

# Peacekeepers against Criminal Violence—Unintended Effects of Peacekeeping Operations?

**Jessica Di Salvatore** University of Warwick

**Abstract:** Research shows that peacekeepers reduce conflict intensity; however, effects of deployment on nonpolitical violence are unknown. This article focuses on criminal violence and proposes a twofold mechanism to explain why peacekeeping missions, even when effectively reducing conflict, can inadvertently increase criminal violence. First, less conflict opens up economic opportunities (so-called peacekeeping economies) and provides operational security for organized crime, thus increasing violent competition among criminal groups. Second, demobilized combatants are vulnerable to turn to crime because of limited legal livelihood opportunities and their training in warfare. While UN troops may exacerbate these dynamics, UN police's peculiar role is likely to successfully contain criminal violence. Cross-national and subnational empirical analyses show that large UN military deployments result in higher homicide rates, whereas UN police, overall, moderate this collateral effect.

**Replication Materials:** The data and materials required to verify the computational reproducibility of the results, procedures and analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: <https://doi.org/10.7910/DVN/RXXQSQ>.

The United Nations (UN) has adapted its strategy of intervention to face specific challenges of civil wars, moving away from traditional missions toward multidimensional approaches and broader mandates. Mandates' objectives are primarily conflict related; thus, assessments of peacekeeping effectiveness have reasonably focused on its impact on political violence. But among several threats to peace, criminal actors have emerged as particularly threatening to short- and long-term stability. The sharp increase in homicides and organized crime in El Salvador, Haiti, Kosovo, Ivory Coast, and Mali forced the UN to adapt and change the scope of mandates to include crime-related tasks. Criminal networks act as peace spoilers by disrupting or delaying stabilization, infiltrating and undermining government's legitimacy, and threatening civilians' security. With the UN also acknowledging the risks of pervasive criminal violence for peacebuilding, a comprehensive assessment of peacekeeping effectiveness calls for more attention to broad security implications of peace missions.

Existing research agrees that peacekeeping works because it reduces the lethality, duration, and diffusion of

civil wars (Beardsley and Gleditsch 2015; Di Salvatore and Ruggeri 2017; Fortna 2008; Gilligan and Sergenti 2008; Hultman, Kathman, and Shannon 2013, 2014). This scholarship, however, focuses on violence perpetrated by armed political actors and largely neglects violence perpetrated by nonpolitically motivated actors—above all, criminal actors. Are UN peacekeepers as effective in deterring criminal violence as they are in deterring political violence?

This article contributes to two strands of literature on conflict and peace. First, it contributes to peacekeeping literature by focusing on a form of violence that is not considered in other studies and is all the same deleterious, namely, criminal violence. By focusing on homicides rather than other types of nonviolent crimes, the findings of the article directly speak to extant scholarship concluding that peacekeepers can provide security and stabilization. Showing that this is likely true for conflict but not for criminal violence adds important nuance to our understanding of effectiveness and intervention policies. Second, it proposes an additional channel that explains why conflict and postconflict countries exhibit high

---

Jessica Di Salvatore is Assistant Professor in Political Science and Peace Studies, University of Warwick, Social Science Building, Coventry, CV4 7AL, United Kingdom ([Jessica.di-salvatore@warwick.ac.uk](mailto:Jessica.di-salvatore@warwick.ac.uk)).

I am grateful to Ursula E. Daxecker, Kyle Beardsley, Inken von Borzyskowski, Vincenzo Bove, Brian Burgoon, Stefano Costalli, Han Dorussen, Michael Gilligan, Marlies Glasius, Kristian Skrede Gleditsch, Andrea Ruggeri, Megan Shannon, and Abbey Steele for their extremely helpful comments on previous versions of this article.

*American Journal of Political Science*, Vol. 00, No. 0, xxxx 2019, Pp. 1–19

©2019, Midwest Political Science Association

DOI: 10.1111/ajps.12451

levels of crime by investigating the role of international military interventions. I show that military peacekeepers inadvertently increase criminal violence through two proposed mechanisms working at the individual and group levels. First, UN troops improve security by reducing conflict intensity and, simultaneously, providing “operational security” that organized crime needs for business. In addition, local peacekeeping economies that emerge where UN staff is deployed create more opportunities for illegal activities. Criminal groups engage in violent competition to appropriate these new profit opportunities, thus producing higher levels of criminal violence. Second, peacekeeping economies promote predatory behaviors also among individuals, especially demobilized combatants. They lack marketable livelihood skills and have incentives to put their fighting skills at the service of criminal groups, which are not targeted by demobilization programs and peacekeeping mandates. Though the mechanisms support the hypothesis that peacekeeping exacerbates criminal violence, missions with substantial UN police (UNPOL) deployment provide vital support to public order and national law enforcement apparatus, thus countering criminal violence.

UNPOL’s involvement in capacity building, community patrolling, and law enforcement explains the negative association with criminal violence. The empirical evidence for these arguments is based on a country-year sample and a subnational analysis on the UN mission in South Sudan (UNMISS). At both levels of analysis, results indicate higher homicide rates following the deployment of large UN troop contingents, whereas UNPOL is associated with lower homicide rates. Interestingly, UNPOL moderates the crime-increasing effect of UN troops when deployed alongside them. The conclusions discuss the key policy implications of these findings.

## **Criminal Violence in Conflict and Postconflict Societies**

Scholarship on the relationship between criminal violence and stability consists of two main strands that do not necessarily stand in opposition to each other, namely, the political economy and the cultural account. The political economy of crime adopts a rational choice perspective, which posits that criminal acts are the result of cost–benefit trade-offs, where the gains from the action outweigh the risk of being punished (Becker 1968). Both institutional capacity and economic opportunities matter for these calculations since low state capacity, poverty, and inequalities make the ideal scenario for high crime inci-

dence. In conflict and postconflict contexts, we find both state weakness and economic opportunities for crime. Furthermore, major political shocks, including wars or revolution, create the power vacuum necessary for criminal groups to emerge and thrive (Skaperdas 2001).

Relatedly, the cultural argument hinges on the observation that society does not immediately shift to peace when political conflict declines. Civil wars normalize violence; hence, war-torn societies tend to internalize new norms and values that favor the social permissiveness of violence and crime (Archer and Gartner 1976; Steenkamp 2005). This cultural explanation of high crime rates in postconflict settings is compatible with the social disorganization theory argument, according to which variation in delinquency and crime rates is explained by the disruption of formal and informal community networks (Sampson and Groves 1989). Hence, conflict and postconflict societies are more likely to experience rapid growth in violent and nonviolent crimes because war alters the normative order and decreases social organization.

It follows that states weakened by civil wars provide ideal conditions for criminal activities. The decline of state authority and its inability to fulfill core functions open up space for criminal actors, ranging from street gangs to more organized, mafia-like groups. However, differently from insurgent groups that aim to overthrow the government, criminals prefer underprovision of governance over total anarchy (Hazen 2010; Kalyvas and Kocher 2009). Clunan and Trinkunas observe that the illicit economies are not ungoverned, but rather differently governed since “total chaos and complete removal of the governing authority pose critical threats to the survival of the illicit (and licit) economies” (2010, 179).

In addition, relatively safe environments reduce losses and encourage potential buyers. If a region is torn by war, trading becomes particularly risky, even more so if criminal actors (individuals or groups) do not have their own armed militia and have to rely on outsourced security. Whereas mafias can provide security to themselves and sell it to others (Gambetta 1995), most criminal groups that are less powerful and organized do not have resources to carry the burden of providing security while also conducting their business. Some criminal groups thus prefer the state or other actors to provide minimum levels of governance and security, which they can either free-ride or buy, as in the case of Somali pirates’ buying protection from clan leaders (Shortland and Varese 2014).

State weakness is a permissive condition not only for organized criminal groups but also for individuals. Civil wars turn societies into crime-*facilitative* and crime-*coercive* systems in which structural conditions (namely, incentives, opportunity, and immunity) make

crime rewarding (Needleman and Needleman 1979). In coping economies, crime represents the only available survival strategy for segments of the population. The unprecedented increase in opium production in post-2001 Afghanistan was not a consequence of greedy farmers' switching opportunistically from legal to illegal crops; rather, for the majority of poor households, it was a matter of survival (Bove and Gavrilova 2017; Goodhand 2005).

Conflict and postconflict societies are likely to experience high levels of criminal violence because in these societies, crime and violence are not only permitted (by society and, unwittingly, by weak institutions) but also induced by a war-ravaged economy. How do peacekeepers affect these dynamics when deployed? In most countries, criminal violence is high during and in the aftermath of a civil war, but can peacekeeping make a difference? I will argue that UNPOL can achieve deterrence, but the impact of military peacekeepers is less clear-cut. Instead of deterring crime, troops may even exacerbate criminal violence as an unintended consequence of insurgent-focused mandates and the economic stimulus triggered by their presence.

## **Do Peace Missions Boost Criminal Violence?**

In this section, I elaborate on how personnel types have distinct impacts on criminal violence. The crime-reducing effect of police is extensively supported in the economy of crime literature (Chalfin and McCrary 2017). The effect of UN troops, however, is not necessarily unidirectional and requires further discussion. On the one hand, UN troops may be able to deter any form of armed violence, regardless of its purpose. On the other hand, criminal violence may respond differently to peacekeeping because of specific dynamics that generate this form of violence. Below, I put forward group- and individual-level mechanisms through which peacekeeping could inadvertently promote rather than deter criminal violence. At both levels, improvements in security and stimuli to local economies have important implications for the incidence of crime-related violence.

