Reducing crime and disorderly behavior by optimizing patrol time in crime hot spots." *Justice quarterly* 12(4):649–672.

Lindo, Jason M, Peter Siminski and Isaac D Swensen. 2018. "College party culture and sexual assault." *American Economic Journal: Applied Economics* 10(1):236–65.

Livingston, Beth. 2015. Hollaback! International Street Harassment Survey Project. Technical report ActionAid.

Moser, Caroline. 2012. "Mainstreaming women's safety in cities into gender-based policy and programmes." *Gender & Development* 20(3):435–452.

Nation, United. 2017. "Data on Police Organisations 2017." *Population Division, United Nations Office on Drugs and Crime* .

Saguy, Abigail C and Mallory E Rees. 2021. "Gender, power, and harassment: Sociology in the #MeToo era." *Annual Review of Sociology* 47:417–435.

Sharma, Karmini. 2023. Tackling Sexual Harassment: Short and Long-Run Experimental Evidence from India. Technical report Mimeo.

Siddique, Zahra. 2018. "Violence and female labor supply." *Available at SSRN 3273713* .

Sridhar, Kala Seetharam and Shivakumar Nayka. 2022. "Determinants of commute time in an indian city." *Margin: The Journal of Applied Economic Research* 16(1):49–75.

Srinivas, M. 2020. "Dial 100 on time in Telangana." *Telangana Today* .
URL: *https://telanganatoday.com/dial-100-on-time-in-telangana*

Sukhtankar, Sandip, Gabrielle Kruks-Wisner and Akshay Mangla. 2022. "Policing in patriarchy: An experimental evaluation of reforms to improve police responsiveness to women in India." *Science* 377(6602):191–198.

Sviatschi, Maria Micaela and Iva Trako. 2024. "Gender violence, enforcement, and human capital: Evidence from women's justice centers in Peru." *Journal of Development Economics* 168:103262.

Telep, Cody W, Renée J Mitchell and David Weisburd. 2014. "How much time should the police spend at crime hot spots? Answers from a police agency directed randomized field trial in Sacramento, California." *Justice Quarterly* 31(5):905–933.

Westfall, Peter H and S Stanley Young. 1993. *Resampling-based multiple testing: Examples and methods for p-value adjustment*. Vol. 279 John Wiley & Sons.

Wilson, Theodore, Ray Paternoster and Thomas Loughran. 2017. "Direct and indirect experiential effects in an updating model of deterrence: A research note." *Journal of Research in Crime and Delinquency* 54(1):63–77.