Dear Professors Breza, Viviano and Chandrasekhar,

I am a PhD candidate at the University of Chicago, writing to apply for the Workshop on Development Economics and Networks. My research examines how institutions– including criminal justice systems, media, and civil society– shape gender-based violence and the social norms that sustain it.

The paper I would like to present at the workshop examines the extent to which the perpetration of sexual violence is influenced by perceived enforcement versus social norms. We leverage the rollout of victim-centric specialized courts for sexual offences (SOCs) in South Africa – a country with one of the highest reported rates of sexual violence in the world – and find that SOCs reduce perpetration by 10-29%. Enforcement alone appears to be insufficient, as the changes are concentrated in areas with denser networks of victim-support NGOs, while the improvements in enforcement are geographically uniform. We also observe broader changes in attitudes toward intimate partner violence, providing further suggestive evidence for the role of social norms in reducing perpetration.

I would greatly value feedback on developing more evidence on social norms as a mechanism. I am particularly interested in taking a social networks approach to study whether and how victim-support NGOs change social norms by making the harm to victims more salient. I believe this paper would benefit immensely from input from senior researchers with expertise in social networks in developing contexts, as well as from brainstorming with peers from other institutions who are doing similar research.

My contact information is as follows:

Email 1: sganapathi@uchicago.edu

Email 2: smriti.ganapathi@gmail.com

Tel: +1 312-366-4979

The contact details of my reference are:

Name: Anjali Adukia

Email: adukia@uchicago.edu

Thank you very much for taking the time to consider my application. I look forward to hearing from you,

Sincerely,

Smriti Ganapathi

SMRITI GANAPATHI

sganapathi@uchicago.edu Chicago, Illinois https://smriti-ganapathi.github.io/

EDUCATION

PhD. in Public Policy

Harris School of Public Policy, University of Chicago

2027 (Expected) Chicago, USA

PhD scholarship by The Pearson Institute

- *Dissertation - "Enforcement, Norms, Framing: How Institutional Decisions Shape Gender-Based Violence"*

MSc. Economics and Social Sciences

Bocconi University

2018 Milan, Italy

Admitted with a merit scholarship.

- *Dissertation - "Tackling violence against women: can laws change perceptions?"*

GRANTS AND SCHOLARSHIPS

- 2026; 2023: $16,000, Development Economics Research Fund, University of Chicago & NHH – "Sexual Violence in South Africa".
- 2026: Center for Gender & Sexuality Studies Grant
- 2021: PhD scholarship by the Pearson Institute.
- 2021: $3000, Research funds by the Pearson Institute.
- 2015: Merit scholarship for Master's degree by Bocconi University.

WORKS IN PROGRESS

- *The Impact of Victim-Centric Institutions on Sex Offense Perpetration* (JMP) – with Daniela Horta-Saenz & Mazeeda Karani
- *Policing Intimate Partner Violence: Curbing Abuse or Shifting It?*
- *The Impact of Social Movements on Rape Rhetoric: Evidence from India*

POLICY WRITING

- Oeindrila Dube, Smriti Ganapathi, Soeren J. Henn, and James A. Robinson. 2020. "Farmer-Herder Conflict in Nigeria's Middle Belt: Evidence from 288 Communities." *Policy Report*.

CONFERENCE PRESENTATIONS

Violence Prevention Research Conference

July 12-14, 2026 Portsmouth NH, USA

International Society for the Prevention of Child Abuse and Neglect (ISPCAN) Congress

Oct 06-09, 2025 Vilnius, Lithuania

European Conference on multi-agency response to gender-based violence

May 16-17, 2019 Vilnius, Lithuania

Second International Symposium on Gender, Law and Constitutions

Apr 12-13, 2017 Washington DC, USA

SOFTWARE SKILLS

R Stata Python LaTeX NVivo

LANGUAGES

English
Hindi & Tamil
Italian & French
Arabic & Hawaiian

TEACHING EXPERIENCE

Instructor - Program Evaluation

University of Chicago

Oct 2023 Chicago, U.S.A

Designed and taught course for international policy students students & practitioners.

Guest Lecturer: Violence in Schools

University of Chicago

Feb 2026 Chicago, U.S.A

Teaching Assistant

University of Chicago

Oct 2022 – Mar 2026 Chicago, U.S.A

Leading TA sessions & Office hours:

- Statistics for Data Analysis; Program Evaluation; Advanced Microeconomics

Supervising student research proposals:

- Education & Economic Development

RESEARCH EXPERIENCE

Doctoral Research Assistant

University of Chicago

Jun 2022 – Oct 2023 Chicago, U.S.A

Projects related to domestic abuse, using causal machine learning.

Pre-doctoral Research Assistant

University of Chicago

Jul 2019 – Jul 2021 Chicago, U.S.A

Quasi-experimental projects & RCTs around conflict and gender.

Field Research Associate

Abdul Latif Jameel Poverty Action Lab (J-PAL)

Jun 2018 – Dec 2018 Chennai, India

RCT on women's and children's health, overseeing primary data collection from over 10,000 households in 223 villages

MULTILATERAL ORGANIZATIONS

Evaluation Intern

International Fund for Agricultural Development

Mar 2019 – Jul 2019 Rome, Italy

Synthesized findings from 30 projects on community-driven development (CDD).

Intern- Crime Statistics

UN Office on Drugs and Crime

Jan 2018 – Apr 2018 Vienna, Austria

Compiled global data on violence against women, and contributed to the "Global Study on Homicide" report.

PHD COURSEWORK

- Game Theory
- Advanced Microeconomics for Policy Analysis I & II
- Applied Econometrics I, II, & III
- Topics in Econometrics (a course on Machine Learning and Econometrics)
- Applied Microeconometrics
- The Practicalities of Running Randomized Control Trials
- Behavioral Economics - Development & Observational Data
- Behavioral Economics - Theory & the Lab
- Gender & Policy
- Understanding Inequality as a Psychologist
- Advanced Topics in Political Economy: Comparing Societies

REFERENCES

- Oeindrila Dube: odube@uchicago.edu
- Chris Blattman: blattman@uchicago.edu
- Anjali Adukia: adukia@uchicago.edu

Motivation Statement

In my research, I seek to understand the factors that sustain various forms of gender-based violence (GBV) across cultural contexts. My projects study the causal impact of institutional decisions on various aspects of GBV, ranging from perpetration to public discourse. Through this workshop, I hope to develop a deeper understanding of the conceptual and empirical tools to study how these institutional decisions impact the diffusion of norms and beliefs around GBV through communities.

In the paper I would like to present, my coauthors and I study whether the perpetration of sexual violence is responsive to changes in legal and social incentives. We leverage the staggered rollout of victim-centric specialized courts for sexual offenses (SOCs), which have the potential to increase the social salience of harm to victims in addition to improving enforcement. We find that SOCs reduce perpetration by 10-29%, and conduct a battery of tests to validate that the results reflect a true decrease in incidence, and not merely reporting by victims or recording by the police. We find three key pieces of evidence that suggest the decline is driven by changes in social norms, rather than solely enforcement.

First, the decline is concentrated in areas with a denser network of victim-support organizations, while improvements in enforcement are geographically uniform. Second, we observe a broader changes in attitudes, with longer exposure to SOCs associated with lower acceptance of wife-beating. Finally, using proxies for offense types developed from clinic data, we find that acquaintance rapes reduce, while assaults against children and violent assaults against strangers remain unchanged. This is consistent with a social norms mechanism, as perpetrators of the latter offense types engage in greater rationalization, making them less likely to experience cognitive dissonance when victim harm becomes more salient.

While these findings are informative, they are only suggestive. I would greatly value feedback on how to develop more definitive evidence for social norms as a mechanism. I am especially interested in exploring how networks of victim-support organizations may make victim harm more salient in communities. I hope to learn from researchers studying social networks in developing contexts about how to conceptualize and empirically identify the diffusion of such information.

These questions extend beyond this paper. In other ongoing projects, I study how social movements shape news rhetoric around rape, and how community discussions around the historical origins of female genital mutilation may weaken the cultural legitimacy of the practice. Across these projects, I am increasingly interested in how changes in beliefs diffuse through communities and ultimately affect behavior. My work would benefit immensely from the lectures by senior researchers, as well as from the opportunity to brainstorm with other participants, share ideas and resources, and learn from their work.

The Impact of Victim-Centric Institutions on Sex Offense Perpetration *

Smriti Ganapathi[1], Daniela Horta-Saenz[2], and Mazeeda Karani[3]

[1] University of Chicago, Harris School of Public Policy
[2]Norwegian School of Economics, NHH
[3]Rape Crisis Cape Town Trust

September 14, 2026

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Abstract

Sexual violence is a major human rights violation and public health concern, but the drivers of perpetration remain poorly understood. This paper examines how perpetration rates respond to increases in perceived enforcement as well as the salience of harm to victims. We leverage the staggered rollout of specialized sexual offenses courts (SOCs) in South Africa – a policy innovation that aims to be survivor-centric while prioritizing the resolution of sex offenses. We find that SOCs reduce sexual offenses by 10-29%. These results are not explained by increased enforcement alone; effects are concentrated in areas with a higher density of civil society organizations providing victim support, while improvements in enforcement appear geographically uniform. We also observe lower tolerance for intimate partner violence in areas with longer exposure to SOCs, suggestive of a broader change in gender norms. Proxies for the nature of the violence, based on latent class analysis of data from specialized clinics, suggest that acquaintance rapes are most responsive to these changes, while violent offenses by strangers remain unchanged, as do offenses against children. Our results suggest that survivor support can amplify the preventive effects of enforcement by changing social understandings of harm to victims, while also highlighting heterogeneity in perpetration patterns.

Keywords: Crime, Criminal Justice, Perpetration, Gender-Based Violence

*We are deeply grateful to the South African Police Services and the National Prosecuting Authority, for giving us permission to use their data, and for helpful discussions. We would also like to thank Oeindrila Dube, Chris Blattman, Anjali Adukia, Jeffrey Grogger and Dan Black for formative guidance and feedback. We are thankful to the seminar participants at the University of Chicago, Sciences Po, and NHH, as well as conference attendees at the Violence Prevention research Conference for their comments and suggestions. This work was funded by the Becker Friedman Institute and the Pearson Institute. This paper does not reflect the opinions or views of the data providers or funders. IRB approval was awarded by the University of Chicago (IRB23-0989). All errors are our own.

1 Introduction

Sexual violence is a global crisis with severe and lasting consequences on victims' well-being and human capital (World Health Organization 2019). Beyond the immediate physical and mental harm, rape can lead to declines in educational attainment, employment, and earnings (Adams and Nix 2026), while the risk of sexual harassment may itself cause women to forgo educational and labor market opportunities in order to prioritize their safety (Borker 2021). Reducing perpetration is therefore critical not only for the welfare and rights of victims [1], but also for sustainable economic development and gender equality.

There has been much debate over the factors underpinning perpetration, and the extent to which it is malleable. One perspective emphasizes individual-level factors such as impulsivity and psychopathology, while another views sexual violence as embedded in broader systems of patriarchy, rape culture, and male hegemony (see, for example, Brownmiller (1993); Marshall and Barbaree (1990)). This calls into question whether sex offenses can be treated like any other crime, and the extent to which the state can use criminal justice institutions as a lever in deterring it. Further complicating this is the fact that the probability of facing legal consequences for such crimes is rather low. The process is often retraumatizing for survivors, given the adversarial nature of criminal justice systems in most countries which pits the victim's word against the accused, and allows personal information, including sometimes the victim's therapy notes, to be brought into court to challenge their credibility [2]. Nearly 4 in 10 complainants in the United Kingdom, for instance, end up withdrawing their complaint, while less than 0.2 in 10 of those accused are convicted, arguably making the criminal justice system a stronger deterrent to victims than to perpetrators (House of Commons, Home Affairs Committee 2022).

In contrast to punitive approaches, another proposed avenue to reducing perpetration is changing social attitudes and gender norms. Policies in this domain, such as educating children in schools about consent, typically receive a fraction of the funding allocated to criminal justice interventions, and are usually implemented by civil society organizations (Home Office 2026; U.S. Department of Justice 2024). Campaigns to change societal attitudes and raise awareness likewise tend to arise from grassroots activism, with movements such as #MeToo and #TimesUp among the most prominent recent examples. Such interventions are generally considered distinct from changes to the criminal justice system. However, changes to criminal justice systems may themselves serve as signals from the state about what is socially and morally acceptable, while raising awareness about social issues (Tankard and Paluck 2017). Criminal justice institutions may therefore affect perpetration not only through the expected costs of offending, but also through the norms and social environment

[1] There are differing opinions on whether the appropriate term to denote those who have experienced sexual violence should be 'victim', 'survivor', or 'victim-survivor'. In this paper, we primarily use 'victim', as our main focus is their interactions with the criminal justice system. Additionally, not all those who experience such violence may survive. However, we use 'survivor' when appropriate, to acknowledge the agency and resilience embedded in all choices made.

[2] The United Kingdom only recently limited the use of a complainant's therapy notes in police investigations, decisions to prosecute, and court trials after years of activism (Home Office, U.K. 2026). Victims were generally advised not to seek mental health counseling if they were pursuing legal action.

surrounding sexual violence.

In this paper, we ask whether perpetration is responsive to institutional change, and whether this responsiveness operates through legal incentives or social norms. We study the staggered rollout of specialized sexual offenses courts (SOCs) in South Africa, a policy innovation that sits at the intersection of the different approaches mentioned above. SOCs have a dual purpose: they streamline the processing of sexual offense cases while providing a survivor-centered environment intended to reduce retraumatization and improve access to justice. In so doing, they have the potential to increase perceived enforcement as well as the salience of harm to victims, allowing us to speak to theories of perpetration, as well as effective institutional design.

South Africa provides a particularly important context in which to study these questions, as it has one of the highest reported rates of sexual violence in the world (United Nations Office on Drugs and Crime 2026). In many settings, data on sexual violence are difficult to obtain, due to low reporting by survivors, weak administrative data infrastructure, and limited disclosure in general-purpose surveys. South Africa, however, provides a valuable setting for overcoming some of these challenges: alongside substantial policy innovation, it has developed an extensive infrastructure of criminal justice institutions, specialized victim services, and civil society organizations, generating multiple complementary sources of data (The Presidency 2020). We bring together police reports, case-level records from the criminal justice system and specialized clinics, geolocated news coverage and civil society organizations, and nationally representative surveys. Combining these disparate sources allows us to triangulate changes in perpetration, distinguish them from changes in reporting and enforcement, and shed light on the mechanisms through which SOCs operate.

We find that SOCs reduce reported sexual offenses by 10-29%, depending on the inclusion of controls. Our evidence suggests that this is a real reduction in incidence, rather than reduced reporting by victims, or lower willingness to record by the police. This decrease is driven by reductions in rape and attempted rape, while reports of sexual assault – which is likely more prone to under-reporting and under-recording – remain stable. We also observe no change in withdrawals by victims at either police stations or courts, as we might expect if the decline were driven by changes in victim reporting or police recording (Smythe 2015). Finally, we do not observe any evidence of backlash or retaliation against victims, as rates of murders and homicides as well as grievous bodily harm remain unchanged.

To disentangle enforcement from social attitudes, we combine detailed data on enforcement on nearly 250,000 cases with information on the universe of civil society organizations providing victim support (also known as victim empowerment programs, or VEPs), survey measures of attitudes toward intimate partner violence, news articles from 60 South African outlets, and data from specialized clinics. SOCs increase the likelihood of enforcement: the probability of a case going to trial and receiving a conviction increase by around 17%. Additionally, we find that the reductions in sexual offenses are concentrated in areas with a high density of VEPs, even controlling for urbanicity, while enforcement is not. This suggests that increased enforcement alone cannot explain the reduction in perpetration, and points to a complementary role for victim-support networks.