### **Organized Crime and Peacekeeping**

The priority of a UN mission is to restore minimal levels of security by reducing violence and disarming combatants to lower the chances of relapse into armed conflict.

This objective is a priority for both traditional and multidimensional interventions because state-building, economic, and social reforms require stability in the first place. Peacekeeping missions with large military personnel reduce conflict intensity and casualties (Hultman, Kathman, and Shannon 2013, 2014). Sizable UN military presence is thus a credible deterrent for political actors and effectively reduces incentives to fight. Notably, however, peacekeepers' effectiveness in reducing political violence "provide[s] a minimum level of stability and predictability which can unintentionally facilitate illicit economic exchange" (Andreas 2009, 34). As already mentioned, organized criminals need "operational security to plan, prepare, and conduct their illicit activities" (Patrick 2011, 135–36). The decline of political violence creates more favorable environments for criminal entrepreneurs. As UN troops reduce violence monthly (Hultman, Kathman, and Shannon 2014), organized crime benefits from these improvements from the early stages of the mission. Several cases provide evidence of this pattern. In a survey conducted in Haiti, Kolbe finds that affiliation with gangs started increasing just after peacekeepers arrived in Port-au-Prince in 2004 and peaked in 2006; when MINUSTAH's presence increased just after the 2010 earthquake, gang affiliation rose again (Kolbe 2013).

The second mission-specific effect is economic. The arrival of UN personnel turns the local economy into a so-called "peacekeeping economy" (Jennings and Nikolić-Ristanović 2009). Peacekeeping stimulates the local economy in several ways, for example, increasing employment opportunities and wages (Bove and Gavrilova 2017). In some circumstances, peacekeeping economies foster illicit activities that are made possible by peacekeepers' presence. In particular, missions boost black markets in economies that are already criminalized and "absorb" external actors, whose direct involvement further fuels illicit exchanges (Andreas 2008). Besides black markets, peacekeepers' arrival also increases demand for sex workers, resulting in more transactional sex and human trafficking (Beber et al. 2017; Bell, Flynn, and Martinez Machain 2018), especially when deployment is sizable and violence decreases (Nordås and Rustad 2013). Even when peacekeepers do not actively participate in illicit activities, the impact of the deployment is economically profitable for organized crime.

Hence, the combination of the security and economic effects of peace operations hints that criminal groups will (a) be able to free-ride on the security provided by peacekeepers without having to fear state punishment and (b) become more exploitative as a direct result of peacekeeping economies. Since the state is unable to counter them and the mission focuses on political

actors, criminal groups are largely unaffected by the external intervention.

Intuitively, the larger missions are more likely to produce the security and economic effects described above. Increased opportunities for predatory behavior will produce more competition among criminal actors, which oftentimes involves violence (Kalyvas 2015; Moro, Petrella, and Sberna 2014). Contrary to this expectation, it is often argued that homicides drop significantly when organized crime is doing business; thus, low homicide rates are a function of solid territorial control (Cockayne and Lupel 2011). However, this idea that criminal groups do not use violence in their home territory is mostly derived from studies of Italian mafias; whether this is generalizable to Africa or other contexts is debatable. African criminal groups exhibit loose structures and temporary business-oriented formations that do not allow them to establish actual territorial control (Abadinsky 2007; Mazzitelli 2007).

### Individual Criminals and Peacekeeping

The security and economic effects of peacekeeping also have implications for individuals who are not embedded in organized crime. First, incentives for predatory behavior associated with peacekeeping economies exist not only for group members but also for individuals. Particularly vulnerable to this are ex-combatants. In order to reduce the risk of reescalation, UN missions often launch disarmament, demobilization, and reintegration (DDR) programs. Disarmament aims at reducing ongoing violence, but reintegration of combatants to civilian life plays an equally relevant role for the peace process.

DDR programs can produce undesirable consequences if former combatants are not successfully reintegrated because economic insecurity may drive them toward crime. Ex-combatants are more vulnerable, as they usually lack education and do not have strong marketable skills; thus, they have limited alternatives for earning money legally (Muggah 2008; Patel, De-Greiff, and Waldorf 2010). Their main skill is the use of violence and familiarity with weapons (Collier 1994; Schulhofer-Wohl and Sambanis 2010). After being disarmed, they find themselves in a context where these skills are neither rewarded nor replaced by new ones, thus increasing the risk of recidivism (Kaplan and Nussio 2018; Phayal, Khadka, and Thye 2015). According to the *World Development Report* (World Bank 2011), individuals joining rebellion do not differ much from those joining criminal gangs with regard to motivations.

However, in a context where the only credible sanctioning power is the UN mission, which primarily focuses on rebel groups, it is more reasonable to join criminal networks. Different from armed groups, gangs and criminal organizations are not subject to disarmament programs.

It could be argued that demobilization leads to crime waves in all postconflict settings, regardless of peacekeepers. Two things are worth noting, though. First, peacekeepers implement DDR programs both during and after conflict, which is why I do not exclusively focus on the postconflict phase. Second, the UN has the capacity to implement countrywide DDR programs, whereas government-led implementations are much less systematic. Furthermore, insurgents are less likely to join government-led DDR programs in the absence of external security guarantors such as the UN. Thus, on the one hand, peacekeepers assist disarmament and demobilization processes by deploying to different locations, collecting weapons while also acting as security guarantors. On the other hand, the reintegration phase is a very long-term process and relies mostly on nonmilitary, local actors. The UN can limitedly support the reintegration phase by assisting nongovernmental organizations and government projects with employment and vocational training, providing infrastructures, and supporting economic recovery; but successful reintegration is not as quick as disarming and is not simply about reinserting ex-combatants into communities. Thus, large missions smoothly disarm and demobilize combatants, but their contribution to reintegration is negligible, thus leaving many vulnerable to turning to crime and criminal networks in the short run. These dynamics are common to many DDR processes, as in Mozambique, South Africa, El Salvador, Nicaragua, and Cambodia (Knight and Özdem 2004). Veterans might be more prone to such behaviors because of their recent history of violence and the criminalization of demobilized wartime networks by former high- and mid-ranking commanders (Daly, Paler, and Samii 2016; Nussio 2018; Themnér 2015).

### The Role of UN Troops and Police

Overall, I expect large UN missions to increase criminal violence in host-states. More specifically, UN troops should be associated with more criminal violence because of their direct impact on security and the local economy. Conversely, UNPOL has the potential to decrease criminal violence. The main function of UNPOL involves two main tasks, namely, (a) prevention, detection, and investigation of crimes and maintenance of public order; and



(b) support for the restructuring and reform of host-state police through training, mentoring, advising, and joint patrolling. By performing these tasks, UNPOL can support violent crime reduction both directly through *deterrence* (e.g., patrolling and operations) and indirectly through offenders' *incapacitation* (e.g., arrests). The latter effect, in particular, hinges on the role of UNPOL as capacity builders and hence does not require deployments as extensive as military ones because few officers are needed to train hundreds of host-state counterparts.<sup>1</sup> But the more immediate impact of UNPOL through deterrence is the result of joint operations and high-visibility patrols carried out with national police and provision of material support. Numerous studies confirm that the crime-reducing effect of police is largely due to deterrence rather than incapacitation (Chalfin and McCrary 2017; Di Tella and Schargrodsky 2004).

Not surprisingly, the operational guidelines for UNPOL in DDR settings clearly highlight the role of patrolling as a crime deterrent (UN 2014), even if mandates do not allow arrest and detainment of criminals. Crime reduction literature shows that high-visibility police patrols signal the presence of a sanctioning force and thus effectively reduce crimes, including firearms crimes (McGarrell et al. 2001).

Although executive mandates have only been authorized in Kosovo and East Timor, UNPOL's contribution to the mission planning is pivotal, as it provides important expertise on organized crime and public order. UN military members, on the other hand, are less well equipped against criminal violence. First, troops tend to believe that policing activities are a distraction from their primary responsibilities (Perito 2004). Second, the military lacks flexibility and expertise in maintaining public order, which usually involves low-intensity violence.

It was UNPOL, not UN troops, that conducted a very successful offensive against gangs in Haiti and assisted the Haitian police in setting up 2,000 checkpoints to arrest more than 4,500 suspects;<sup>2</sup> in Liberia, UNPOL participated to Operation Sweeping Wave, whose aim was to defeat organized crime involved in drug dealing, such as the Isakaba Gang. Similar operations were conducted in Sierra Leone, with several successes including the arrest of 200 suspects and seizure of hundreds of kilograms of cannabis, heroin, and cocaine. In East Timor, UNPOL

contributed to successful arrest of several human traffickers by Timorese police. Also, in the Democratic Republic of the Congo (DRC) UNPOL joint checkpoints with Congolese police (Operation SOLIB) deterred criminals from accessing the axis Beni-Mavivi and reduced criminality, which in turn allowed people to return to their villages. To conclude, UN troops can provide security against military threats but are of (almost) no help in rebuilding domestic security.

Based on the above discussion, I formulate the following hypotheses:

- H1: UN troops have a positive effect on criminal violence.
- H2: UN police have a negative effect on criminal violence.

## Empirical Strategy

The empirical analysis is divided in two parts. First, I use country-year as the unit of analysis with national-level statistics on homicide rates in countries that experienced civil wars from 1995 to 2012. This allows me to include most of the countries that hosted a UN mission after the Cold War. The second stage moves to the subnational and monthly levels by focusing on the UN mission in South Sudan. Inclusion of other cases is limited by the lack of subnational crime statistics for countries hosting peace missions. To operationalize criminal violence, as discussed later, I use homicide rates per 100,000 population as the dependent variable and estimate a panel-corrected standard errors model (PCSE; Beck and Katz 1995) with correction for temporal autocorrelation within panels (AR1). For the cross-national analysis, I also include country fixed effects and region-year fixed effects to account for region-specific shocks in a given year.<sup>3</sup> This strategy addresses measurement errors due to the pooling of different homicide data sources, assuming that the error is "systematically related to the country, but does not change much over time" (Neumayer 2003, 628).

Empirical studies on peacekeeping need to tackle the problem that peacekeepers are not randomly deployed; usually, the most violent conflicts and locations host peacekeepers (Fortna 2003; Gilligan and Stedman 2003; Ruggeri, Dorussen, and Gizelis 2018). This is problematic when one wants to assess the effect of peacekeeping on political violence. However, crime and more specifically

<sup>1</sup>For example, the trainer-to-recruit ratio was 1:10 in Haiti (MINUSTAH) and 1:8 in Liberia (UNMIL).

<sup>2</sup>The UNPOL website publishes information on the counter-crime activities listed in this paragraph; for more information, see <https://police.un.org/en/un-police-magazine>.

<sup>3</sup>The regions are Africa, Asia, Europe, and Central America.

homicide rates are not among the main drivers of mission deployment. UN mandates are not designed to reduce crime. While I do not argue that the mission is completely exogenous to criminal violence, I believe that the selection bias is a less threatening issue for statistical inference. Statistical models confirm this intuition when coarsened exact matching (CEM; Iacus, King, and Porro 2011) is used to alleviate selection bias and model dependence.

### Dependent Variable: Homicide Rates

Violence is classified as criminal or political depending on perpetrators' intentions. I operationalize criminal violence with intentional homicide rates. Homicide rates are strongly associated with the presence of criminal groups. The *Handbook for European Homicide Research* also states that "homicide rates are generally accepted as both the most reliably measured crime and as an accurate indicator of a nation's overall level of criminal violence" (Liem and Pridemore 2012, 127).

Hence, the dependent variable of the analysis is homicide rates per 100,000 population. For the country-year analysis, I use homicide rates in countries that are either in conflict or within 5 years from conflict termination. I use the main data sources on homicides, namely, International Crime Statistics and the United Nations Office on Drugs and Crime (UNODC), which combine homicides from the World Health Organization and the Crime Trend Surveys. Intentional homicides, in particular, are defined as "death deliberately inflicted on a person by another person, including infanticide" (UN Statistical Division 2003, 91). These data provide the best indicator for homicide rates and have already been used in cross-national studies on crime (Neumayer 2003, 2005; Ouimet 2012; Rivera 2016). For South Sudan, I use crime statistics reports published by the South Sudan National Police. These reports, published with the support of the UN Development Program, cover all months and states from June 2011 to March 2013 (SSPS 2011–13). The supporting information (SI; Section A10, 19) presents a possible validation of these statistics through a comparison with crime victimization as reported in World Bank surveys in the years 2012–14.

### Independent Variables

The independent variables of interest are the size of UN troops and UNPOL units deployed. Information on the size of UN personnel at the country level is from the

International Peace Institute (IPI). For subnational deployment, I rely on UN Secretary General reports, which often include maps with peacekeepers' locations. These maps are combined with data from the IPI on contribution to peace missions to estimate the size of UN units in each location (see sample map and the output of the procedure in SI Section A3, 8; this strategy is also used in Ruggeri, Dorussen, and Gizelis 2018).

### Control Variables

For the cross-national analysis, I add a set of lagged control variables that are expected to be associated with homicide rates and peacekeeping. First, I include battle-related deaths from UCDP/PRIO Armed Conflict Dataset v.4 (Pettersson and Wallensteen 2015) to control for overall levels of conflict-related violence. The models also include dummies for cease-fires, DDR provisions in the peace agreement, and postconflict years retrieved from the uppsala conflict data program (UCDP) peace agreement data set (Harbom, Högbladh, and Wallensteen 2006; Högbladh 2011) and the conflict termination data set (Kreutz 2010). I also include the State Fragility Index from the Centre for Systemic Peace (Marshall and Cole 2014), which includes indicators for governance, socioeconomic development, and security. Population and gross domestic product (GDP) are also included from Gleditsch (2002), the most complete source for these two measures. In the SI, I show additional specifications with other control variables that unfortunately are not available for several countries in the sample (Section A9, 17).

The control variables for the subnational analysis cannot be identical to the above because those indicators are not available for each South Sudanese state by month. However, I keep the battery of variables as consistent as possible. First, population density is measured yearly at the state level according to the national statistics (National Bureau of Statistics [NBS] 2014). Urban share and poverty incidence are time-invariant and measure, respectively, the share of the population living in an urban area and the share of the population with below minimum welfare levels in 2009 (NBS 2011). I add state control as measured by the number of police stations in each state (SSPS reports). To account for conflict intensity, monthly killings reported in UCDP-GED are factored in (Sundberg and Melander 2013). Furthermore, I add a spatial lag for homicides to control for potential diffusion. Finally, I do not add DDR or postconflict since both always equal 1 in the period under analysis. All independent variables are temporally lagged to alleviate endogeneity. Descriptive

statistics for the cross-national and subnational variables are in SI Section A1 (3).

### Potential Threats to Inference

Before presenting the results, I discuss three threats to causal inference and how I propose to alleviate them. The first one concerns whether the homicide variable is also capturing political violence. The argument that homicides are a good proxy for criminal violence hinges on the assumption that reported homicides are not politically motivated. In principle, it should then be possible to distinguish political and criminal violence. In practice, however, it is difficult to empirically pin down criminal violence. It is no surprise that crime statistics are imperfect. In South Sudan, these were collected with the support of the UN Development Program (UNDP), which suggests reasonable data quality. As for the quality of the data for cross-country comparisons, I explained how country fixed effects reduce concerns over comparability. Additionally, I also follow Neumayer's strategy (2003) and show that averaging variables across 3 years to reduce the influence of exceptionally high/low values does not change the results (SI Section A8, 16).

Yet one could argue that homicides proxy political rather than criminal violence. First, this implies that homicide rates should correlate with conflict data; however, the scatterplot of political and criminal violence across countries shows low levels of correlation (SI Section A4, 9). Second, in line with the negative relationship found in the most recent literature on peacekeeping, I should not observe the expected positive effect of peacekeeping but instead a decrease in homicides. Hence, if the argument that homicides simply mirror conflict is true and still a positive effect is found, the latter is likely to be an underestimation of the true effect. More importantly, the effects of troops and police on homicides should have the same direction; however, I will show that these two types of personnel still have opposite impacts on homicides.

Slightly different is the case in which political violence is miscategorized as criminal violence. As argued by Autesserre (2010), peacebuilders in the DRC have interpreted local violence as instances of criminal and private violence rather than political violence. This suggests that international interveners can wrongly perceive the nature of violence and thus its characterization as criminal. In collecting homicide data in South Sudan, UNDP was not unaware of these challenges. UNDP adhered to the widely accepted definition of intentional homicides and adopted a set of criteria to exclude conflict deaths from

the counting, mostly examining whether there was a direct link between the death and the conflict. For example, a death involving noncombatants is classified as intentional homicide. This does not allow for distinguishing homicides from conflict deaths when at least one party is plausibly linked to a party in conflict, nor does it solve the misperception problem acknowledged by Autesserre; however, it suggests that the data collection was based on some criteria that, when used systematically, would alleviate miscounting.<sup>4</sup>

Second, the causal mechanisms cannot all be tested separately since we do not have data on each step of the chain. However, I provide more support for the plausibility of my theory with two empirical tests. First, I replicate the analysis using an international expert survey on organized crime as in Pinotti (2015) instead of homicides. Flourishing of organized crime during peacekeeping economies is one of the mechanisms I propose to link UN missions and higher homicide rates. I find confirmation that UN troops are associated with (the emergence of) organized crime, whereas police have a negative impact on it (SI Section A6, 11). This is also consistent subnationally, where I use counterfeiting to measure organized crime. In particular, counterfeiting is one of the most common activities of organized crime in South Sudan, so it is a plausible proxy for criminal groups. In SI Section A6, I also find that counterfeiting is associated with a large UN military presence. Second, and even more importantly, a falsification regression shows that total crime rates are not affected at all by peacekeepers (SI Section A7, 12). These regressions confute two crucial points. First, peacekeepers' presence does not result in a generalized rise/drop in reported crimes; and second, not all crimes, but specifically homicide and organized crime-related felonies, increase where UN troops are deployed and decline when UNPOL is present. These important results are further discussed in the SI.