Using survey data on attitudes toward wife-beating, we test whether SOCs are associated with a broader change in gender attitudes. We observe that years of exposure to SOCs are strongly correlated with less acceptance of wife-beating. We then test whether this correlation is driven by more progressive places receiving SOCs earlier. We find no correlation between years until the opening of SOCs and acceptance of wife-beating, forming suggestive evidence that SOCs may indeed change social norms.

Our results do not appear to be driven by contemporaneous changes in media coverage of sexual violence. While our two-way fixed effects design accounts for time-invariant differences across magisterial districts and common changes over time, local changes that both trigger the opening of an SOC and independently affect sexual offending remain a potential concern. Media coverage is a particularly important potential confound. We therefore scrape news articles from LexisNexis related to rape and sexual violence from South African outlets and test whether coverage changes around SOC openings. We observe no changes in either the number of rape-related articles or the proportion of rape-related articles focused on the judiciary.

We then test whether the nature of coverage changes with SOC openings, using large language models to classify the narrative structure of rape-related articles as episodic or systemic (Iyengar 1996). A large literature in Communications and Media Studies shows that episodic framing—presenting incidents as one-off stories decontextualized from broader societal problems—can lead people to ascribe individualistic causes to an incident. In contrast, systemic or thematic framing draws attention to broader social and societal factors and may be more likely to alter social norms. We measure systemic coverage as situating rape in the context of the broader problem of high crime rates, gender-based violence, or both. We find no effects in any of these domains. These results rule out media coverage as a mechanism as well as a potential confound for our results, bolstering support for advocacy by victim-support networks as the channel through which perpetration is reduced.

Finally, we examine which types of rape are most responsive to changes in legal incentives and social attitudes. We develop a typology of rape cases based on latent class analysis of data from specialized clinics known as Thuthuzela Care Centers that serve as one-stop centers for victims of sexual violence. This data contains granular information on victim and perpetrator age, the nature of their relationship, day, time and location of the assault, weapon use and number of perpetrators. Three main classes emerge from the data, suggestive of violent assaults by strangers, one-off assaults by acquaintances, and assaults of children after school by a known adult. We create proxies for these classes using our case-level data from the criminal justice system, using the variables available, as we do not directly have data on the victim-perpetrator relationship. We find suggestive evidence that acquaintance rapes reduce due to SOCs, while violence by strangers as well as offenses against children remain unchanged. This is consistent with a change in social norms; perpetrators who use extreme violence, or who abuse children, are likely engaging in a much higher level of reality distortion to avoid cognitive dissonance than those who commit an assault against

an older acquaintance [3].

We contribute to the nascent body of literature studying the motivations underpinning sexual violence at scale. This area has largely received attention from qualitative and theoretical scholarship, with feminist theory suggesting that the desire for power, sex, and control drive gender-based violence (Connell 2013; Porat et al. 2024). Recent empirical research (Gao and Petrova 2022; Immordino et al. 2020) is in line with this understanding, with authors finding that sexual and intimate partner violence serve as substitutes for paid sex. We advance this understanding further by providing evidence about the motivations underlying non-partner sexual violence. Despite being often conceptualized as impulsive or non-instrumental, we find that non partner sexual violence can respond to institutional change. However, this change is highly heterogeneous, with effects concentrated in areas with extensive victim-support networks and among types of perpetration that may be more responsive to social attitudes. Together, these findings suggest that institutions may alter perpetration both by changing the expected legal consequences of offending and by changing the social environment in which violence occurs.

We also provide one of the first evaluations of a public policy initiative that successfully reduces sexual violence. A growing literature shows that specialized institutional responses can improve outcomes for victims of gender-based violence, but has focused primarily on intimate partner violence (IPV). Specialized domestic violence courts have mixed but generally positive impacts on reporting, incidence, and judicial outcomes (Arteaga et al. 2025; Garcia-Hombrados and Martinez-Matute 2021; Golestani, Owens, and Raissian 2021). All-women police stations increased reporting of IPV in India (Amaral, Bhalotra, and Prakash 2021; Jassal 2020) and reduced homicides of young women in Brazil (Perova and Reynolds 2017), while women's help desks within Indian police stations increased the registration of gender-based violence cases (Sukhtankar, Kruks-Wisner, and Mangla 2022). One-stop centers for victims of gender-based violence in Peru reduced IPV and femicides while improving women's household bargaining power (Sviatschi and Trako 2024).

While evidence from IPV-focused interventions is informative, sexual violence by acquaintances or strangers – the type most likely to be reported to the police – may follow different dynamics. Unlike IPV, repeated interactions between victims and perpetrators are less likely to shape the behavior of either party. Further, the evidentiary requirements differ substantially, and the process of collecting such evidence may itself be retraumatizing for victims. Indeed, while the literature on specialized services for IPV indicate increases in reporting, with ambiguous effects on incidence, we find no change in a survivor's likelihood of remaining engaged with the criminal justice process, but find large effects on perpetration.

Taken together, our findings suggest that policymakers need not choose between enforcement, survivor support, and prevention. Institutions designed to make the criminal justice system more responsive to survivors may themselves reduce perpetration, particularly when embedded within a broader ecosystem of victim-support organizations. At the same time, heterogeneity across types of

[3]This may be understood in light of models of identity and cognitive dissonance, such as in the seminal work of Akerlof and Kranton (2000). In psychological language, our results suggest that such individuals may be more heavily defended than those who rape an older acquaintance.

sexual violence suggests that perpetration is not uniformly malleable, and that targeted interventions may be needed for different types of rape. Our results are far from definitive; rather, they provide a critical first step in understanding a complex topic of pressing importance and highlight concrete areas for further research. In particular, they suggest that the visibility of survivor support may itself aid in prevention.

Section 2 of this paper provides more context on South Africa's legal and policy landscape. Sections 3 and 4 elaborate on our data and methodology, while section 5 details key results. In section 6, we discuss the implications of our findings for research and policy.

2 Sexual Violence and Institutional Responses in South Africa

South Africa faces several intersecting challenges that impose considerable burdens on its institutional capacity, making the allocation of scarce public resources particularly consequential. It has one of the highest homicide rates, the largest population of HIV-infected people and one of the highest rates of unemployment in the world (Banerjee et al. 2008; Zuma et al. 2022). As a relatively young democracy that emerged from apartheid in 1994, South Africa continues to grapple with the legacy of highly militarized regimes that were designed to control the Black population, leaving a lasting imprint of institutional mistrust. Limited employment opportunities and the erosion of traditional social structures have also narrowed pathways for many young men to achieve socially valued forms of masculinity – a dynamic often linked to the country's persistently high rates of gender-based violence (Morrell 1998).

In response, the government has introduced specialized Sexual Offenses Courts (SOCs) as a flagship policy innovation to improve enforcement while providing a victim-centered approach to adjudication. Working alongside state institutions is an extensive network of grassroots organizations, known as Victim Empowerment Programs (VEPs), which provide support to victims and advocate on their behalf. South Africa is also unusual in the extent to which researchers have studied sexual violence from the perpetrator's perspective. Population-based studies have directly surveyed men about their perpetration of rape and other forms of sexual violence (Jewkes et al. 2002, 2012, 2011). This contrasts with the broader international literature, where general-population surveys have focused substantially more on victimization (Bhavsar and Oram 2026; CDC 2024), while perpetration remains comparatively under-measured, or focused on specific subsamples like college-going men (Anderson et al. 2021). Due to these efforts, we are able to build upon an already fairly detailed picture of perpetration in this context. Below, we summarize the landscape of this work, and then describe the roles of SOCs and VEPs.

2.1 Patterns of Sexual Violence

Survey evidence indicates that rape is widespread in South Africa: nearly 30% of men report having had sex with a woman or girl without her consent, with a majority perpetrating more than once (Jewkes et al. 2010, 2011). About 18% admitted to raping a child younger than 15, and most rapes

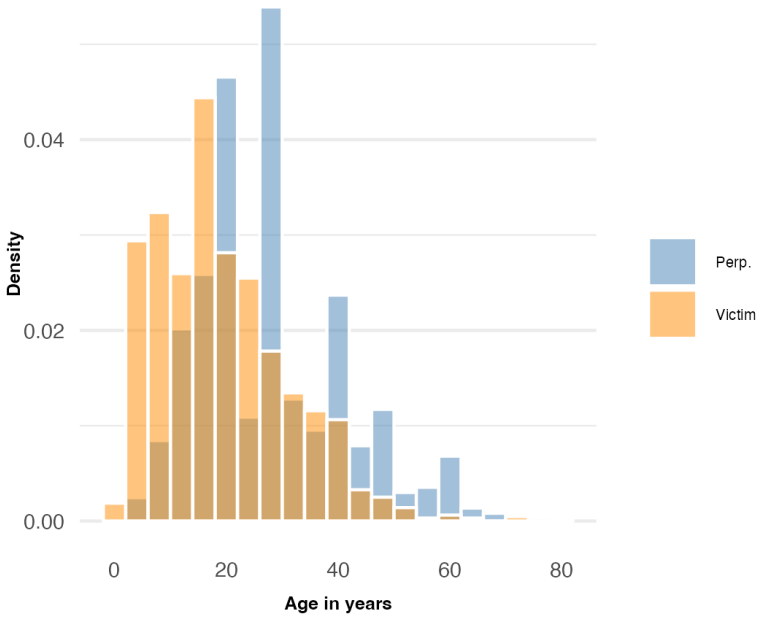
occur outside of intimate partnerships. Nearly 80% of perpetrators reported assaulting a stranger or acquaintance, while about 30% participated in multi-perpetrator rapes.

The primary motivations reported for rape suggest a sense of entitlement, including wanting sex in general, desiring a specific victim, seeking to demonstrate coercive power, or using rape as sexual experimentation. Among those who raped young girls, about half cited the belief that the child would not disclose the assault. Alcohol was also cited as a contributing factor by roughly one-third of perpetrators.

Early experiences of trauma, such as parental abuse or neglect, or bullying, are significantly associated with rape perpetration (Jewkes et al. 2009). Perpetration rates follow an inverse-u relationship with education and income, which lends support to the idea of rape as a tool for asserting dominance (on the lower end) and exploiting power imbalances (on the higher end).

Despite these motivations and precipitating factors, two-thirds of perpetrators reported feeling guilt, suggesting awareness that their actions were harmful and wrong. Thus, while impulsivity and inebriation play a role, most perpetrators act with knowledge of the consequences, deliberately target vulnerable victims, and are sensitive to potential social and legal sanctions. This implies a significant potential for policies to leverage such guilt and fear to reduce perpetration. SOCs are particularly well-poised to do this, given their institutional design: they can raise the perceived probability of legal sanctions, while simultaneously making salient the seriousness of harm to victims.

Figure 1: Distribution of victim and perpetrator ages



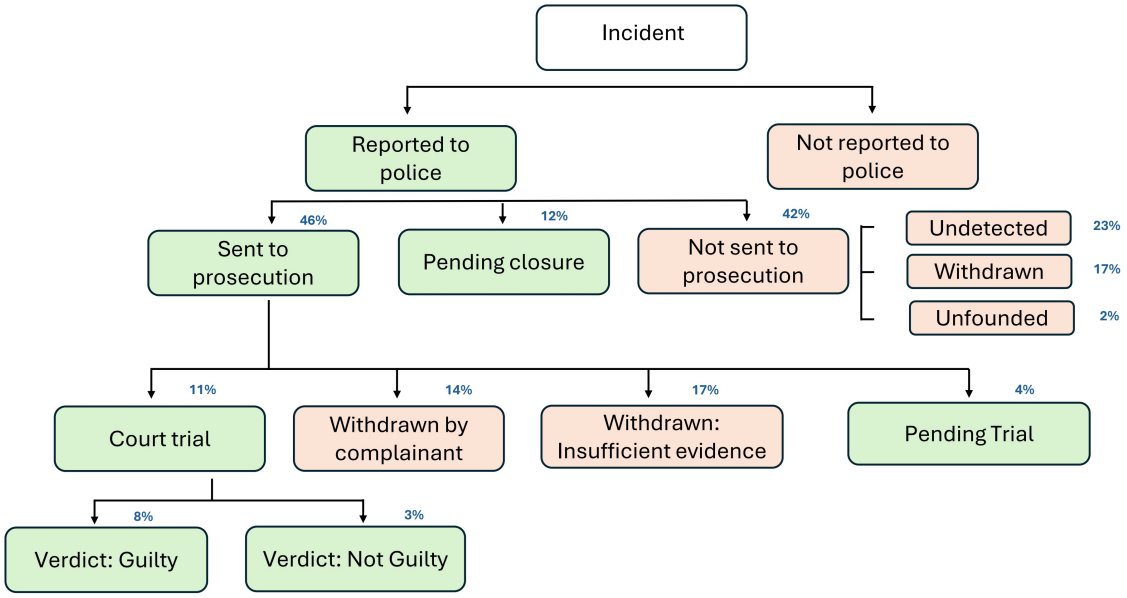
Notes: Data for this figure is drawn from case-level records from a Thuthuzela Care Center.

Victims typically tend to skew younger, while perpetrators tend to be older. Figure 1 shows the age distribution of victims vis-a-vis perpetrators, based on data from a specialized clinic. The median age of victims is 18, and 25% of victims are below the age of 10, while the median perpetrator age is 30 [4]. There is considerable variation in the types of abuse: about 13% of those seeking help at the clinic were abused by a family member, over a quarter were assaulted by someone they didn't know, and the majority (around 61%) were assaulted by a non-family member whom they knew. These forms of abuse may operate through distinct channels, and SOCs may have differential effects on each.

2.2 Specialized Courts for Sexual Offenses (SOCs)

Survivors face substantial barriers to reporting, including fear of retaliation, self-blame, shock, concerns about negative reactions, and low trust in institutions (Orchowski et al. 2022). A majority of reported rapes in South Africa are violent and result in injuries to victims around sexual organs as well as other parts of the body (Machisa et al. 2017). The collection of forensic evidence, filing of a report, delays in waiting for the case to go to trial, and ultimately being cross-examined in an adversarial setting in court can be retraumatizing for victims, and dissuade them from engaging with the criminal justice system.

Figure 2: Case flow through the justice system

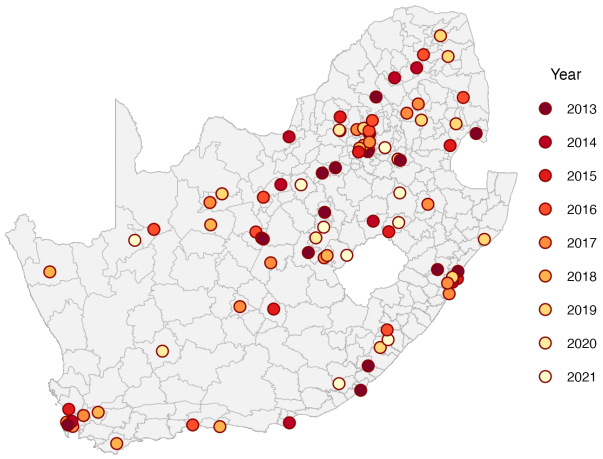


Notes: These percentages come from the final year of rape cases from our criminal justice panel, discussed in Section 3. The pink cells represent various points of attrition from the criminal justice pipeline.

[4]There is a small proportion of "perpetrators" who are young children; these are typically children who have been abused themselves, and are re-enacting their abuse with another child, lacking awareness of the harms from actions.

Figure 2 above shows the different pathways a case can take, highlighting the myriad points of attrition from the criminal justice system. Only an estimated 1 in 9 victims file a report with the police (Jewkes et al. 2002). Among those that are reported, only about 11% make it to court, with the majority either not sent to prosecution at all, or withdrawn by the complainant. To make the process smoother for survivors, SOCs were piloted in 1994, and reintroduced in 2013, with 90 courts currently in operation across magisterial districts nationwide. These courts deal exclusively in, or prioritize the resolution of sexual offenses.