Third, reporting bias could be a concern for the subnational analysis, in which data were collected with UN assistance. The test mentioned above reduces the credibility of such an issue since not all crimes are affected by peacekeepers' presence. Still, it could be argued that

<sup>4</sup>Grady (2016) flags some important issues concerning UN missions' efforts to collect data on sexual exploitation and abuses (SEA), but it is worth highlighting two key differences with UNDP support on data collection. First, the SEA reports have consequences for the missions' reputation, and legitimacy is at stake. SEA allegations undoubtedly cast a shadow on the mission's conduct, whereas conversely, bad crime statistics do not necessarily reflect negatively on the mission. Second, reporting on SEA does not involve any effort to build statistical capacity of local institutions, and the mission itself has no expertise on such matters. The UNDP, on the other hand, provides exactly that type of expertise.

homicides are more reported in locations where UNPOL supports the national police. Hence, peacekeepers will be associated with higher homicide counts. If these reporting biases are severely affecting the results, I should find a positive coefficient for UNPOL in particular. What the analysis reveals, in fact, is that UNPOL is associated with *fewer* homicides and only UN troops have a positive coefficient. A different form of bias concerns UN presence resulting in more reported homicides as a consequence of an intentional miscategorization of political killings as criminal killings. However, this implies a negative correlation between political and criminal violence, which, as mentioned, is very close to zero in fact.

A fourth concern is that ungoverned spaces where the state is absent explain both deployment and homicides, thus indicating a spurious relationship. Particularly at the subnational level, pockets of no governance are common. While measuring degrees of un(der)governance is a challenge, there are some important features of the research design that would rule out this alternative explanation. First, the subnational analysis includes the logged number of police stations in each state, which is a proxy for state presence. Second, all states in South Sudan host peacekeepers, so the underlying selection process is not whether to send peacekeepers or not; rather, it is about how many should be sent, which is in turn driven by conflict intensity. Underprovision of state capacity would be a more severe problem if some units did not receive peacekeepers at all. Third, since the time window I analyze subnationally is relatively narrow (18 months), I expect no significant temporal variation in degrees of state capacity, which is a slow-moving factor. This means that fixed effects would correct for this unobserved heterogeneity, given its assumed time invariance in the sample.

The challenges discussed in this paragraph warn us from drawing causal conclusions from the analysis, which is why this article refrains from using causal language. However, the following analysis is clearly indicative of a plausible impact that peace operations may have on criminal violence.

## Country-Level Analysis

The cross-national sample includes countries that experienced internal conflict from 1995 to 2012. Countries enter the data set if they experience violent conflict in a given year and leave after 5 consecutive years of peace. Figure 1 shows all countries in the sample, distinguishing those that hosted peacekeeping operations (blue striped) from others (gray). Overall, 58 countries experienced conflict,

and the UN intervened in 19 of these instances. Including both countries that hosted and did not host UN missions is important to distinguish whether increasing trends in crime are comparable across all civil wars or whether peacekeepers played a role in this process. In other words, by including both scenarios with and without UN peacekeepers, I can investigate whether peacekeepers' presence altered otherwise similar trends of criminal violence. Figure 2 plots average annual homicide rates in countries included in the sample. Hollow circles are yearly country observations.<sup>5</sup> On average, Figure 2 shows that homicide rates are lower in countries with UN peace missions (blue line). The peak around 1995 and 1996 is El Salvador, the main outlier in the sample.<sup>6</sup>

Figure 2 does not counter the argument that peacekeepers' presence may favor inducing environments for criminal violence. The argument of this article is that sizable military operations accelerate the unfolding of conditions that produce more criminal violence.

## Estimation and Results

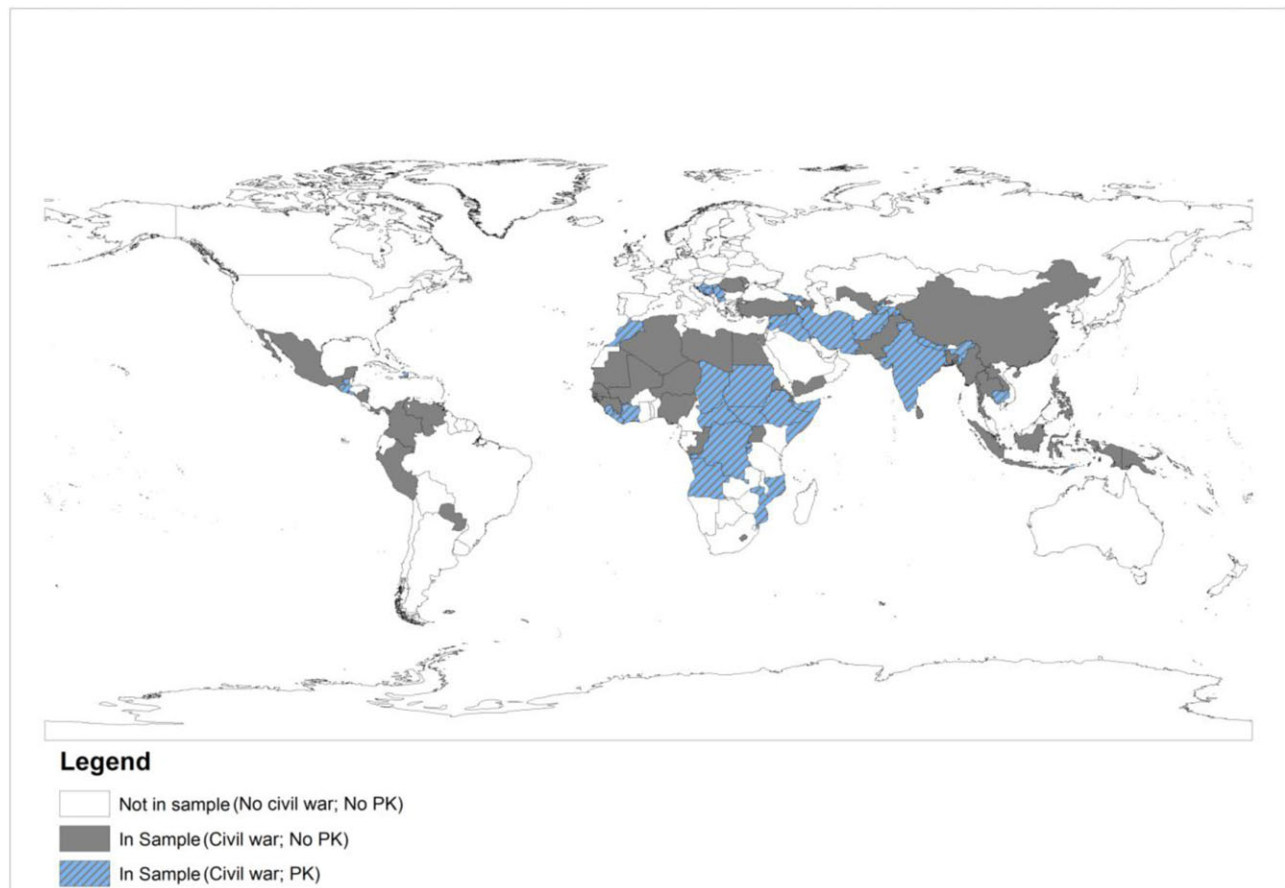
One assumption of Hypothesis 1 linking homicides and peace missions is that UN troops reduce battle-related violence. This assumption is empirically supported in Hultman, Kathman, and Shannon's (henceforth HKS, 2014) study on peacekeeping in Africa. In their sample (African countries in civil wars, 1992–2011), UN armed personnel effectively reduced monthly political violence. The hypothesis I formulate hinges in part on this stabilizing effect that blue helmets have on host-states, whose fluctuations, we have seen, could drive criminal violence trends. Since existing studies find that UN personnel reduce conflict, I expect this to spur more homicides because of the security and economic effects provoked by large UN missions.

Given the relevance of this mechanism, I begin by analyzing HKS (2014) data with yearly temporal aggregation. The results in Model 1 (Table 1) are in line with expectations, as the UN military is associated with less violence in the subsequent period, whereas no significant effect is found for UNPOL. Armed personnel, more specifically troops, have a curbing effect on political violence because they signal stronger commitment. Consequently, the theoretical argument that, by reducing

<sup>5</sup>Plots in the article are created in Stata (v. 15) using Plottig (Bischof 2018). Maps are created in ArcGIS (v. 10.5.1).

<sup>6</sup>The rate of homicides for El Salvador in 1995 is 139—almost 8,000 cases of intentional killing—the maximum value in the sample. Results do not change when El Salvador is excluded (not shown).



**FIGURE 1 Countries Included in the Sample**

*Note:* A list of the included countries is in SI Section A2 (5).

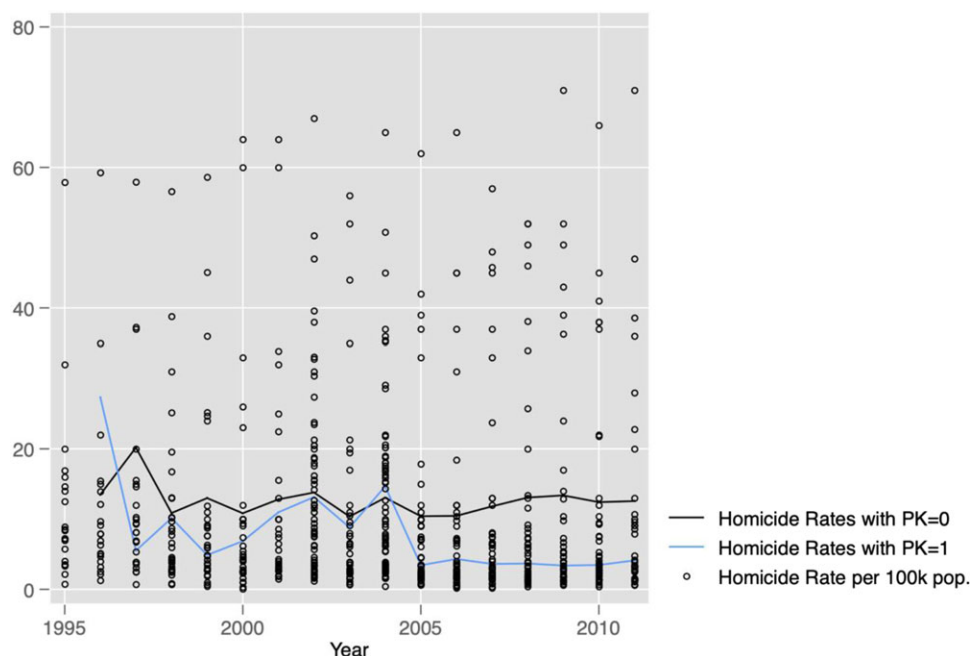
political violence, peacekeepers foster more criminal violence is likely to be observed in the African case.

In Models 2 and 3, I use homicide rates as the dependent variable and include all control variables from HKS (2014). Peacekeeping missions are coded with a dummy variable in Model 2, which does not report a significant coefficient.<sup>7</sup> Model 3 disaggregates personnel type and size, and indicates that only UNPOL is significantly as-

<sup>7</sup>In additional analysis, I use International Military Intervention data (Pickering and Kisangani 2009) to control for other interveners in the host country. The main results for UN personnel do not change, but interestingly, multilateral interventions are associated with increasing homicide rates while unilateral interventions are not. This is not surprising since the argument of the article is not UN-specific, but rather generalizable to sizable external military intervention. NATO or African Union missions that stabilize countries of deployment should produce similar results, with the exception that no international organization deploys units similar to the UNPOL. This means that the results of UN missions' sample are optimistic if compared to organizations that provide peacekeeping without deploying police units that counter unintended increases in criminal violence.

sociated with fewer homicides in the next year, whereas a positive and significant coefficient is reported for UN troops. Since the main task of troops is to deter political violence, it is likely that their deterring role has the counterproductive effect of spurring criminal violence. Put differently, UNPOL is associated with reduced criminal violence as its main responsibilities are rule of law, joint policing with national police, and capacity building—all activities that deter crimes. To some extent, police and troops may affect criminal violence in opposite ways as a result of their effectiveness in performing their roles. Interestingly, on control variables, DDR programs relate to increasing homicide rates, which is consistent with the individual-level argument proposed. Furthermore, all else equal, countries with cease-fires and within 5 years from conflict termination are also less likely to experience rising levels of criminal violence. Finally, conflict violence negatively correlates with homicides as hypothesized, although the coefficient does not reach statistical significance. The supporting information (Section A5, 10)

**FIGURE 2 Trends in Homicides in Conflict Countries with (Blue) and without (Black) Peacekeepers**



digs into this relation and shows that there is a threshold beyond which conflict reduction is accompanied by a concurrent reduction in criminal violence. Indeed, missions that fail to provide any degree of security are unlikely to have an impact on criminal violence; but when missions are particularly successful and almost eliminate conflict-related violence, these improvements will also be beneficial for crime reduction.

I extend the analysis to the sample of countries mapped in Figure 1. Thus, models in Table 2 have more observations than the control variables described previously.<sup>8</sup> UN missions vary across regions in terms of composition, but the combination of country and region-year fixed effects addresses this concern. In Model 4, both UN troops and police have a significant effect on homicides, and, as in Model 3, the effect is negative for police but positive for troops. In Model 5, the sample is weighted using coarsened exact matching (CEM). CEM allows for comparing countries that are similar except for having hosted UN missions by reducing the imbalance among covariates. I match countries based on predeployment levels of conflict (battle deaths) and state fragility. In essence, CEM

coarsens the sample on a set of variables; once observations are divided into strata, weights balance the number of treated (with peacekeeping) and untreated (without peacekeeping) observations in each stratum. This alleviates selection bias and model dependence. Following this procedure, the original covariate imbalance drops from 0.86 to 0.18. Results in Models 5 are in line with Model 4.

More substantively, estimates from Model 5 reveal that moving from 0 to 1,000 UN troops (and no UNPOL) is associated with an increase in homicide rates per 100,000 population from 7.1 to 8.8. In a relatively small country such as Liberia, with a population of more than 4 million people, this corresponds to a yearly increase of 68 more homicides. It is estimated that to counter this increase, the UN should deploy at least 85 UN police units alongside the 1,000 additional troops. This does not mean that the UNPOL to UN troops ratio should always be 8.5:100, but such a ratio seems advisable at least until political violence is substantially reduced.

## Subnational Case Study: South Sudan

The country-year analysis provides initial evidence of a relationship between peacekeeping and criminal violence. The fundamental limitation for cross-national

<sup>8</sup>In SI Section A9 (17), I present specifications that include other potential determinants of homicides as suggested in previous research. Because of missing data, this addition reduces the sample size.

**TABLE 1 Models on African Sample with Dynamic PCSE**

	<b>Model 1</b> <b>HKS Africa Data DV:</b> <b>Battle Deaths</b>	<b>Model 2</b> <b>UN Dummy DV:</b> <b>Homicide Rates</b>	<b>Model 3</b> <b>UN Personnel DV:</b> <b>Homicide Rates</b>
UN Troops	−0.000 <sup>+</sup> (0.000)		0.002* (0.000)
UNPOL	0.001 (0.000)		−0.127* (0.030)
PKO Dummy		−4.804 (3.275)	
Conflict Deaths	0.007* (0.001)	−0.012 (0.010)	−0.012 (0.010)
Cease-fire	−0.806 (0.590)	−9.584* (3.221)	−7.773* (3.143)
Rebel Strength	−0.520 (0.698)	64.002* (10.566)	59.565* (10.974)
Num. of Rebel Groups	0.145 (0.158)	−13.059* (2.877)	−12.099* (2.750)
Population (log)	−4.098 <sup>+</sup> (2.229)	35.460 <sup>+</sup> (18.362)	38.739* (17.011)
GDP per Capita	0.000 (0.001)	0.001 (0.004)	0.001 (0.004)
Biased Mission	0.087 (0.472)	2.032 (2.432)	1.772 (2.285)
DDR	−0.014 (0.242)	9.811* (2.562)	9.837* (2.471)
Postconflict	−1.261* (0.391)	−8.313* (2.382)	−7.422* (2.218)
Observations	299	88	88

*Note:* Standard errors are in parentheses. Country and region-year fixed effects are included.

\* $p < .05$ ,  $+p < .10$ .

analysis is the level of aggregation; peacekeepers are not homogeneously located in host-states; thus, at the country level, we fail to observe whether variation in homicides is related to variations in UN personnel. Hence, I complement the country-level empirical analysis with a subnational analysis.

The case of South Sudan is of particular interest since most crimes were not related to smuggling of natural resources or other activities commonly also carried out by rebel groups. Most homicides in South Sudan are the result of cattle raids, one of the main forms of organized crime in the country. The data also show that there is no significant overlap between areas that experienced very intense conflict and those that recorded high levels of homicides in the aftermath of independence from Sudan. The last UNODC Global Study on Homicide highlighted that in South Sudan, “high levels of impunity, combined with ill-conceived DDR programs, the wide availability of

weapons, and criminal opportunities associated with illicit markets can lead to other forms of violence, such as increased rates of homicides” (2013, 12). Interestingly, the same trend is also visible in Haiti, Afghanistan, Guatemala, Sierra Leone, and Liberia—all countries that hosted UN peacekeeping missions. As mentioned and discussed, UNDP assisted South Sudan police in the collection of data on crime and homicide rates almost since its independence in July 2011.

## Conflict Background

In January 2011, a referendum for the independence of South Sudan was held. The referendum had been granted as part of the 2005 Comprehensive Peace Agreement (CPA) that officially ended the conflict between the Sudanese government and the Sudan People’s Liberation

**TABLE 2 Post-CEM Models on Global Sample with Dynamic PCSE**

	<b>Model 4</b>	<b>Model 5</b>
	<b>Global Sample</b>	<b>Global Sample (CEM)</b>
UN Troops	0.003* (0.000)	0.003* (0.000)
UNPOL	-0.155* (0.047)	-0.165* (0.050)
Conflict Deaths	-0.021* (0.006)	-0.019* (0.006)
State Fragility	-0.158 (0.236)	-0.058 (0.212)
Cease-fire	-0.274 (1.908)	-0.496 (1.939)
Population (log)	-9.906 (7.992)	-2.818 (9.069)
GDP per Capita	-0.001* (0.000)	-0.001* (0.000)
DDR	2.862 <sup>+</sup> (1.582)	3.946* (1.807)
Postconflict	-1.713* (0.593)	-1.360* (0.483)
Observations	352	324

*Note:* Panel-corrected standard errors are in parentheses. Country and region-year fixed effects are included.

\* $p < .05$ , + $p < .10$ .