Figure 3: Rollout of SOCs across South Africa



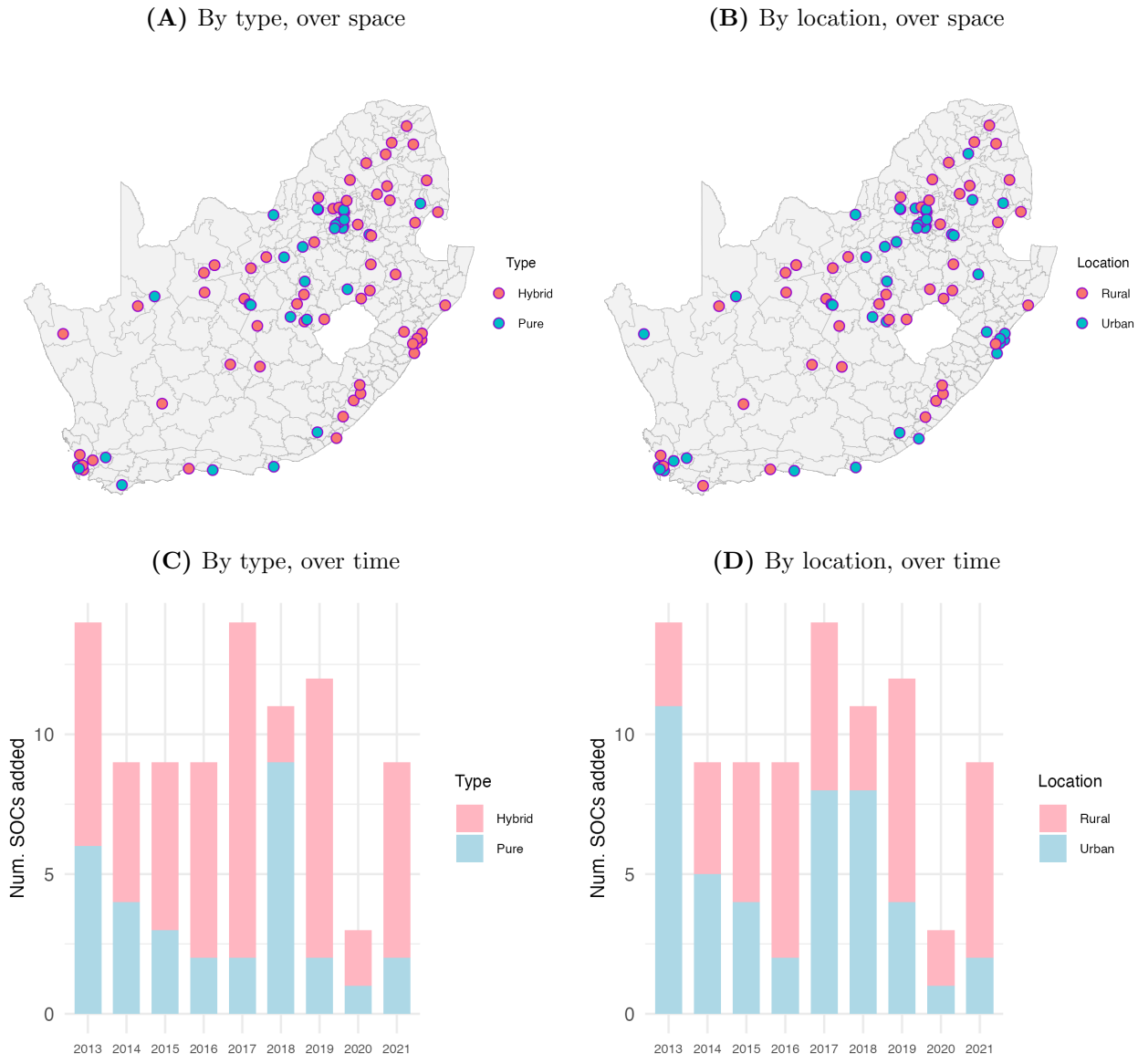
There is considerable spatial and temporal variation in the rollout of SOCs, as seen in figure 3, providing an ideal setting for an event-study design. These courts aim to have the following amenities:

- Specially trained prosecutors, court supporters and magistrates.
- A designated courtroom equipped with CCTV and sound equipment and/or one-way glass.
- A special room from which the victim will testify, designed to a minimum standard of safety and comfort.
- A private waiting room and/or play area for victims and their families, which must be informally arranged.
- Specialist interpreters trained in child development and those working with the mentally disabled.

The jurisdiction of an SOC is a magisterial district; cases that fall within a given magisterial district are adjudicated by its corresponding SOC. At present, 84 of 316 magisterial districts have

an SOC. Courts that have all of the above amenities and exclusively resolve sex offense cases are known as "pure" courts, while those that prioritize sex offenses while adjudicating other cases are known as "hybrid" courts. Hybrid courts make up the majority of courts, although both types of courts have been built over the years. Hybrid courts tend to be in magisterial districts that do not have a large enough caseload of sex offenses to justify its exclusive prioritization. Figure 4 below shows the geographic and temporal distribution of pure versus hybrid courts, alongside heterogeneity based on the location (urban versus rural) for comparison. While there is overlap between SOCs in urban areas and pure SOCs, the two are not identical.

Figure 4: SOC rollout by type and location

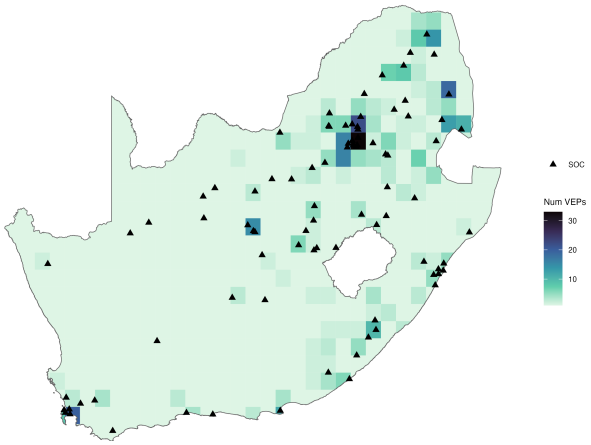


Notes: Panels A and C show the distribution of pure and hybrid courts geographically and over time, while panels B and D do the same for urban and rural courts.

2.3 Victim Empowerment Programs (VEPs)

The South African government maintains a database of non-governmental organizations providing victim empowerment programs (VEPs) (National Department of Social Development 2022). These provide a range of services, from assisting victims with filing complaints and following up with the police on their behalf, to counseling, legal advocacy and shelters. VEPs include Thuthuzela Care Centers, which are specialized clinics that serve as one-stop centers for victims of gender-based violence, and typically serve victims of sexual violence. Survivors receive all the services they may require at Thuthuzela Care Centers, including filing a complaint with the police, receiving a forensic examination, counseling, and obtaining post-exposure prophylaxis for HIV.

Figure 5: VEP density around SOCs



Notes: This figure plots SOCs (denoted by solid triangles) against the distribution of VEPs aggregated to grid cells of roughly 50×50 km. The VEP's are geolocated from a government database as of 2022.

VEPs also conduct awareness and advocacy campaigns in communities, and are a critical component of South Africa's National Strategy to combat gender-based violence. The presence and activities of VEPs may thus amplify the broader social signal generated by SOCs. Figure 5 plots the locations of VEPs alongside those of SOCs, and reveals that while some SOCs are connected with a dense network of VEPs, others appear more isolated. We use this variation to test for heterogeneity in treatment effects, to examine the role of grassroots activism and norm change.

3 Data

We combine data from multiple sources to estimate the effects of SOCs on reported sexual violence and criminal justice outcomes, distinguish changes in incidence from changes in reporting, and investigate the mechanisms underlying these effects. Our main results derive from publicly available police data, hosted on a website maintained by the Institute for Security Studies (ISS) in South Africa. We scrape data for all available years and crime categories for every police precinct in the country. We limit the sample period to cases reported from 2010 to 2025. South Africa amended its

definition of rape in 2007, so we only consider data from 2010 onward to allow time for recording changes to take effect. The rollout of SOCs only began in 2013, so starting from 2010 gives us sufficient pre-period data.

This process yields data for 1,168 police stations across 16 years and 316 magisterial districts. The relevant crime category for our main analysis is Total Sexual Offenses, which is composed of Rape, Attempted Rape, and Sexual Assault. An average of about 55,000 cases of sexual offenses are reported every year. We also utilize data on Murders, Homicides, Attempted Murders and Grievous Bodily Harm to disentangle whether the changes we observe are due to reporting or incidence. We call this our "crime panel" for ease of reference. For most analyses, we use crime counts at the police-station or magisterial-district level. Appendix A discusses this choice in more detail.

To estimate changes in enforcement, we applied for and obtained detailed case-level records from the South African Police Services. This data contains the status of sexual offense cases in the criminal justice pipeline shown in figure 2. Due to recording practices, we were only able to obtain data from 2017-2023 – a smaller time window than our main analysis. Nonetheless, our data spans nearly 250,000 cases for the entire country, with detailed information on victim age, gender and race, perpetrator age and gender, weapon use, number of perpetrators, date and time of the assault, and status of the case. This gives us granular information not only on the nature of the incident, but also on actions taken by the police, such as detection of the perpetrator and sending the case to prosecution, as well as the actions of prosecutors and judges such as sending the case to trial, conviction, and sentencing. Some variables are available only for particular offense types: information on the accused is available only for attempted rape and sexual assault, while sentencing outcomes are available only for rape. Moreover, information on the accused is necessarily observed only when a perpetrator has been detected. We refer to this database as our "criminal justice panel" for simplicity. We remove observations that appear to be duplicated, which reduces our sample size by nearly 10%. Our results are not sensitive to this removal.

Our criminal justice outcomes are binary variables for various actions by the police and judiciary, and for victim withdrawals at either the police station or in court. These include whether a case remains undetected (i.e., the perpetrator is not found), is closed by the police, is referred for prosecution, is dismissed for lack of evidence, proceeds through a completed trial, results in conviction, and results in sentences of various lengths. We analyze the probability of each outcome rather than aggregate counts because SOCs may themselves affect the number of cases reported, making changes in the total number reaching each stage difficult to interpret.

We georeference the crime and criminal justice panels to shapefiles of magisterial districts, obtained from the website of the Department of Justice and Constitutional Development of the Republic of South Africa, and map these magisterial districts to districts and provinces using country shapefiles from the humanitarian data exchange repository (DOJ & CD 2022; OCHA 2022).

We additionally requested data on specialized clinics for victims of sexual and gender-based violence, known as Thuthuzela Care Centers (TCCs). We applied for and obtained this data from the National Prosecuting Authority, yielding data from five clinics from 2017-2022 aggregated by

month, and case-level data from an additional clinic for two years. This data contains a rich set of covariates on the nature of the victim-perpetrator relationship, location of the incident, and whether or not the incident was reported to the police, in addition to variables on the victim, perpetrator and case akin to the criminal justice panel. We use this data for descriptive analyses, as well as developing a typology of cases using latent class analysis. We will henceforth refer to this as "TCC data". Based on this typology, we use variables available in the criminal justice panel to proxy for the nature of the relationship between the victim and perpetrator. This allows us to study heterogeneity across substantively meaningful patterns of perpetration rather than estimating a large battery of difficult-to-interpret effects for individual case characteristics. It also reduces the multiple-hypothesis-testing problem that would arise from separately testing treatment effects across the full set of available covariates.

3.1 VEPs and Social Attitudes Data

As discussed above, SOCs may change perceived enforcement as well as the salience of harm to victims. To help distinguish these mechanisms, we geolocate the universe of civil society organizations providing victim support, known as victim empowerment programs or VEPs. We obtain coordinates for 567 VEPs across the country, providing a measure of the local presence of victim support and advocacy. We test for heterogeneity in treatment effects based on the concentration of VEPs within a police precinct's catchment area, controlling for urbanicity.

If the survivor-centric component of SOCs increases the salience of harm to victims, we would expect its effects to be stronger in areas with a greater presence of VEPs, where victim support and advocacy may be amplified. We complement this analysis by testing whether attitudes toward wife-beating differ with exposure to SOCs. Ideally, we would measure attitudes toward sexual violence directly, such as acceptance of rape myths. However, nationally representative data on such outcomes are unavailable, so we use acceptance of wife-beating as a proxy for attitudes toward gender-based violence more broadly. We draw on the 2020 Governance, Public Safety, and Justice Survey and the 2016 Demographic and Health Survey, both of which measure whether respondents consider wife-beating justified for child neglect, refusing sex, burning food, going out without permission, or arguing.

3.2 Newspaper Data

A further potential mechanism operates through media coverage. High-profile cases of sexual violence may both contribute to the establishment of SOCs and generate broader discussion about sexual violence and the treatment of women. Conversely, media coverage of SOCs and sexual-offense cases may amplify the courts' effects by increasing their public salience. To investigate these possibilities, we scrape LexisNexis for news articles from 60 English-language South African news outlets, containing the keywords 'rape', 'sexual assault', 'sexual harassment' and 'sodomy'. This yields 97,866 articles published between 2009 and 2023. We classify articles as "court-related" using a regular-expression search for the terms 'court', 'trial', 'prosecution', 'conviction', or 'guilty'.

We use GPT-4o-mini, a large language model, to extract the locations of rapes from these articles. We geo-reference these locations to our magisterial districts using the Google Maps API. This yields approximately 40,925 geolocated articles; excluded articles either do not discuss a specific incident of rape or concern incidents occurring outside South Africa. Because a single article can discuss multiple incidents, these articles correspond to 44,759 geolocated rapes.

We additionally use GPT-4o-mini through the batch API to classify articles into one of four categories according to their narrative framing:

1. *Episodic*: the case is presented as a discrete incident without being contextualized as part of a broader social pattern;
2. *Systemic–Crime*: the case is contextualized within the broader problem of high crime rates;
3. *Systemic–Gender-Based Violence*: the case is contextualized as part of a broader pattern of gender-based violence; and
4. *Systemic–Both*: the case is contextualized in terms of both high crime rates and gender-based violence.

This classification allows us to examine changes in the framing as well as the volume of media coverage. Systemic framing, sometimes termed thematic framing, can prime readers to attribute social problems to structural or societal rather than individual causes (Iyengar 1996). If SOC openings coincide with, or contribute to, a broader shift in public discourse around sexual violence, we would therefore expect to observe an increase in the share of cases receiving systemic rather than episodic coverage.

4 Empirical Strategy

The primary challenge to identifying the causal effects of SOCs is that they are not opened at random. Magisterial districts are selected based on a combination of need — such as high crime rates — and equity considerations, including prioritizing access in remote areas. As a result, simple comparisons across districts or over time may be biased. If we compared, for instance, magisterial districts with SOCs to those without, we would likely underestimate their impact, as magisterial districts with SOCs likely have more sex crimes to begin with. A pre-post comparison within treated magisterial districts, in contrast, is likely to overestimate the impact of SOCs, as sex crimes may be declining over time due to broader social and cultural trends across the country.

We address these concerns by leveraging variation in both the timing and location of SOC openings in a two-way fixed effects design. We estimate the following specification:

$$Y_{m,t} = \beta_0 + \beta_1 SOC_{m,t} + \delta_m + \gamma_{d,t} + \epsilon_{m,t}; \tag{1}$$

where $Y_{m,t}$ indicates the number of rapes in magisterial district m at year t, and $SOC_{m,t}$ is a binary variable equal to one if a specialized court is open in district m during year t. Time-invariant

differences between magisterial districts are captured by δ_m, while $\gamma_{d,t}$ are district-year fixed effects, which account for shocks that vary over time across higher-level administrative divisions, such as district-level policy changes or campaigns. The error term $\epsilon_{m,t}$ is clustered at the magisterial district level.