Movement (SPLM). Almost 99% of participants in the referendum voted for independence, and South Sudan officially became independent in July 2011. In the same month, UNMISS was established and began transferring personnel from the terminated UNMIS (in Sudan) to UNMISS. The original mandate of the mission was multidimensional and included tasks from state building to economic development and security-sector reforms. The mission included troops, UNPOL, observers, and civilian staff from the onset; however, due to the political crisis and the ensuing civil war, in 2013 the UN increased troops' presence in the country. The outbreak of civil war in 2013 forced a change in the mandate toward humanitarian issues and protection of civilians. However, the exceptional circumstances that make UNMISS a not-so-typical mission today were largely absent in the period under consideration. The original mandate of UNMISS does not differ substantially from the mandate of other robust UN missions such as MONUSCO and UNAMSIL. It is also important to acknowledge that South Sudan had increasingly gained autonomy from the government in Karthoum. Regional autonomy was granted with the Addis Ababa Agreement in 1972 (though re-

neged in 1983) and with the 2005 CPA. Hence, the day after independence, South Sudan could rely on institutional arrangements and structures to govern, however dysfunctional.

### Subnational Analysis

The unit of analysis for this subnational study is state-month. States are first-order administrative units of South Sudan. These 10 units<sup>9</sup> are analyzed for 18 months (June 2011 to March 2013). The analysis starts just before independence and the arrival of the UN mission. The time frame is constrained by the availability of national crime statistics. Figure 3 shows a clear increase in homicides just after UNMISS deployment.

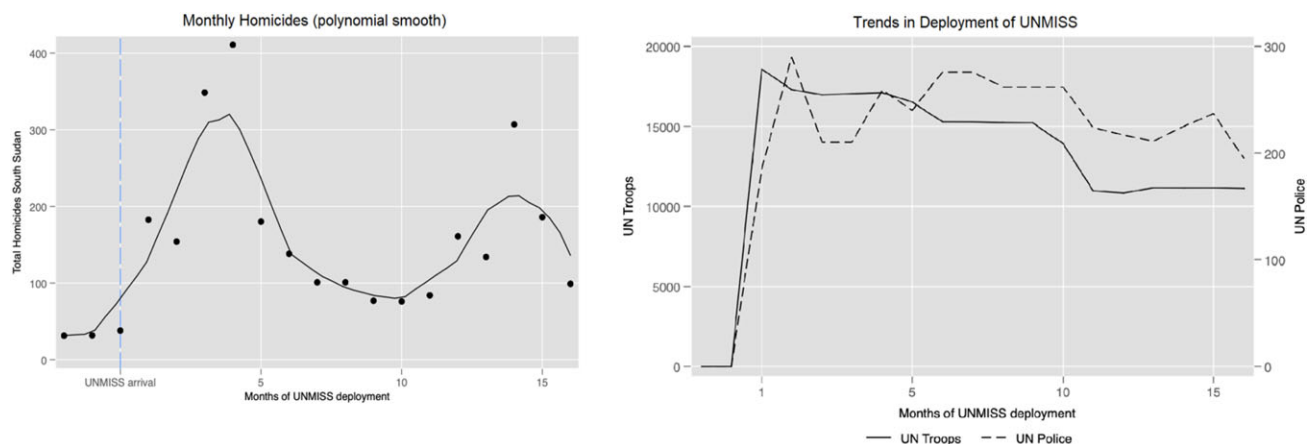
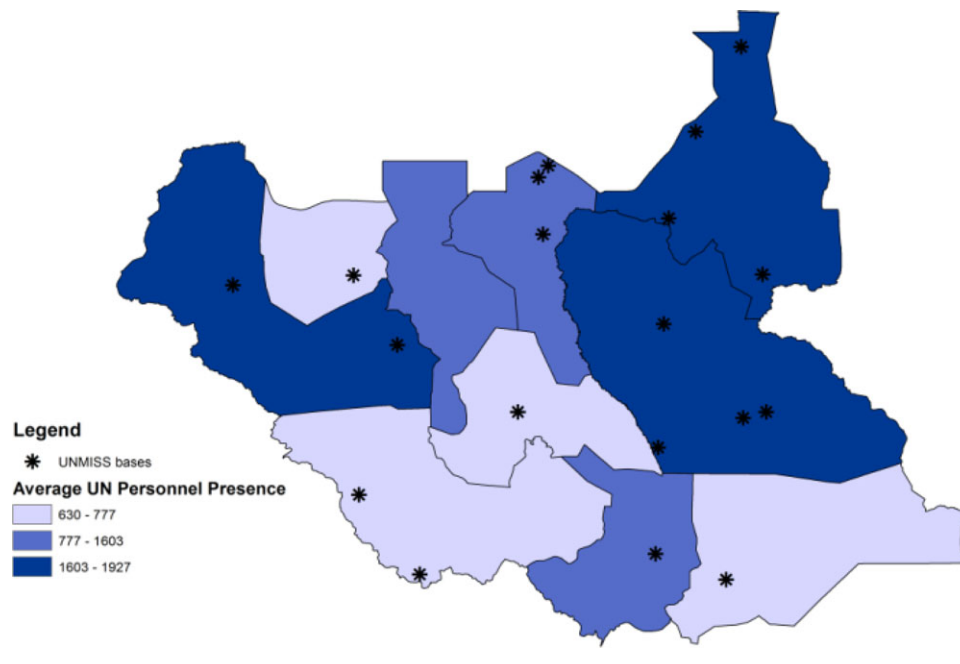
As mapped in Figure 4, UNMISS deployed to all South Sudanese states as a consequence of the decentralized strategy adopted by the mission. However, there is variation in size of the deployment by state. Furthermore, Figure 5 and 6 show that, overall, the intensity of criminal violence (homicides) does not clearly mirror patterns of political violence in the period under consideration. In other words, states that are torn by conflict do not necessarily score high on homicides. In the SI (Section A11, 21), I discuss endogeneity concerns for both troops and police, showing that they are not deployed based on substantially differing logics, and their deployment does not respond to homicide rates.

The first model estimated in Table 3 measures peacekeeping as the total number of UN personnel deployed in each South Sudanese state. The results show that larger contingents are statistically associated with more homicides in the following month (Model 6). Model 7 disaggregates UNMISS by personnel, namely, troops and police, showing that troops are positively related to homicides, whereas a negative relation exists for UNPOL. Hence, the subnational analysis seems to provide support for the relationship observed at the country-year level.

In more substantive terms, homicide rates move from 1.5 to 2.5 when there is one standard deviation increase in troop size (from 1,300 to 2,100) but decrease at a similar rate when approximately 40 UNPOL officers (at least) are sent to the state. It is important to recall that troops are often in the order of thousands, whereas the police component is significantly smaller. As mentioned, however, UNPOL should reduce criminal violence by empowering national police and training officers; few tens of UNPOL usually train hundreds of national counterparts, which

<sup>9</sup>After 2015, the number of states changed to 28 and then 32 in 2017.



**FIGURE 3 Trends in Homicides and UNMISS Deployment****FIGURE 4 Average UNMISS Deployment**

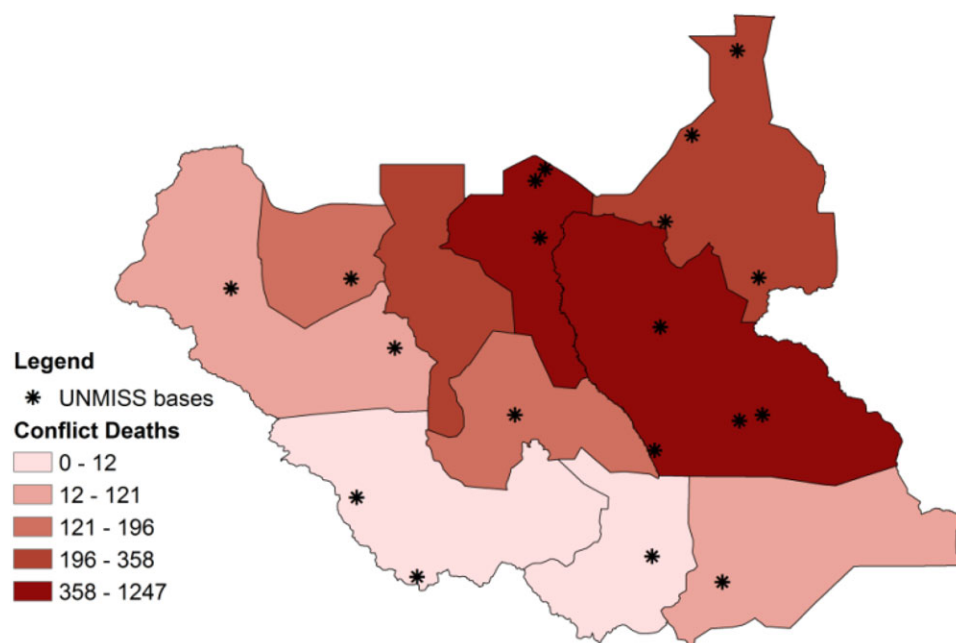
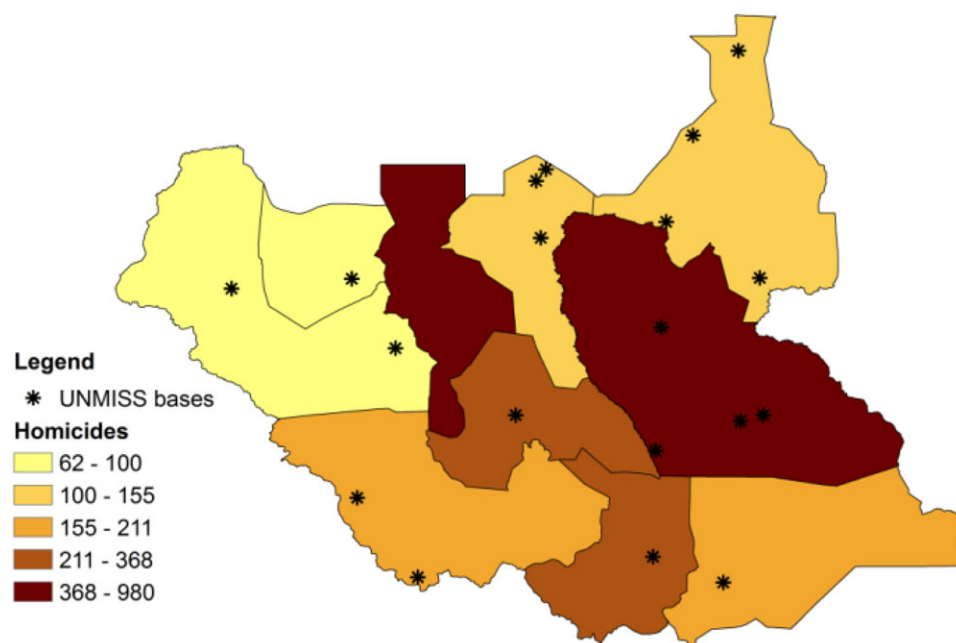
explains why relatively a small number of UNPOL exert a strong effect on criminal violence. By comparing the plots in Figure 7, the two types of personnel seem to have opposite effects on homicide.