There are six magisterial districts with two SOCs. For these districts, we define the treatment year as the year in which the first SOC opened.

The coefficient of interest, β_1, captures the average change in sexual offense reporting in magisterial districts following the opening of an SOC, relative to changes in districts without an SOC, conditional on these fixed effects. Identification relies on the parallel trends assumption: in the absence of an SOC opening, treated and untreated magisterial districts would have followed similar *trends* in the reporting of sexual offenses, even if they differ in levels. To assess the plausibility of this assumption, we estimate an event-study specification that allows us to test for differential pre-trends and examine the dynamics of treatment effects, given by equation 2:

$$Y_{m,t} \;=\; \gamma_0 \;+\; \sum_{i=-6,\, i\neq -1}^{6} SOC_m \cdot \beta_i \, I(\tau_{m,t} = i) \;+\; \delta_m \;+\; \gamma_{d,t} \;+\; \varepsilon_{m,t} \tag{2}$$

where $\tau_{m,t} = i$ is an indicator that district m is i years from the SOC opening in year t (leads for $i < 0$, lags for $i > 0$), with $i = -1$ omitted as the baseline. The coefficients β_i trace the dynamic effects from binned lead -6 to binned lag 6. Magisterial district and district-year fixed effects are δ_m and $\gamma_{d,t}$, and errors ε_{mt} are clustered at the magisterial district level.

We bin the leads and lags for ease of representation; the binning does not substantively alter our results. Because conditioning on time-varying covariates can alter the identifying assumptions required for difference-in-differences estimation (Caetano and Callaway 2026), we also report a less restrictive specification that replaces district-year fixed effects with year fixed effects in panel A, figure 24 of appendix D. In panel B, we add district-level linear time trends as an additional robustness check.

Treatment effects may also vary across cohorts or over time, in which case conventional two-way fixed effects estimators can place weight on comparisons between already-treated and newly treated units. We therefore decompose our two-way fixed effects specification into the full set of 2×2 comparisons underlying the estimate and show that these "forbidden comparisons" contribute a negligible amount to our estimates (Goodman-Bacon 2021). We additionally show that our main results are robust to alternative estimators such as Butts and Gardner (2022) and Sun and Abraham (2021). These analyses are presented in Appendix B.

4.1 Criminal justice and media panels

To measure changes in enforcement, we examine whether SOCs alter the probability that the perpetrator is detected, and that the case is sent to court, proceeds to trial, or results in a conviction. We estimate these regressions at the case level rather than aggregating outcomes to the magisterial district level. This is because using aggregate levels would make interpretation challenging, as the

total number of cases being reported are changed by SOCs. We still cluster at the magisterial district level, and include the same fixed effects as in equation 1, but the dependent variable is now a binary indicator at the case level, where i represents a case.

$$Y_{i,m,t} = \beta_0 + \beta_1 SOC_{m,t} + \delta_m + \gamma_{d,t} + \epsilon_{m,t}. \tag{3}$$

We do not condition case-level characteristics, as these are likely to be impacted by treatment, and would hence be bad controls. Instead, we examine changes in case composition directly. We use latent class analysis of detailed TCC records to identify distinct case types, construct proxies for these types in the criminal justice data, and estimate equation 3 using indicators for these case types as outcomes. We describe this procedure in the next subsection.

The inclusion of district-year fixed effects means that identifying variation compares magisterial districts receiving SOCs at different times within the same broader district-year environment, absorbing district-specific time-varying shocks such as economic conditions or policy changes. A magisterial district-year-specific shock to sexual violence that both triggers an SOC opening and changes subsequent offending could nevertheless confound our estimates. One concern is that SOC openings may be spurred by news coverage of high-profile sexual violence cases in the area. We therefore examine whether SOC openings are preceded by or associated with changes in local media coverage. We run regressions analogous to equations 1 and 3, where $Y_{m,t}$ represents the number of news reports on sexual violence or the judicial process, while $Y_{i,m,t}$ indicates whether an article is judiciary-related cases, or of cases with episodic or systemic framing.

4.2 Latent Class Analysis

To characterize the composition of sexual offense cases, we construct a case typology using latent class analysis (LCA) applied to detailed case-level records from a TCC. We then identify observable characteristics that are particularly diagnostic of each latent class and use these to construct proxies for the same case types in the larger criminal justice dataset. LCA models the joint distribution of observed case characteristics as arising from a finite number of unobserved, or "latent," classes. It estimates both the prevalence of each class and the probability of observing particular case characteristics conditional on class membership. As an example, one of the outputs would be the probability of observing a morning assault, given membership in class 1.

Formally, let $i = 1, \ldots, N$ index cases and $j = 1, \ldots, J$ index the manifest variables, where each variable j takes one of R_j discrete response categories, indexed $r = 1, \ldots, R_j$. We posit an unobserved discrete latent class variable $X_i \in \{1, \ldots, K\}$, where K is the number of latent case types. Each case belongs to exactly one class with unconditional probability defined by

$$\pi_k = \Pr(X_i = k), \qquad \sum_{k=1}^{K} \pi_k = 1. \tag{4}$$

We define case types over a set of manifest variables recorded at the specialized clinic, including

the relationship between victim and perpetrator, weapon use, location of the incident and the time and day of the assault. The model is estimated using full-information maximum likelihood, allowing cases with partially missing manifest variables to contribute information through their observed responses. We estimate latent class models for candidate class counts ranging from 2 to 6, selecting the final specification with 3 classes on the basis of the Bayesian Information Criterion.

To interpret the resulting classes and construct observable prototypes, we rank features according to how disproportionately common they are within a class relative to the full sample. Specifically, for each class-characteristic combination, we calculate the ratio

$$Pr(y_{ij} = r \mid X_i = k)/Pr(y_{ij} = r), \tag{5}$$

and name the classes based on these prototypical variables. We obtain classes that appear to correspond to violent assaults by strangers late at night, assaults by acquaintances late at night, and assaults against children by a known adult or family member after school. We use available variables in the criminal justice data to classify prototypical cases of each category, covering about 15% of the sample.

4.3 Social attitudes data

To measure changes in social attitudes, we use data from the Demographic and Health Survey of 2016 and Governance, Public Safety and Justice Survey of 2020, which ask about respondents' acceptance of intimate partner violence. We provide suggestive evidence on social attitudes by estimating the following equation for both survey waves separately, weighted by the appropriate survey weights, and controlling for individual-level socioeconomic characteristics X_i.

$$Y_{i,m,t} = \beta_0 + \beta_1 \text{Years Exposed}_{m,t} + \psi X_i + \gamma_d + \epsilon_{m,t}; \tag{6}$$

The coefficient β_1 captures the conditional association between years of exposure to an SOC and the acceptability of beating one's wife under various circumstances. These estimates are not causal: districts with more progressive attitudes may, for example, have received an SOC earlier. To examine this possibility, we use the 2016 Demographic and Health Survey to test whether attitudes prior to treatment predict subsequent SOC timing. Among magisterial districts that received an SOC after 2016, we estimate whether the number of years *until* an SOC opens is correlated with attitudes:

$$Y_{i,m,t} = \beta_0 + \beta_1 \text{Years Until SOC opening}_{m,t} + \psi X_i + \gamma_d + \epsilon_{i,m,t}; \tag{7}$$

Finally, we examine treatment-effect heterogeneity based on the concentration of Victim Empowerment Programme (VEP) organizations. We estimate these regressions at the police-precinct level, denoted by the subscript p, allowing us to leverage variation in VEP concentration within magisterial districts:

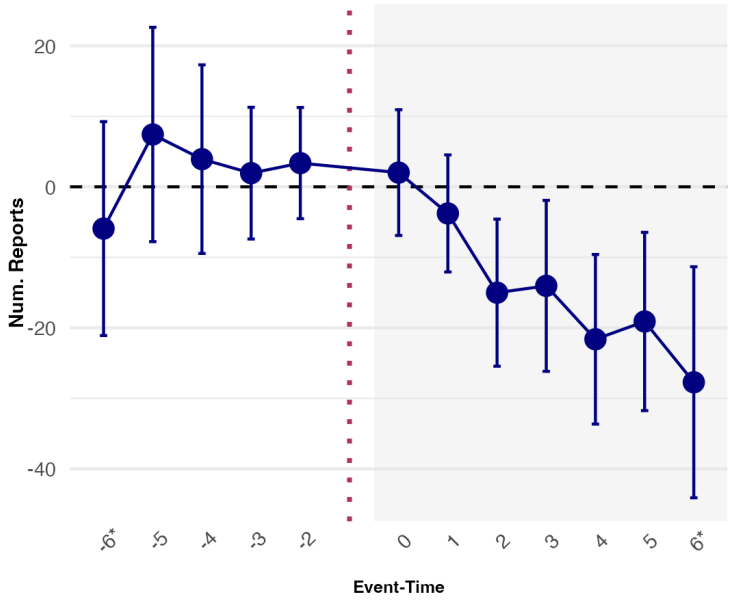
$$Y_{p,t} = \beta_0 + \beta_1 SOC_{p,t} \times \text{High NGO concentration} + \delta_m + \gamma_{d,t} + \epsilon_{p,t}. \quad (8)$$

To separate the effects of urbanicity from VEP density, we add an additional interaction with an indicator for courts in urban areas, to 8.

5 Results

We run a battery of regressions at the magisterial district, police station, and individual case level to examine how the perpetration of sexual violence changes in response to SOCs, and to shed light on mechanisms. The event study plot below shows the effect of SOCs on reported total sexual offenses, controlling for magisterial district fixed effects and district-year fixed effects, with binned leads and lags.

Figure 6: The Impact of SOCs on Total Sexual Offenses



Notes: This figure reports event-study estimates from equation 2. The outcome is the total sexual offenses reported to the police, aggregated to the magisterial district level. This specification includes magisterial district and district-year fixed effects. Leads and lags are binned at 6 years prior to or following an SOC opening respectively. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

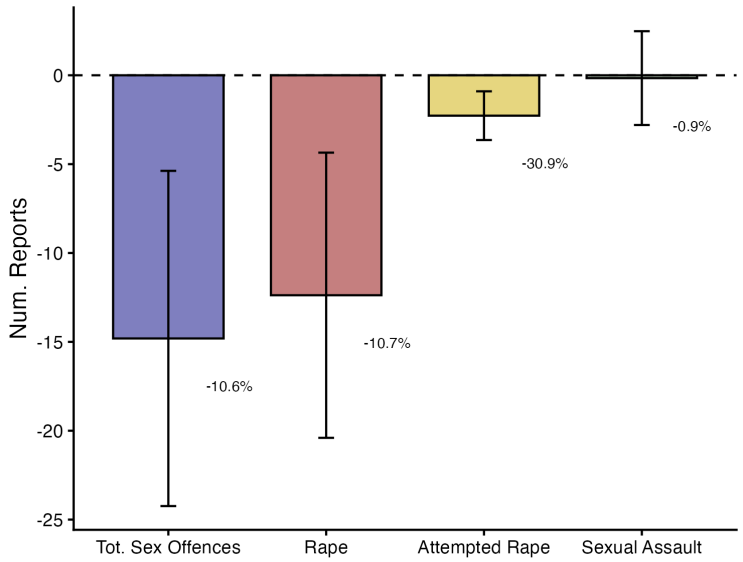
The "treatment effect" in the pre-treatment period, i.e. from years -2 to binned -6 is not significantly different from 0, providing evidence in favor of the parallel trends assumption. We see a clear and steep decline in reports of total sexual offenses after the opening of SOCs. In figure 24 in the Appendix, we present a less restrictive version with year fixed effects rather than district-year fixed effects in panel A and more restrictive district-level linear time-trends in panel B. In our least

restrictive specification, the estimated effects are around 24%, which drops to around 10% with the inclusion of district-year fixed effects. We prefer the latter specification all the same, to account for district-level changes in policies around factors that may impact sexual violence, such as alcohol and guns.

We also test robustness to alternative specifications such as Butts and Gardner (2022) and Sun and Abraham (2021), and find similar results. Appendix B presents these results in figure 21. We also plot the effects from all the 2×2 difference-in-differences that contribute to a two-way fixed effects estimate in figure 20, as outlined in Goodman-Bacon (2021). We find that "forbidden comparisons" contribute a negligible amount to our two-way fixed effects estimates, and so we use this for all our specifications as it is less demanding on statistical power.

We decompose total sexual offenses into its constituent parts – rape, attempted rape, and sexual assault – which make up about 80%, 7% and 13% of all cases in our sample period. Figure 7 shows estimates from equation 1 for these variables. The leftmost bar shows the static version of the dynamic event study plot in figure 6, and the bars to its right show the decomposition of effects.

Figure 7: Impact of SOCs, by offense type



Notes: This figure reports event-study estimates from equation 1. The outcomes are total sexual offenses reported to the police, and its constituent parts – rape, attempted rape, and sexual assault – aggregated to the magisterial district level. Percentages are computed as a ratio of the effect size to the control group mean. These specifications include magisterial district and district-year fixed effects, as outlined in equation 1. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

We observe that the declines in total reported sexual offenses stems from rape and attempted rape, which are less likely to be under-reported, while rates of sexual assault remain stable. The dynamic event-study version of these plots can be found in figure 25 in appendix D.

5.1 Reduction in Incidence versus Reporting/ Recording

Data based on police reports present an inherent challenge: changes we observe may reflect not just a change in the actual incidence of the crime, but also in victims' propensities to report, or in police recording behavior. We present several pieces of evidence that suggest a true decline in incidence.

Firstly, if the opening of SOCs make victims less likely to report due to retaliation by perpetrators, we would expect to see an increase in homicides or violent assaults, with the former in particular being less likely to be under-reported. Table 1 shows no impact of SOCs on deaths or grievous bodily harm, although we are unable to disaggregate this by gender.

Table 1: Impact of SOC on violent assaults and deaths

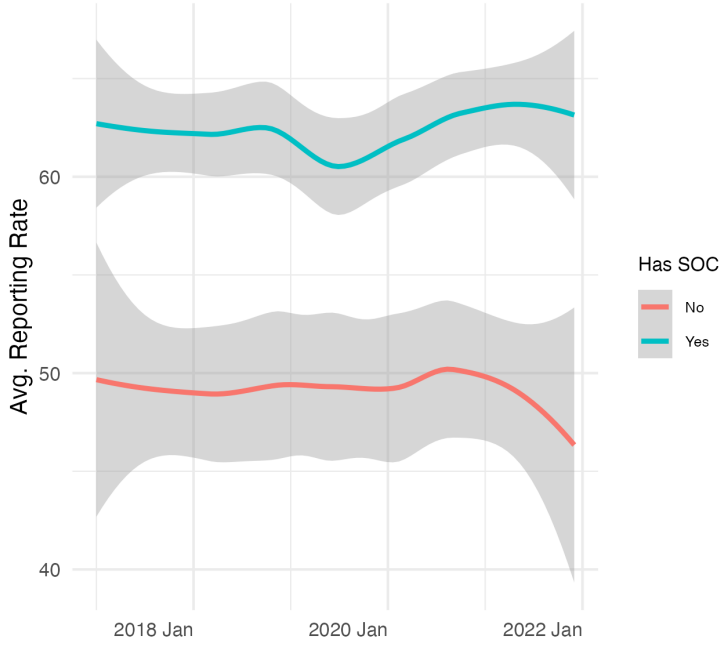
	Deaths	GBH
Treat × Post	0.616	-24.533
	(4.186)	(20.416)
Magisterial District FE	X	X
District-Year FE	X	X
Observations	4740	4740
Adj. R2	0.964	0.980
Dep. var. mean	72.706	515.052

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Notes: (1) Deaths include murders and homicides; GBH includes Grievous Bodily Harm and Attempted Murders.