One important corollary is that UN troops and police are usually deployed together in the same location. So it could be that the UNPOL negative effect can fully mitigate the positive impact of UN troops when enough police are deployed alongside troops. To investigate this issue and estimate the net impact of UN presence on the ground on homicide rates, I interact UNPOL and UN troops (Model 8). Figure 8 shows the interaction effect and suggests UNPOL can moderate the positive effect of UN

troops if at least 60 police units are deployed in the same location. If UNPOL numbers fall below 30, homicide rates tend to rise as more troops are deployed.

## Discussion and Conclusions

This article is the first to analyze the effect of peacekeeping on criminal violence. I have formulated the hypothesis that peacekeepers may trigger and/or facilitate criminal violence for two reasons. First, peacekeepers reduce political violence and create more space for illegal business and criminal groups, as a result of peacekeeping economies,

**FIGURE 5 Average Conflict-Related Deaths**

**FIGURE 6 Average Homicide Deaths**


decreasing instability, and the counterproductive establishment of a nonstate monopoly of violence that is limited to only addressing political violence.

Second, the disarmament of combatants may expand the pool of individuals willing to “invest” their violent skills in criminal activities, sometimes independently

from implementation and success of DDR programs and security sector reform (SSR).

The resulting relationship between peacekeeping missions (as a function of UN troop deployment, the main actor responsible for curbing political violence) and criminal violence is expected to be positive. Conversely,

**TABLE 3 Estimation on South Sudan Mission with Dynamic PCSE**

	<b>Model 6</b>	<b>Model 7</b>	<b>Model 8</b>
	<b>Total UN</b>	<b>UN Type</b>	<b>Interaction</b>
UN Total	0.000 <sup>+</sup>		
Personnel	(0.000)		
UN Troops		0.001*	0.003*
		(0.000)	(0.000)
UNPOL		−0.075*	0.027
		(0.018)	(0.020)
UNTroops × UNPOL			−0.000*
			(0.000)
UN Others		−0.006	−0.050 <sup>+</sup>
		(0.021)	(0.029)
Conflict	0.005	0.007	0.009
Deaths	(0.013)	(0.012)	(0.012)
Conflict	−0.000	−0.000	−0.000
Deaths (sq.)	(0.000)	(0.000)	(0.000)
Population	−0.069	−0.078	−0.132
Density	(0.105)	(0.132)	(0.117)
Poverty	−0.010	−0.009	−0.002
Incidence	(0.013)	(0.027)	(0.020)
Urban Share	−0.103	−0.091	−0.101
	(0.092)	(0.096)	(0.090)
DV (Sp. Lag)	0.052	0.174	−0.040
	(0.181)	(0.181)	(0.158)
Num. Police	0.817	0.786	0.944
Stations (ln)	(0.712)	(0.616)	(0.679)
Observations	180	180	180

Note: Panel-corrected standard errors are in parentheses. State-level fixed effects are included.

\*p < .05, +p < .10.

UNPOL is hypothesized to have a negative correlation with criminal violence.

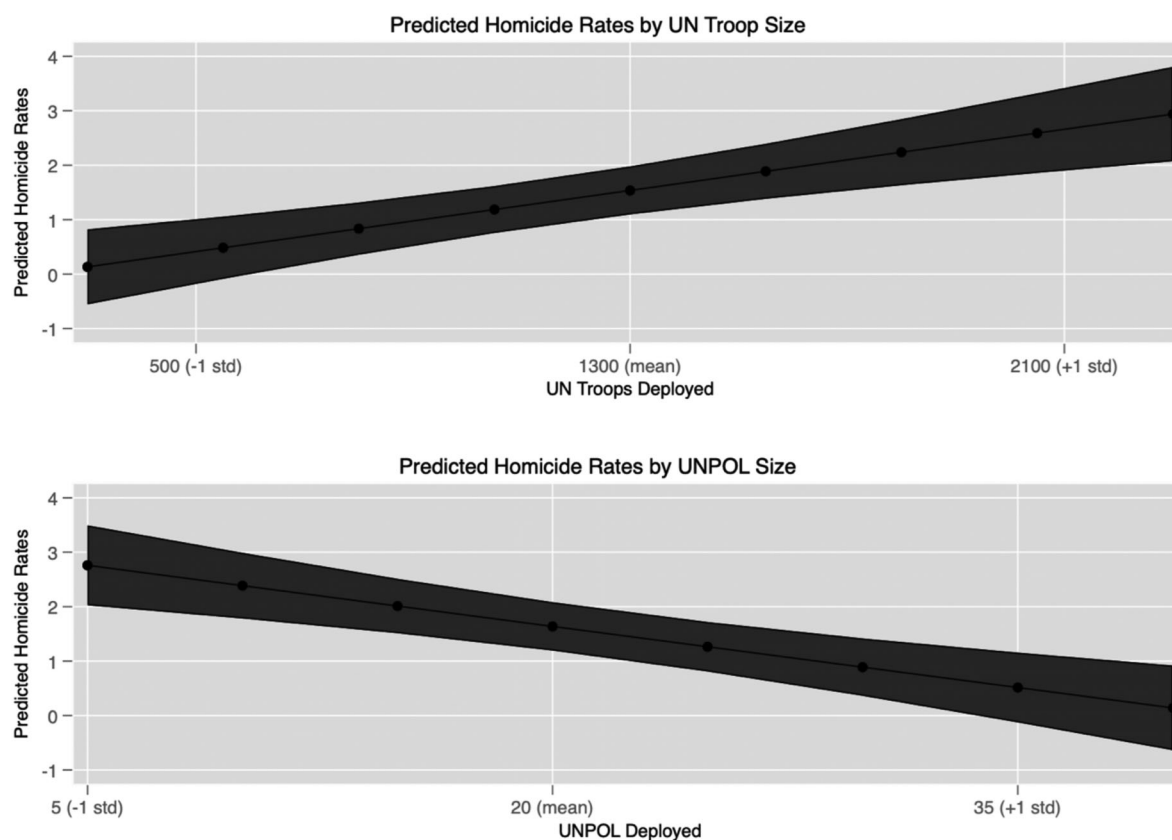
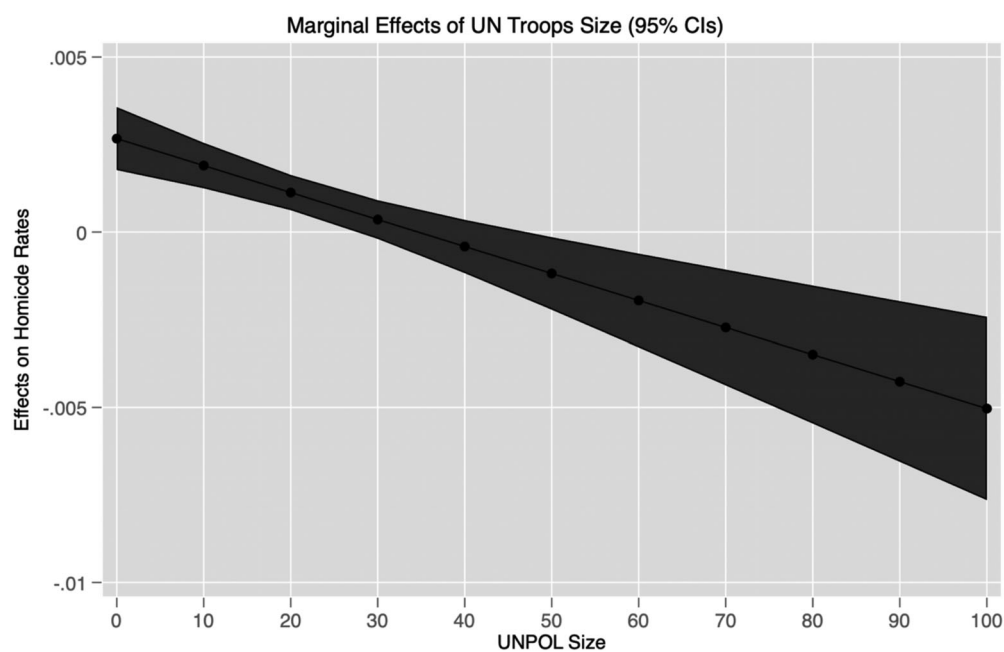
The empirical evidence provided in this article supports these expectations robustly at different levels of analysis, with different model specifications and using different estimation strategies. At the country-year level, the mere presence of peacekeepers does not affect violence, although large missions do increase homicide rates. However, when the mission is disaggregated by type of personnel and relative size, presence of military personnel is robustly associated with more homicides. Police, on the other hand, have a positive impact on curbing criminal violence, and although police are deployed in smaller contingents than troops, their beneficial impact is not dwarfed by the (unintended) nefarious one troops have. In fact, when deployed in the same location, UNPOL mit-

igates these effects and manages to counter crime, likely by supporting and assisting national police.