(2) Standard Errors, in parentheses, are clustered at the magisterial district level.

Figure 8: Percentage reported to the police



Notes: This figure plots the proportion of survivors who visit specialized clinic and choose to file a police report. The green line aggregates data from four clinics that became affiliated with an SOC either before the sample period of 2017-2022, or shortly after the start of the sample period. The orange line plots the percentage reported for one clinic that was not affiliated with an SOC during the sample period.

Further, if there was increased pressure on victims to not report, withdrawal rates would likely increase as well. The bottom-most panel in figure 9 shows that, if anything, victim withdrawals reduce at the police station level, although this is not significant. The fact that we do not observe changes to reports of sexual assault is also incongruent with a change in police propensities to record, as this would likely be uniform across cases, and perhaps even exacerbated for sexual assault.

Additionally, settlements with perpetrators tend to happen informally, when survivors withdraw their case (Smythe 2015). The absence of changes to withdrawals hence rules out this mechanism.

Lastly, we provide descriptive evidence that suggests that survivors' willingness to report has not changed. Figure 8 plots the percentage of survivors who decide to file a police report, based on data from five specialized clinics for the period 2017-2022. Four of these clinics became affiliated with an SOC either before or soon after the start of the sample period, while one clinic remained unaffiliated until the end. These percentages reported for the four treated clinics are averaged up, and plotted against the untreated clinic. While this is not causal, the data we have suggests that reporting rates have stayed stable over time.

Taken together, our results indicate that perpetrators do indeed respond to the changes in the socio-legal environment created by SOCs. In the next subsections, we explore the role of both enforcement and social norms.

5.2 Mechanisms - Enforcement and Norms

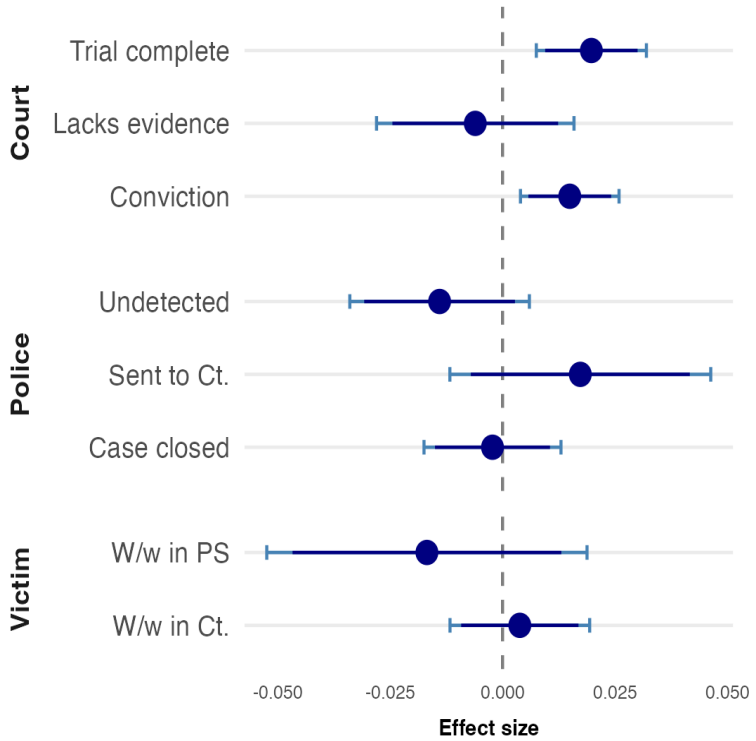
As outlined in previous sections, SOCs have the potential to alter both the perceived probabilities of enforcement, as well as social norms, due to its survivor-centric design. We first examine the impacts of SOCs on enforcement, and then assess the role of social norms and the salience of harm to victims.

5.2.1 Criminal Justice Outcomes and Social Attitudes

We estimate the impact of SOCs on various steps of the criminal justice pipeline, outlined in figure 2. The results are presented in figure 9. Outcomes are grouped by decision-maker, providing insights into how the actions of court officials, police and victims are impacted by SOCs.

We see large improvements in the probability of enforcement: in the topmost panel of figure 9 corresponding to court actions, we see increases in the probabilities of trial completion and conviction corresponding to a roughly 17% increase each. The middle panel, corresponding to police actions, suggests that the likelihood of detecting perpetrators and sending cases to court also increases, although we are underpowered to detect significant effects.

Figure 9: Impact of SOCs on the probabilities of actions by the court, police, and victim



Notes: The coefficients above represent estimates from the static two-way fixed effects model specified in equation 3. The outcomes are binary variables that indicate the status of the case. The topmost panel reflects decisions made by prosecutors and judges. The panel in the middle reflect actions taken by the police. The lowermost panel reflects withdrawals by survivors at either the police station or in court. Error bars represent 90% and 95% confidence intervals.

Withdrawal rates by victims at either police stations or courts do not appear to be changed, providing further evidence that victims' propensity to engage with the criminal justice system has not changed, and the improvements we observe in crime rates and criminal justice outcomes are not driven by waning victim engagement [5]. Corresponding to the increase in conviction rates, we see an increase in the likelihood of perpetrators receiving a sentence. However, it does not appear to be the case that SOCs impose harsher penalties than non-specialized courts. Table 2 shows the effect of SOCs on the probabilities of different sentence lengths.

We see increases in the probability of a sentence greater than one or two years, but not in the probability of sentences greater than 5 or 10 years, even though the latter are the most likely sentences to be meted out in our sample. Thus, it appears unlikely that incapacitation is driving our results on perpetration, particularly since these effects reflect probabilities and not numbers. Further the effects of SOCs begin a year or two after their opening, while the criminal justice effects commence immediately after the opening of the court. Enforcement is hence unlikely to be the sole mechanism for our observed effects.

Table 2: Effect of SOC on Sentencing Outcomes

Outcome	Treat	Control Mean
Sentence $\geq$ 1 Year	0.011*	0.077
	(0.006)	
Sentence $\geq$ 2 Years	0.011**	0.076
	(0.006)	
Sentence $\geq$ 5 Years	0.008	0.071
	(0.006)	
Sentence $\geq$ 10 Years	0.008	0.054
	(0.005)	
Life Sentence	0.000	0.014
	(0.003)	
Observations	214,012	
Magisterial District FE	Yes	
District $\times$ Year FE	Yes	

Notes: The dependent variable is an indicator for various sentence lengths. Standard errors, in parentheses, are clustered at the magisterial district level. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

To test whether changes in social attitudes play a role, we examine heterogeneity based on the

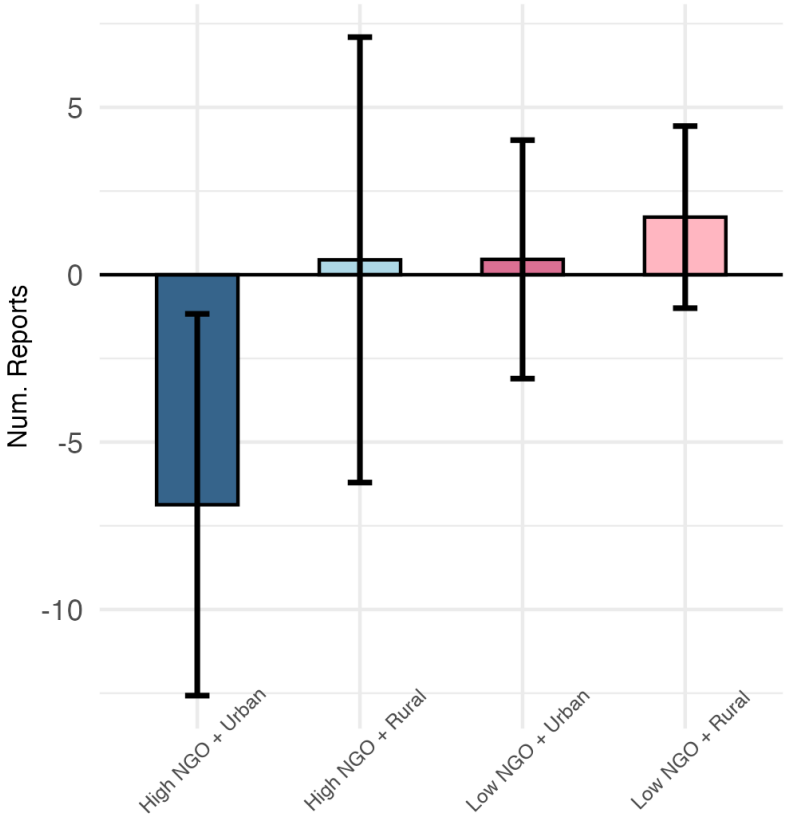
[5]Victim engagement is not the main focus of this paper, but we want to note that it is somewhat surprising that withdrawal rates do not *decrease*, given the introduction of trained specialized staff and survivor-centric amenities. This is an open question for further research, and one we intend to pursue.

concentration of victim empowerment programs, or VEPs. We aggregate the number of VEPs in a police precinct's catchment area, to test whether the impact of SOCs on police reports is moderated by the number of VEPs in its area.

Figure 23 in the Appendix shows that the reduction in total sexual offenses is concentrated in precincts with a higher than average number of VEPs, denoted by "High NGO". We further control for urbanicity, as VEPs are likely to be more numerous in urban areas, and urbanicity may correlate with various other factors such as employment and education levels, which may moderate the effect of SOCs. Indeed, if we look at heterogeneity based on urbanicity, we see that the reduction in perpetration stems entirely from urban areas. This isn't purely due to caseload at baseline, however, as there appears to be no significant difference between the effects of pure versus hybrid courts (see appendix figure 22, panels A and B).

Figure 10 presents the results of the three-way interaction of treatment, VEP density and urbanicity specified in equation 8. We see that VEPs continue to remain significant, with the effects being concentrated in urban areas with a higher than average density of VEPs.

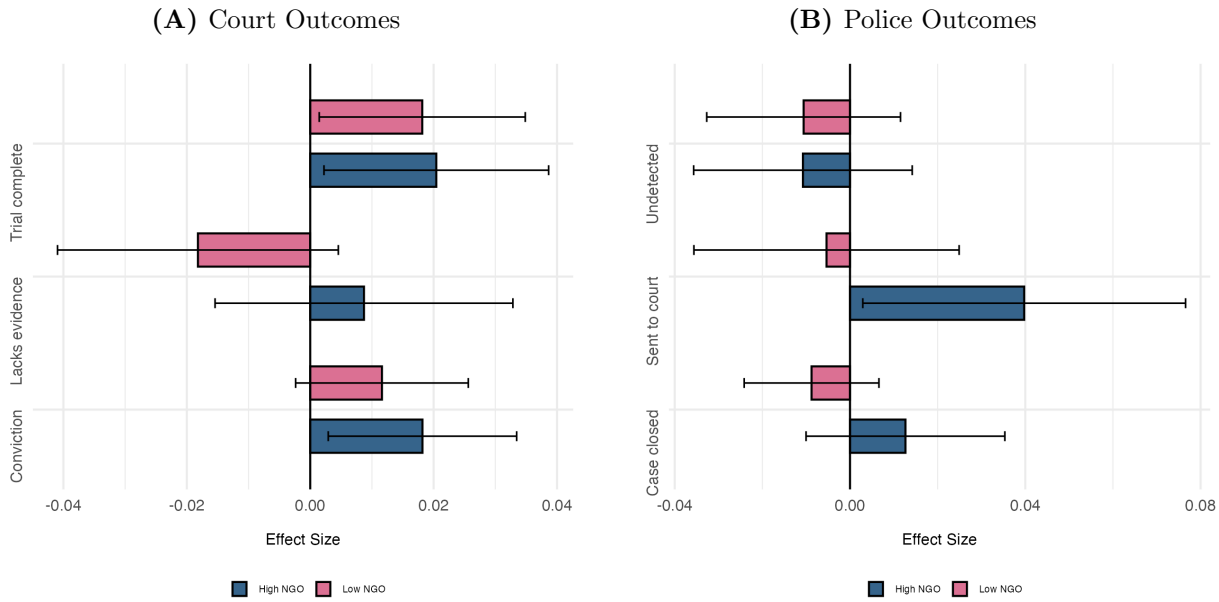
Figure 10: Heterogeneity in treatment effects



Notes: The coefficients above represent estimates from the interacted two-way fixed effects model specified in equation 8. The outcome is total sexual offenses reported to each police station. The specification consists of magisterial district and district-year fixed effects, and standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals. Figure 23 in the appendix shows these estimates without splitting by urbanicity.

Interestingly, enforcement does not appear to be correlated with VEP density. Figure 11 shows that the effects of SOCs on enforcement are fairly uniform across places with high and low NGO density. VEPs conduct a lot of outreach and advocacy work, in addition to their services for survivors. While we do not have direct quantitative evidence of increased VEP activity in the aftermath of SOC openings, our conversations with VEP providers suggest that this is a likely mechanism.

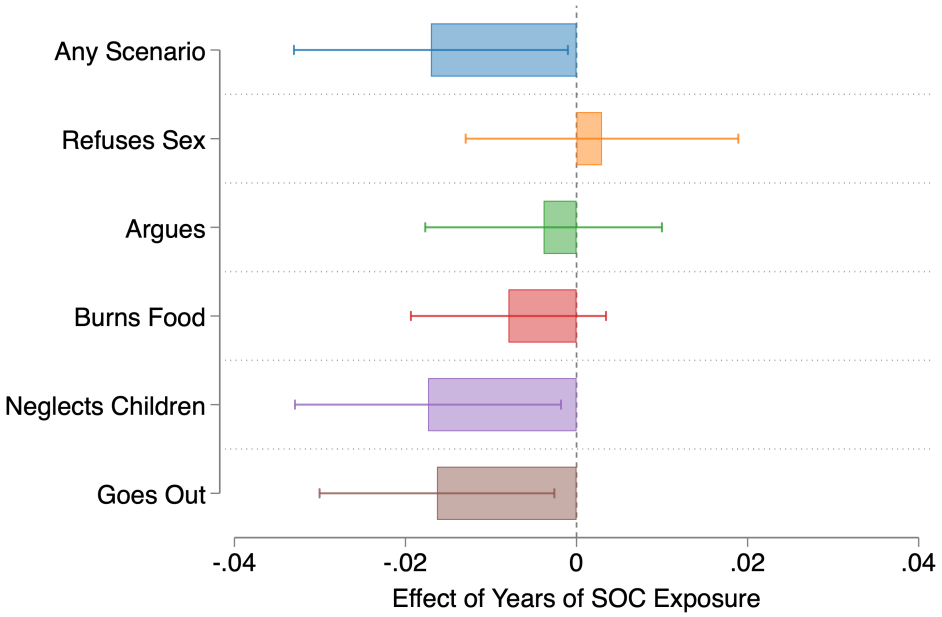
Figure 11: Heterogeneity in SOC impacts on criminal justice



Notes: The coefficients above represent estimates from the interacted two-way fixed effects model specified in equation 8. The outcomes are binary indicators for various police and judicial actions. The specifications consists of magisterial district and district-year fixed effects. Standard errors are clustered at the magisterial district level, and error bars represent 95% confidence intervals

Taken together, these results show that enforcement alone may not be sufficient to reduce perpetration; a broader change in the social understanding of harm to survivors may need to accompany increases in enforcement. To further corroborate this, we examine the relationship between exposure to SOCs and attitudes toward intimate partner violence. Figure 12 estimates the correlation between years of SOC exposure and acceptance of wife-beating for various reasons, using data from the Governance, Public Safety and Justice Survey of 2020. We see that a more prolonged exposure to SOCs is associated with lower acceptance of wife-beating.

Figure 12: Relationship between SOC exposure and IPV attitudes



Notes: This figure reports estimates of the relationship between years of SOC exposure and respondents' acceptance of wife-beating as detailed in equation 6. Outcomes are standardized. This data is drawn from the Governance, Public Safety and Justice Survey of 2020. The specifications consists of district fixed effects and controls for the respondents socioeconomic and demographic characteristics. Standard errors are clustered at the magisterial district level, and error bars represent 95% confidence intervals.

We also rule out the possibility that these results are driven by more places with more progressive attitudes receiving an SOC sooner. We use data from the Demographic and Health Survey of 2016 to regress the justification of wife-beating for any reason on the years until the opening of an SOC. These surveys are conducted for men and women separately, with differing weights for each. Results for both sexes, shown in table 3, provides evidence against this selection concern. Indeed, we see a negative relationship between such justification and years until opening for women, which would imply the opposite: places that are more progressive receive an SOC later. This makes intuitive sense: SOCs are placed in areas with high levels of sexual violence, which likely have worse gender norms.

Table 3: Correlation between IPV attitudes and time until future SOC

	(1) Men	(2) Women
Wife-beating justified	0.0411	-0.110
	(0.0542)	(0.0697)
Dist FE	Yes	Yes
Indiv. Controls	Yes	Yes
Observations	809	1672
Mean Dep. Var.	2.471	2.467
Adj. R^2	0.780	0.825

Notes: The dependent variable is acceptability of any one of six reasons for beating one's wife. This data is drawn from the Demographic and Health Survey of 2016, which has separate modules and survey weights for men and women. Standard errors are clustered at the magisterial district level.

5.2.2 Media Effects

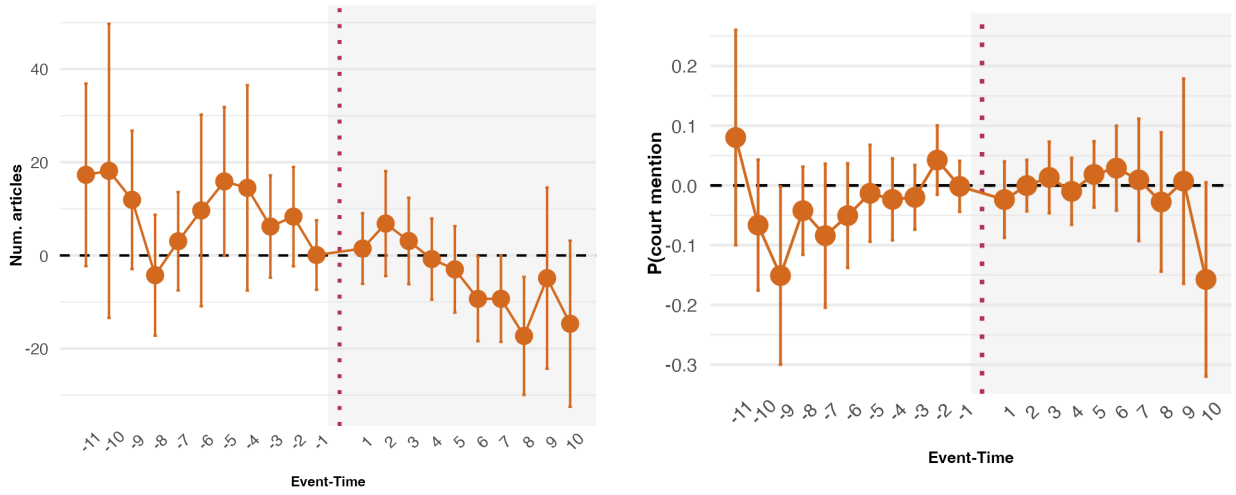
An important source of information as well as advocacy is the media, which may influence our results. On the one hand, media coverage of sexual violence may have prompted the opening of SOCs. If this is the case, we risk misattributing our effects to SOCs, as changes in news coverage may influence perpetration rates even in the absence of SOCs. On the other hand, the opening of SOCs may draw media attention toward gender-based violence, making it a mechanism through which the courts operate.

We use coverage in newspaper articles as a neasure for media coverage of sexual violence. We scrape news articles from South African outlets from 2009 to 2023 using the LexisNexis API and obtain a panel of geolocated cases, as outlined in section 3. Panel A in figure 13 shows the number of news articles aggregated to the magisterial district level. There appears to be a slight increase in the volume of news coverage 5 to 6 years prior to the opening of SOCs. However, in the years immediately preceding the opening, we see no evidence of increased coverage. If media advocacy were driving our results, and SOCs were irrelevant, we would expect to see a spike in news coverage right before the opening of SOCs.

In panel B, we examine the relationship between court or judiciary-related news articles and SOCs. The dependent variable is a binary indicator for judiciary-related news, hence the effect sizes reflect probabilities. We see no evidence to suggest that judiciary-related news articles composed a larger proportion of the news on sexual violence in the years leading up to SOC openings. We do the same with aggregate numbers of court-related articles and observe results very similar to panel A, so omit it for brevity.

Figure 13: The Impact of SOCs on media reporting of rape

(A) Num. rape articles **(B)** Proportion of judiciary-related rape articles



Notes: This figure reports event study estimates of the number of rape-related news articles via equation 1 in panel A, and the probability of a rape-related news article mentioning the courts or justice system in panel B, estimated via equation 3. The specifications consists of magisterial district and district-year fixed effects. Standard errors are clustered at the magisterial district level, and error bars represent 95% confidence intervals.

Simultaneously, we see no evidence that media coverage was impacted by SOCs. There is, if anything, less media coverage of rape in the post-SOC period, which likely reflects the decrease in reported rapes. This is particularly evident when we measure static pre-post effects, which can be found in table 6 in appendix D.

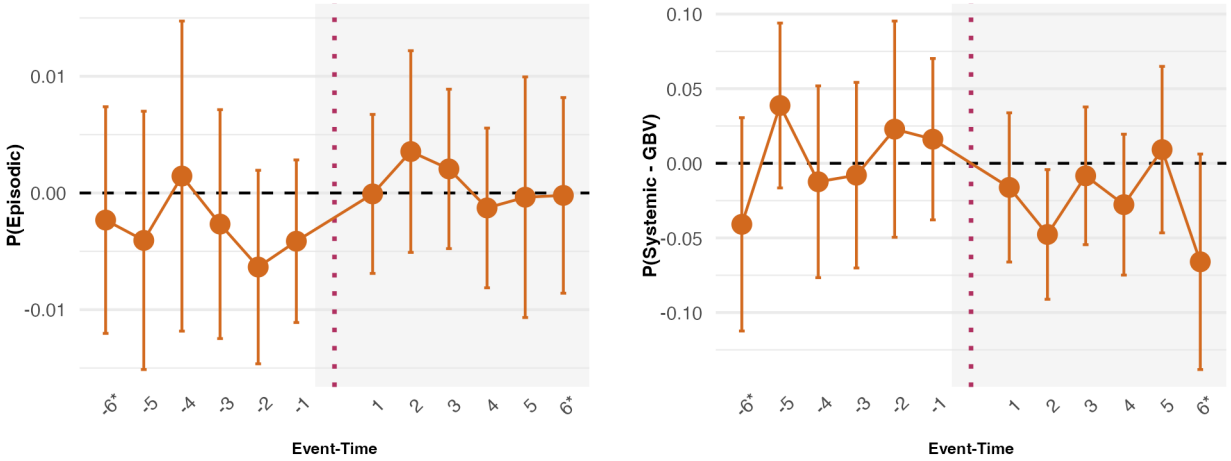
However, the volume of news coverage may not provide a complete picture – it is possible that the *quality* of news coverage correlates with the effects we observe. We use LLM-coded measures of narrative structure to discern whether such changes explain our effects. Figure 14 presents these results. We classify article framing into episodic, systemic-crime, systemic-GBV (gender-based violence) and systemic - crime & GBV, as discussed in section 3. Systemic or thematic framing reflects attention to social and institutional causes being attributed to the problem, and is typical of advocacy and social movements. Episodic framing, on the other hand, refers to articles being discussed as one-off cases, without contextualizing them as part of a broader pattern of systemic issues.

We see no changes in the probability of an article being framed episodically (panel A), or systemically in the context of gender-based violence (panels B and D). We see some signs that rape is more likely to be framed as a symptom of high crime rates, but there are significant pre-trends for this, and this likely reflects the higher baseline crime rates that magisterial districts with SOCs have. Further, these effects are not significant when we estimate static pre-post effects. Table 7 in appendix D shows estimates for static effects.

Figure 14: The Impact of SOCs on framing of rape-related news

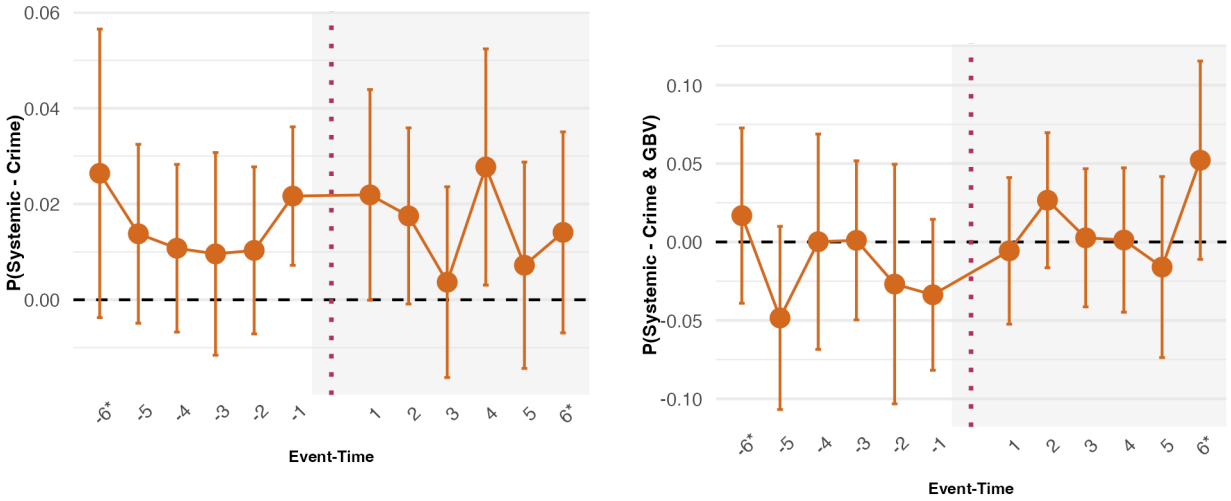
(A) Framed as an episodic incident

(B) Framed as a systemic problem of GBV



(C) Framed as a systemic problem of high crime rates

(D) Framed as a systemic problem of GBV + high crime rates



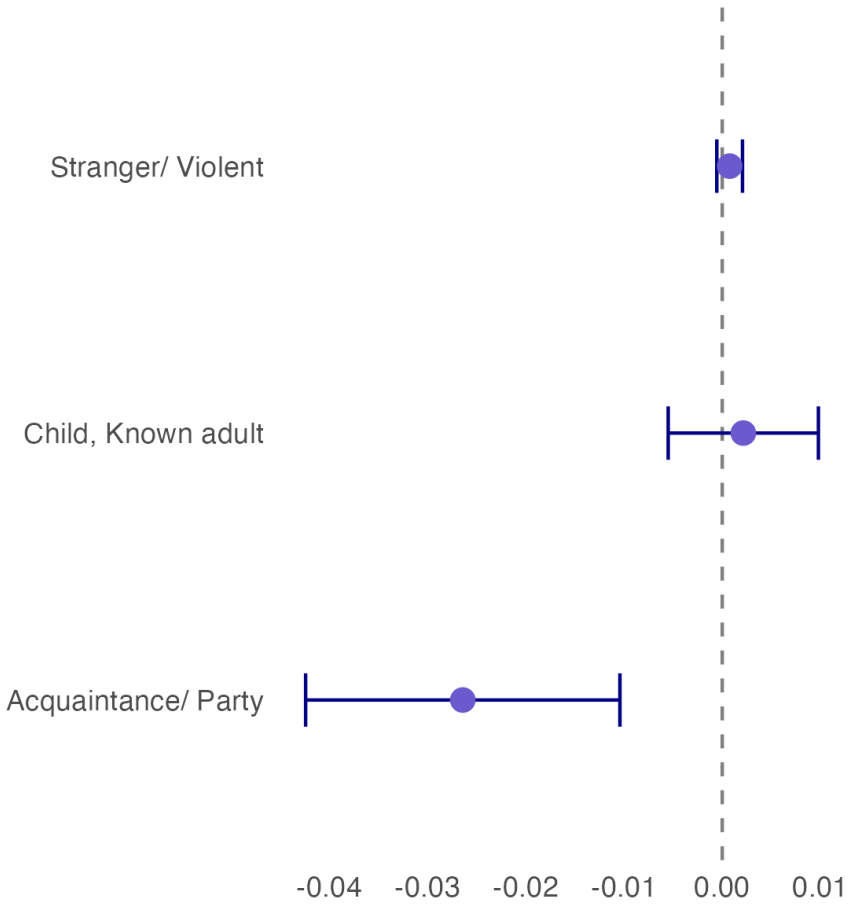
Notes: This figure reports event study estimates of the probability of different narrative structures in rape-related news articles, estimated via equation 3. The specifications consists of magisterial district and district-year fixed effects. Standard errors are clustered at the magisterial district level, and error bars represent 95% confidence intervals.

In sum, we find no evidence to suggest that news coverage explains our results, either directly, or as a result of SOC openings, leaving advocacy by VEPs the most plausible mechanism that could explain our results. We next turn to exploring what types of rapes may be shifting as a result of SOCs, and how this ties in with our proposed mechanism.

5.3 What types of perpetration reduce?

It is important to understand which types of sexual violence reduce, and why. We posit that there may be an inverse-u shape between severity of the crime and increased salience of victim harm. Those who commit relatively less severe crimes like sexual harassment are unlikely to alter their behavior, as they may not perceive their actions as harmful. On the other hand, those who commit more severe assaults, such as abusing children, or assaulting a stranger, may engage in too high a level of rationalization for the increased salience of harm to lead to cognitive dissonance. This may be understood in light of models of identity and cognitive dissonance (Akerlof and Kranton 2000).

Figure 15: Proxies for case types, based on LCA



Notes: This figure reports event study estimates of the probability of different types of rapes from our criminal justice panel, using proxies based on latent class analysis of TCC data. The specifications consists of magisterial district and district-year fixed effects. Standard errors are clustered at the magisterial district level, and error bars represent 90% and 95% confidence intervals.

To characterize a typology of perpetration, we conduct latent class analysis on detailed data from a Thuthuzela Care Center (TCC), a specialized one-stop clinic for survivors of sexual violence. This is a data-driven procedure to group individuals based on latent classes that may be underpinning

the data. This TCC has covariates that are not available in our criminal justice panel, providing us with greater insight into different patterns of violence.

Based on the procedure outlined in section 4.2, we obtain 3 latent classes, suggestive of the following categories:

1. Assault by a perpetrator unknown to the victim, prototypically late at night and with a weapon, where the victim is a young woman aged 18-25;

2. Assault against a child by a family member or known adult, typically in the afternoons, perhaps coinciding with after-school hours; and

3. Assault by acquaintances, typically late at night at a party and in the home of the perpetrator or their friend, with the victim being a young woman aged 18-25.

We identify these categories based on the variables available in our criminal justice data to proxy for them, and examine how they change in response to SOCs. Results from this analysis are shown in figure 15. We see that what are likely violent assaults by strangers and assaults against children remain unchanged, while acquaintance rapes decrease. This is in line with the idea that salience of harm to victims is instrumental in driving these changes, rather than solely enforcement, as posited.

6 Conclusion

We show that the perpetration of sexual violence is malleable, using spatial and temporal variation in the launch of SOCs as an exogenous shock to perceived enforcement and the way harm to victims is socially understood. In particular, we show suggestive evidence that classic "deterrence" through higher probabilities of enforcement may be insufficient in shifting perpetration, as the effects are concentrated in areas with a high density of VEPs, and we see a broader shift in gender norms in terms of the acceptability of wife-beating. At the same time, we rule out the possibility that our effects are driven by the media – a plausible alternative mechanism – rather than by SOCs.

We provide further evidence that social attitudes are the key mechanism, by developing a typology of sex offense perpetration. We obtain three latent classes using detailed data from a specialized clinic, and use the most prototypical characteristics of these classes to generate our classification. We find that, in line with social attitudes being a key mechanism, acquaintance rapes are more likely to reduce in the aftermath of SOCs, while violent assaults against strangers and assaults against children by known adults do not appear to be altered.

Taken together, our results have several concrete implications for policy as well as future research. On the research front, it is crucial that we collect more data on perpetration, especially using representative samples of the general population. These surveys should collect information on the characteristics of victims and perpetrators, time and context of the assault, the nature of threats or coercion used, and motivations for the assault. Perceptions of enforcement, social sanctions, and harm to survivors would be additionally valuable.

On the victim side, future research must aim to understand barriers to reporting, and the experiences of survivors with survivor-centric institutions. Much valuable qualitative work has been done on this (Herman 2023; Khan and Smythe 2022), but it is crucial to also have large-scale causal estimates of the factors that influence survivor engagement with the criminal justice system. We lack the data to appropriately evaluate this question using the variation from SOCs: while we can say that withdrawal rates haven't changed, we are unable to comment on why this is the case. We also do not have the information on how those who did not withdraw found their experience, and SOCs may still have achieved its goals in terms of creating a less retraumatizing experience for those who chose to continue engaging with the criminal justice system.

For policy, our findings suggest that victim-centric institutions have the potential to reduce perpetration not only through enforcement, but by changing social attitudes. These institutions, particularly when supported by a strong network of grassroots civil society organizations, can be a powerful signal that the State and society takes harm to victims seriously. Additionally, a lot of pressure is often placed on survivors to take action against their offenders (Brooks-Hay 2020; Goodmark 2019). Our results suggest that even in the absence of changes in survivor behavior, institutional signals can in and of itself be a powerful tool to reduce offending. Finally, perpetration is not a monolith, and different types of offenders may need different interventions. Those who sexually abuse children, or commit more violent assaults, may need additional targeted interventions.

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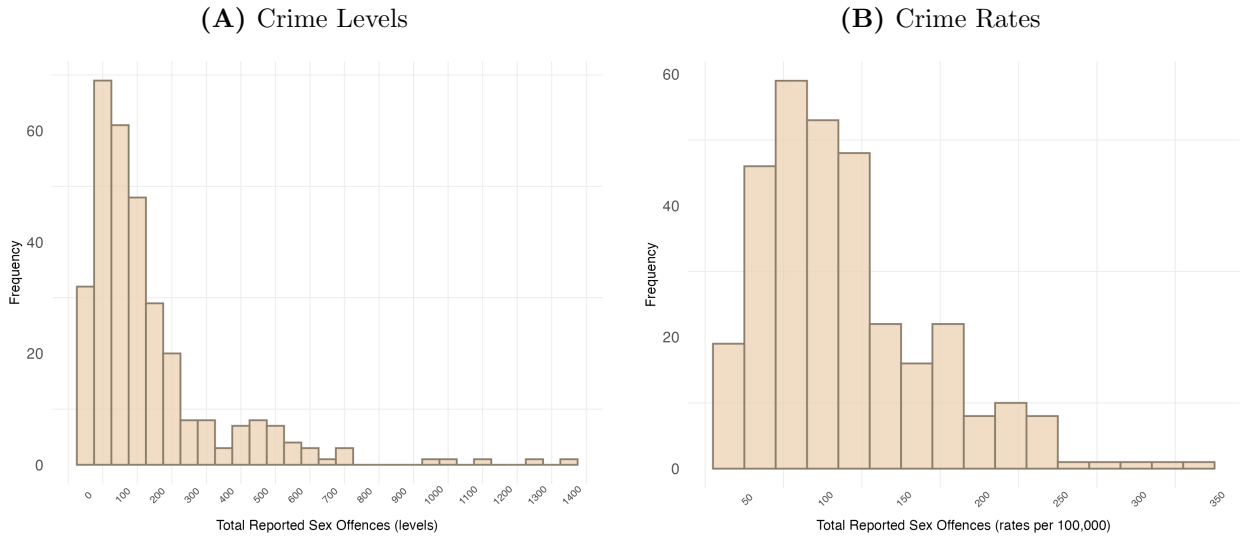
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Appendix

A Using levels for our event studies

We cannot have parallel trends in both logs and levels (Roth and Sant'Anna 2023), so we examine the data to determine which is the correct choice. Figure 16 shows the histogram of levels and rates for total sexual offenses, our main outcome of interest. We can see that the histogram for levels in panel A is very right-skewed, while the histogram of rates, defined as the number of total sexual offenses per $100,000$ people, is relatively more normally distributed. This suggests that a lot of the smaller values in levels are in magisterial districts with smaller population rates.

Figure 16: Distribution of Total Sex Offenses

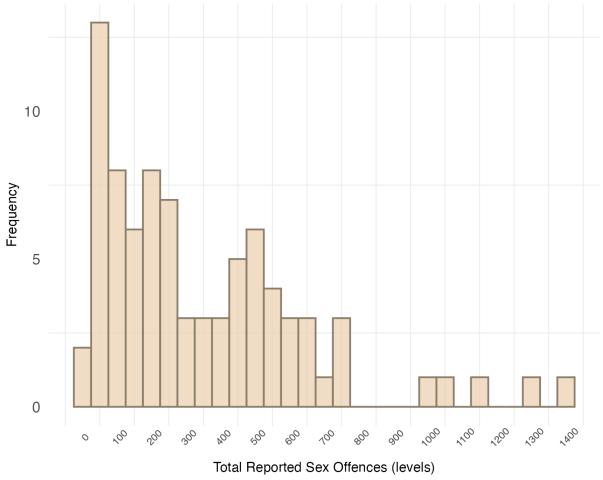


Notes: These figures represent histograms of crime levels and logs at the magisterial district level. Crime rate is defined as the rate per $100,000$.

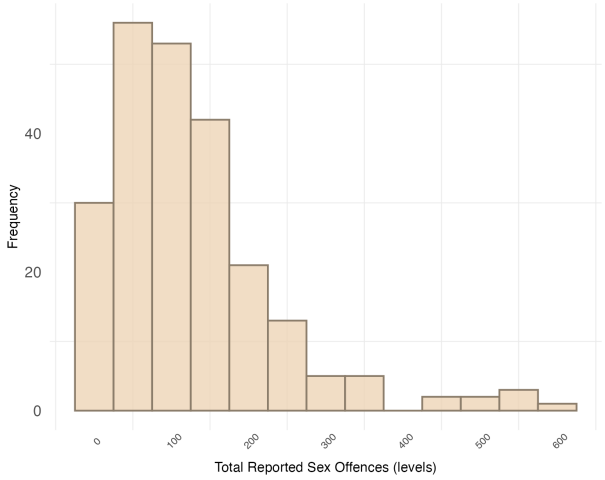
We see in figure 17 that never-treated magisterial districts, in particular, are likely to have very small levels of crime. This suggests that using logs as a metric would likely be very sensitive, as small changes in levels could cause disproportionate changes in rates. Figure 18 makes this particularly stark; most magisterial districts have close to 0 cases of attempted rape. This is also true of sexual assault for several cases.

Figure 17: Total sex offenses, by treatment status

(A) Treated Magisterial Districts



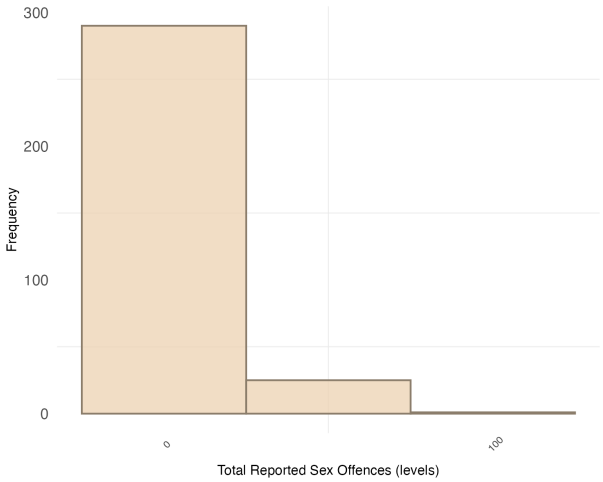
(B) Never-Treated Magisterial Districts



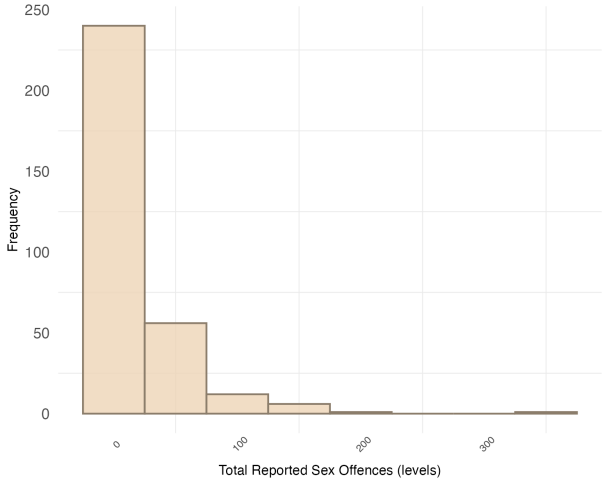
Notes: These figures represent histograms of crime levels at the magisterial district level, by treatment status.

Figure 18: Distribution of Attempted Rape & Sexual Assault

(A) Attempted Rape (Levels)



(B) Sexual Assault (Levels)

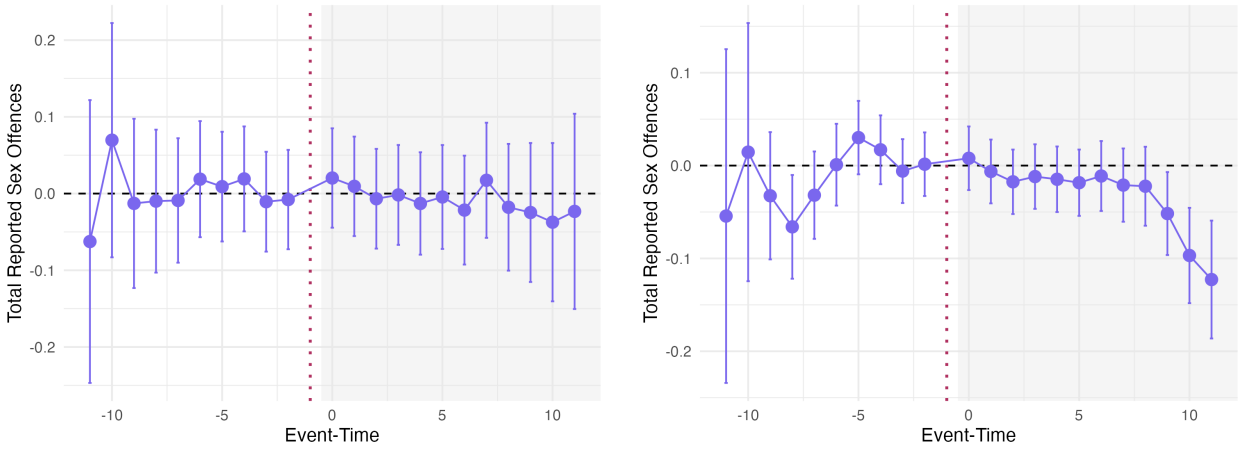


Notes: These figures represent histograms of crime levels of attempted rape and sexual assault at the magisterial district level.

Given that we decompose total sexual offenses into rape, attempted rape, and sexual assault for some of our specifications, it would make most sense to use levels. Panel A of figure 19 shows that SOCs have no effect on log total sexual offenses. However, when we weight the regression by the population of each magisterial district, we start to recover similar results as our specification in levels shown in figure 6.

Figure 19: Impact of SOCs on log total sex offenses

(A) Unweighted **(B)** Weighted by population



Notes: This figure reports event-study estimates from equation 2. The outcome is the natural logarithm of total sexual offenses reported to the police at the magisterial district level. This specification includes magisterial district and district-year fixed effects. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

This suggests that the effects we observe with levels are being driven by larger magisterial districts, which is consistent with our above analysis. Indeed, table 4 shows that when we look at a pre-post difference in logs for the treated magisterial districts, we see a large significant decrease. Thus, the null effects when performing a difference-in-differences with logs is because the control units, which are more sensitive when defined as rates, see a similar percentage decrease. Taken together, we believe levels is the correct transformation to use in this case.

Table 4: Pre-post SOC differences in log total sex offenses for treated units

	Log total sexual offenses
Post SOC opening	−0.136***
	(0.021)
Magisterial District FE	X
Observations	1243
Adj. R2	0.969

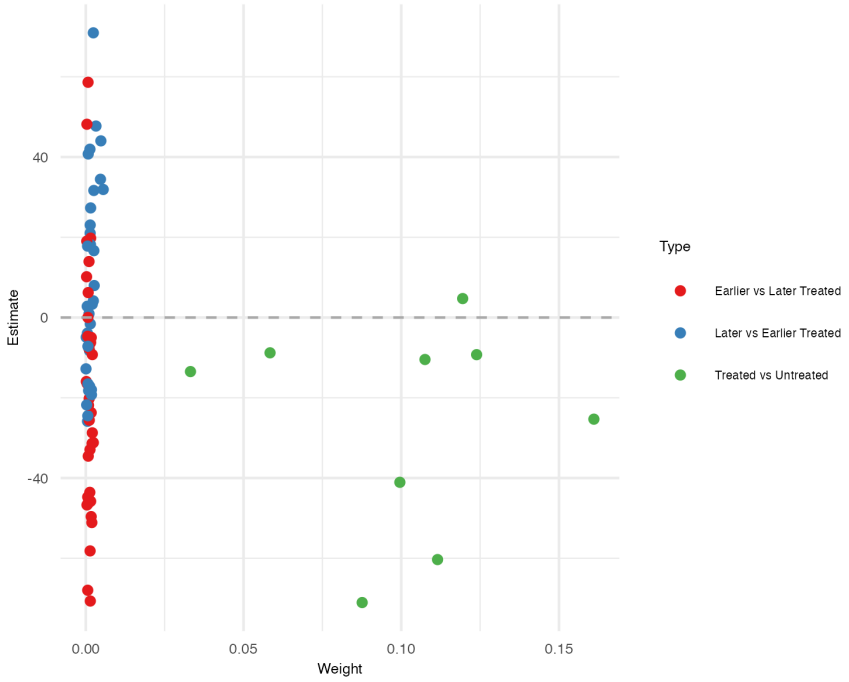
* p <0.1, ** p <0.05, *** p <0.01

Notes: (1) This table presents a regression of log crimes on a post-treatment indicator, for the treated group only. (2) Standard Errors, in parentheses, are clustered at the Magisterial District level.

B Addressing concerns around the use of two-way fixed effects

Recent literature in econometrics has raised concerns regarding the use of two-way fixed effects (TWFE) when there may be heterogeneous treatment effects (Butts and Gardner 2022; Caetano and Callaway 2026; Goodman-Bacon 2021; Sun and Abraham 2021). The key concern is that when heterogeneous treatment effects are present, the TWFE estimator is composed of an average of all possible 2×2 difference-in-difference estimates. Most problematically, this includes comparisons between later-treated units with earlier-treated units, which may result in say, a negative average treatment effect, even if the true result of the intervention is positive. To examine whether our TWFE estimator consists of such "forbidden" comparisons, we decompose our estimate into the full set of 2×2 comparisons in figure 20.

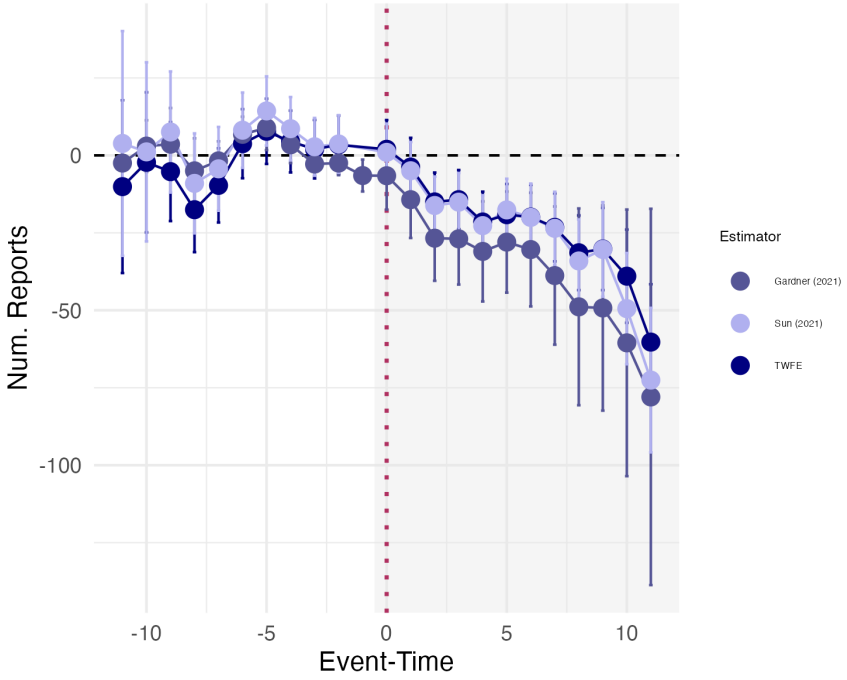
Figure 20: TWFE weights for different comparisons



Notes: The figure represents each of the 2×2 comparisons that comprise the two-way fixed effects estimate described in equation 1, as described in Goodman-Bacon (2021). The outcome variable is total sexual offenses reported to the police, aggregated to the magisterial district level. The specification includes magisterial district and year fixed effects.

From the above figure, we see that the forbidden comparisons contribute a negligible amount to our estimate. All the same, we test for robustness to the specifications outlined in Butts and Gardner (2022) and Sun and Abraham (2021), which use both never-treated and not-yet-treated units as comparison groups, while avoiding forbidden comparisons. Figure 21 plots these estimates against our TWFE estimates, and we see that the results look largely similar.

Figure 21: Robustness to alternative estimators

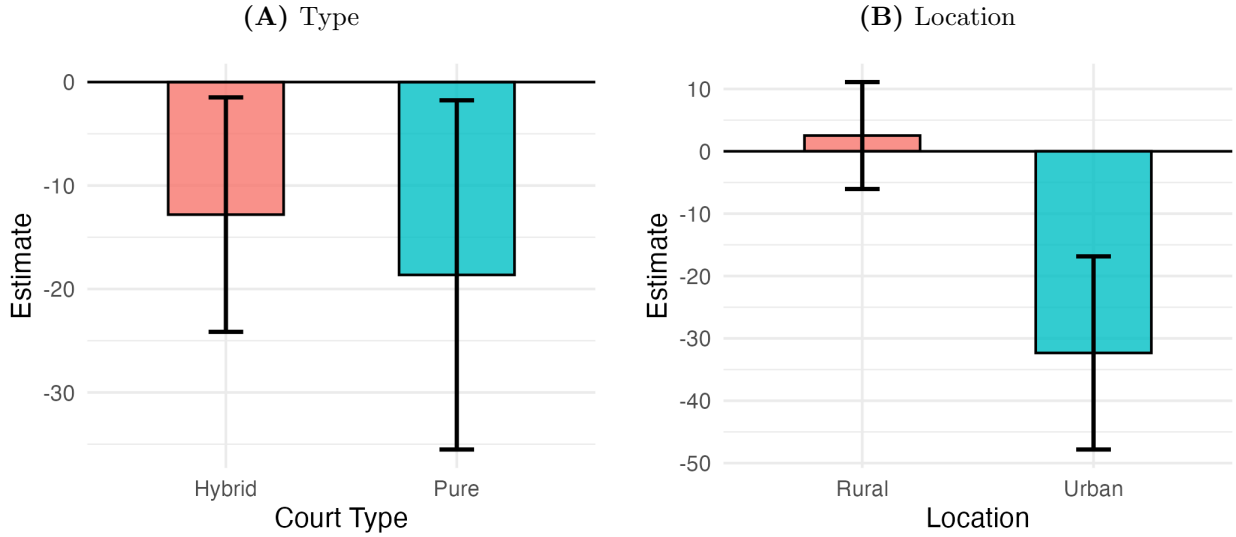


Notes: The coefficients above represent estimates from two-way fixed effects, Butts and Gardner (2022) and Sun and Abraham (2021). The outcome is total sexual offenses reported to each police station. The specifications include magisterial district and year fixed effects. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

We stick with TWFE as our main specification throughout, as the alternative estimators are fairly demanding in terms of power, and we only have 316 magisterial districts to work with for most of our specifications.

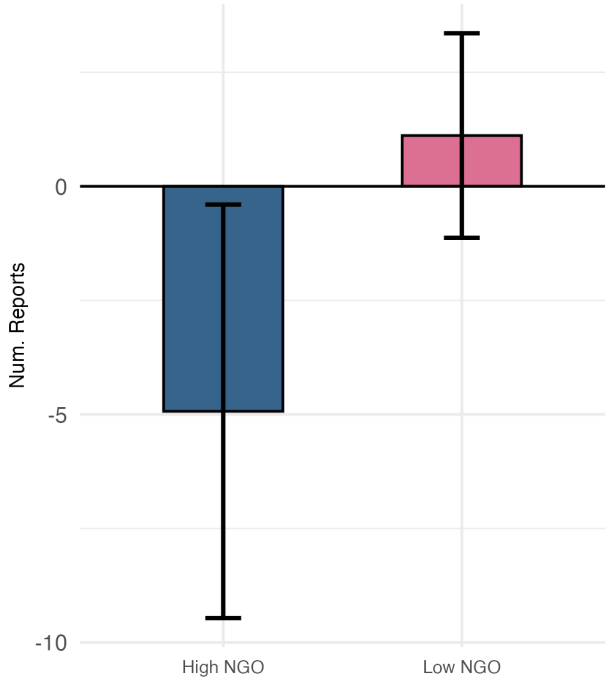
C Additional Figures

Figure 22: Heterogeneity in effects of SOC, by court type and location



Notes: The coefficients above represent estimates from the interacted two-way fixed effects model specified in equation 8, using the type of court (panel A) and the location of the court (panel B) as sources of heterogeneity. The outcome is total sexual offenses reported to each police station. The specification consists of magisterial district and district-year fixed effects, and standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

Figure 23: Heterogeneity in treatment effects, by NGO density

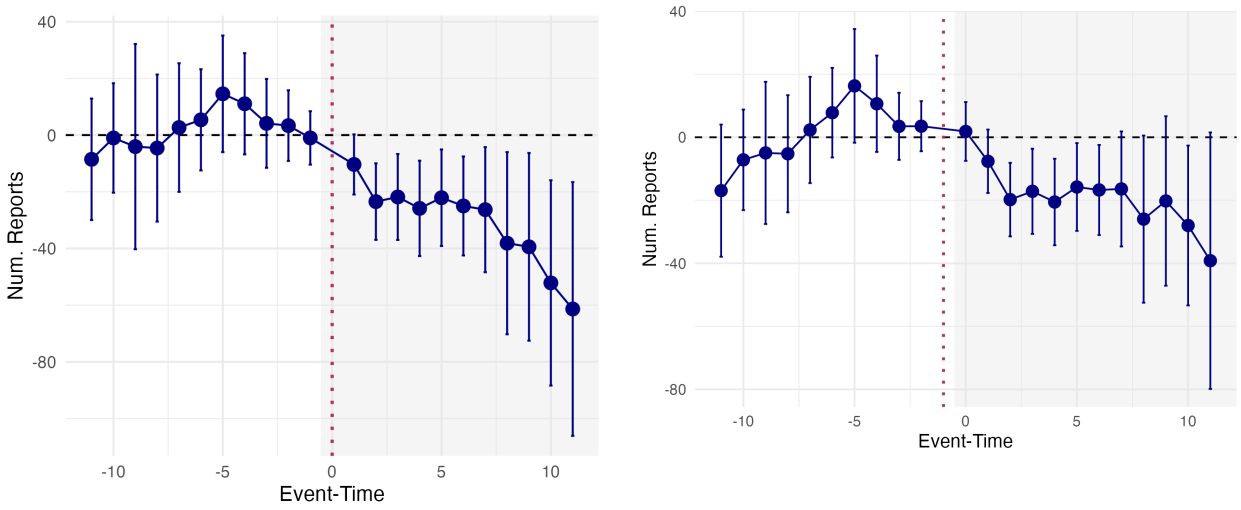


Notes: The coefficients above represent estimates from the interacted two-way fixed effects model specified in equation 8. The outcome is total sexual offenses reported to each police station. The specification consists of magisterial district and district-year fixed effects, and standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

Figure 24: Robustness to additional controls and binning

(A) Without District-Year FEs

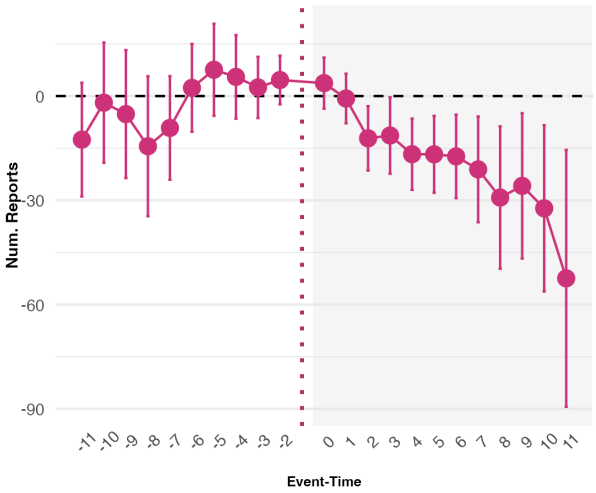
(B) With linear time trends per district



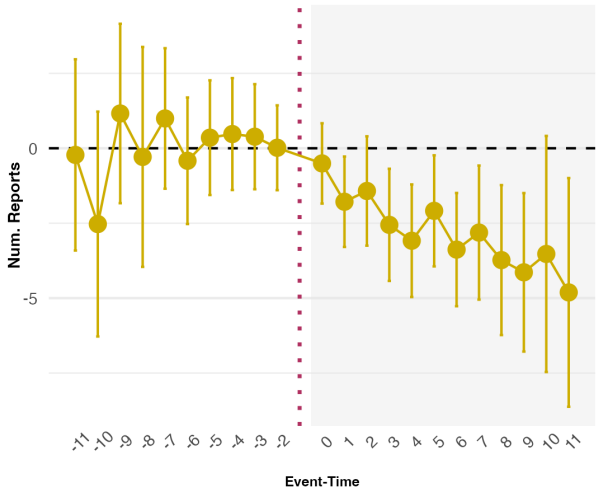
Notes: This figure reports variations on event-study estimates from equation 2. The outcome is the total sexual offenses reported to the police, aggregated to the magisterial district level. Panel A presents a less constrained version, with year fixed effects rather than district-year fixed effects. Panel B instead controls for linear time trends by district. Both specifications have magisterial district fixed effects. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals.

Figure 25: Effects on SOCs on the sub-components of total sex offenses

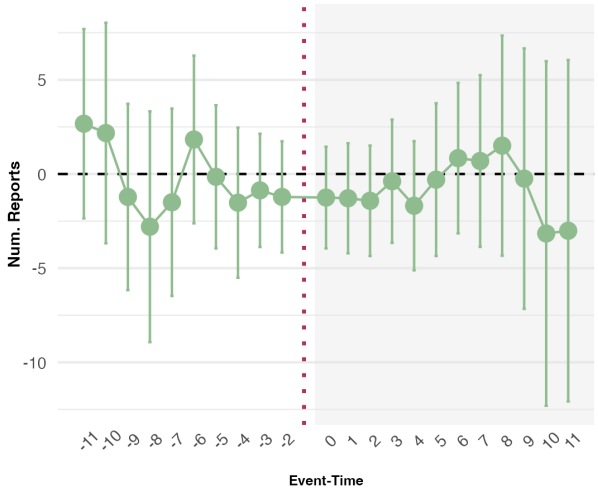
(A) Rape



(B) Attempted Rape



(C) Sexual Assault



Notes: The figures decompose 'Total Sexual Offenses' into its constituent parts, i.e. Rape, Attempted Rape and Sexual Assault. The dependent variable is the relevant crime type aggregated to the magisterial district level. The specifications in all three panels have magisterial district fixed effects as well as district-year fixed effects. Standard errors are clustered at the magisterial district level. Error bars represent 95% confidence intervals. As can be seen above reductions in total sexual offenses observed in figure 6 comes from Rape and Attempted Rape, while reports of Sexual Assault remain stable.

D Tables

Table 5: Effect of SOC on Reported Crimes

	Total Sex Offenses	Rape	Attempted Rape	Sexual Assault
Treat × Post	-14.809***	-12.377***	-2.273***	-0.159
	(4.812)	(4.094)	(0.699)	(1.346)
Observations	4,740	4,740	4,740	4,740
Adj. R^2	0.976	0.972	0.824	0.948
Dep. Var. Mean	167.374	136.961	8.331	22.082
MD FE	Yes	Yes	Yes	Yes
District × Year FE	Yes	Yes	Yes	Yes

Notes: The dependent variable is the number of police reports of the relevant crime type, aggregated at the magisterial district level. All specifications consist of magisterial district fixed effects and district-year fixed effects. Standard errors clustered at the magisterial district level in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Effect of SOC Rollout on News Coverage

	Num. Articles	Num. Court Articles	P(Court Article)
Treat × Post	-6.862**	-5.093*	-0.005
	(3.384)	(2.670)	(0.020)
Observations	2,856	2,856	44,726
Adj. R^2	0.703	0.666	0.064
Dep. Var. Mean	15.255	10.172	0.667
MD FE	Yes	Yes	Yes
District × Year FE	Yes	Yes	Yes

Notes: The dependent variables in the first two columns are the number of rape-related news articles, and the number of court-related news articles as a subset, respectively – aggregated at the magisterial district level. The dependent variable in the third column is a binary indicator for whether a rape-related news article references the court or judicial process.
All specifications consist of magisterial district fixed effects and district-year fixed effects. Standard errors clustered at the magisterial district level in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7: Effect of SOC Rollout on Episodic vs. Systemic Framing

	Episodic	Systemic: Crime	Systemic: GBV	Systemic: Both
Treat × Post	0.004*	-0.003	-0.026	0.024
	(0.003)	(0.006)	(0.021)	(0.020)
Observations	43,263	43,263	43,263	43,263
Adj. R^2	0.044	0.036	0.053	0.056
Dep. Var. Mean	0.012	0.033	0.641	0.313
MD FE	Yes	Yes	Yes	Yes
District × Year FE	Yes	Yes	Yes	Yes

Notes: The dependent variables are binary indicators for whether a rape-related news article is framed episodically, systemically within the context of high crime rates, systemically within the context of gender-based violence (GBV), or systemically within the context of both crime and GBV.
All specifications consist of magisterial district fixed effects and district-year fixed effects. Standard errors clustered at the magisterial district level in parentheses.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.