But, overall, large missions are associated with rising homicide rates, consistent with the hypothesized security and economic effects of military missions on organized and individual crime. The importance of the country-level analysis is that it shows that countries with UN missions with significant military components experience higher levels of homicides, compared to others with low or no UN presence. So the rise in homicides is not simply a consequence of the postconflict environment because (a) not all countries with UN missions are in a postconflict phase, and (b) the sample includes both countries with and without “treatment.” The subnational analysis of monthly homicides and UNMISS personnel deployment mirrors the country-year analysis. The supporting information further strengthens these conclusions with a falsification test indicating that overall levels of crimes and of nonviolent crimes are unrelated to peacekeeping activities. Homicides and organized crime-related measures, on the other hand, are robustly related to troops (positively) and police (negatively).

This study highlights that the focus on battlefield violence and political actors in most UN missions is shortsighted. New multidimensional peacekeeping involves more civilian-oriented tasks, but troops still make up the largest share of peacekeeping personnel. Considering that reducing violence is of the highest priority for peacekeepers, this is not surprising. But it does not match the broader UN strategy for peace as outlined in the 2015 high-level independent panel on peace operations (HIPPO).

The very first recommended shift put forward in the HIPPO is that peace missions “should be deployed as part of a broader strategy in support of a political process,” emphasizing the importance of protecting civilians “in all dimensions,” including criminal violence (UN 2015). With this regard and in line with the empirical findings, the role of UNPOL is acknowledged as crucial. The findings of this study do not suggest that UN troops *cannot* reduce criminal violence. A fairer conclusion is that UN troops are ill-equipped to reduce criminal violence *under current mandates* that do not allow them to directly engage criminal actors. The UN should keep sending large contingents of blue helmets because they achieve the primary goal of saving lives. However, the UN should also closely monitor how deployment impacts other forms of violence. Awareness about how transition to peace works and potential side effects can improve missions’ planning in terms of sequencing and timing of deployment. Future research should be devoted to unpacking dynamics

**FIGURE 7 Predicted Homicide Rates****FIGURE 8 Conditional Effect of UN Troops by UNPOL size**



between conflict and criminal violence to uncover which mechanisms explain their nonlinear relationship and how transition to peace can be managed to contain surges in criminal violence.

## References

- Abadinsky, Howard. 2007. *Organized Crime*. Belmont, CA: Wadsworth.
- Andreas, Peter. 2008. *Blue Helmets and Black Markets: The Business of Survival in the Siege of Sarajevo*. Ithaca, NY: Cornell University Press.
- Andreas, Peter. 2009. "Symbiosis between Peace Operations and Illicit Business in Bosnia." *International Peacekeeping* 16(1): 33–46.
- Archer, Dane, and Rosemary Gartner. 1976. "Violent Acts and Violent Times: A Comparative Approach to Postwar Homicide Rates." *American Sociological Review* 41(4): 937–63.
- Di Salvatore, Jessica, and Andrea Ruggeri. 2017. "Effectiveness of Peacekeeping Operations." In William Thompson (ed.), *Oxford Research Encyclopedia of Politics* (Online edition). New York: Oxford University Press.
- Autesserre, Séverine. 2010. *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding* (Vol. 115). New York: Cambridge University Press.
- Beardsley, Kyle, and Kristian Skrede Gleditsch. 2015. "Peacekeeping as Conflict Containment." *International Studies Review* 17(1): 67–89.
- Beber, Bernd, Michael Gilligan, Jenny Guardado, and Sabrina Karim. 2017. "Peacekeeping, International Norms, and Transactional Sex in Monrovia, Liberia." *International Organization* 71(1): 1–30.
- Beck, Nathaniel, and Jonathan Katz. 1995. "What to Do (and Not to Do) with Time-Series Cross-Section Data." *American Political Science Review* 89(3): 634–47.
- Becker, Gary. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76(2): 169–217.
- Bell, Sam, Michael Flynn, and Carla Martinez Machain. 2018. "UN Peacekeeping Forces and the Demand for Sex Trafficking." *International Studies Quarterly* 62(3): 643–55.
- Bischof, Daniel. 2018. "New Graphic Schemes for Stata: Plot-plain and Plottig." *The Stata Journal* 17(3): 748–75.
- Bove, Vincenzo, and Evelina Gavrilova. 2017. "Police Officer on the Frontline or a Soldier? The Effect of Police Militarization on Crime." *American Economic Journal: Economic Policy* 9(3): 1–18.
- Chalfin, Aaron, and Justin McCrary. 2017. "Criminal Deterrence: A Review of the Literature." *Journal of Economic Literature* 55(1): 5–48.
- Clunan, Anne, and Harold Trinkunas. 2010. *Ungoverned Spaces: Alternatives to State Authority in an Era of Softened Sovereignty*. Stanford, CA: Stanford University Press.
- Cockayne, James, and Adam Lupel, eds. 2011. *Peace Operations and Organized Crime: Enemies or Allies?* New York: Routledge.
- Collier, Paul. 1994. "Demobilization and Insecurity: A Study in the Economics of the Transition from War to Peace." *Journal of International Development* 6(3): 343–51.
- Daly, Sarah Zukerman, Laura Paler, and Cyrus Samii. 2016. "Wartime Networks and the Social Logic of Crime." Unpublished manuscript. [http://sarahzukermandaly.com/wp-content/uploads/2016/02/wartime\\_ties\\_main.pdf](http://sarahzukermandaly.com/wp-content/uploads/2016/02/wartime_ties_main.pdf).
- Di Tella, Rafael, and Ernesto Scharfrodsky. 2004. "Do Police Reduce Crime? Estimates using the Allocation of Police Forces after a Terrorist Attack." *American Economic Review* 94(1): 115–133.
- Fortna, Virginia Page. 2003. "Inside and Out: Peacekeeping and the Duration of Peace after Civil and Interstate Wars." *International Studies Review* 5(4): 97–114.
- Fortna, Virginia Page. 2008. *Does Peacekeeping Work? Shaping Belligerents' Choice after Civil War*. Princeton, NJ: Princeton University Press.
- Gambetta, Diego. 1995. *The Sicilian Mafia: The Business of Private Protection*. Cambridge, MA: Harvard University Press.
- Gilligan, Michael, and Stephen Stedman. 2003. "Where Do Peacekeepers Go?" *International Studies Review* 5(4): 37–54.
- Gilligan, Michael, and Ernest Sergenti. 2008. "Do UN Interventions Cause Peace? Using Matching to Improve Causal Inference." *Quarterly Journal of Political Science* 3(2): 89–122.
- Gleditsch, Kristian. 2002. "Expanded Trade and GDP Data." *Journal of Conflict Resolution* 46(5): 712–24.
- Goodhand, Jonathan. 2005. "Frontiers and Wars—The Opium Economy in Afghanistan." *Journal of Agrarian Change* 5(2): 191–216.
- Grady, Kate. 2016. "Sex, Statistics, Peacekeepers and Power: UN Data on Sexual Exploitation and Abuse and the Quest for Legal Reform." *Modern Law Review* 79(6): 931–60.
- Harbom, Lotta, Stina Högladh, and Peter Wallensteen. 2006. "Armed Conflict and Peace Agreements." *Journal of Peace Research* 43(5): 617–31.
- Hazen, Jennifer. 2010. "Understanding Gangs as Armed Groups." *International Review of the Red Cross* 92(878): 369–86.
- Högladh, Stina. 2011. "Peace Agreements 1975–2011: Updating the UCDP Peace Agreement Dataset." In *States in Armed Conflict 2011*, eds. Therése Pettersson and Lotta Themnér. Uppsala University Department of Peace and Conflict, Research Report 99.
- Hultman, Lisa, Jacob Kathman, and Megan Shannon. 2013. "United Nations Peacekeeping and Civilian Protection in Civil War." *American Journal of Political Science* 57(4): 875–91.
- Hultman, Lisa, Jacob Kathman, and Megan Shannon. 2014. "Beyond Keeping Peace: United Nations Effectiveness in the Midst of Fighting." *American Political Science Review* 108(9): 737–53.
- Iacus, Stefano, Gary King, and Giuseppe Porro. 2011. "Causal Inference without Balance Checking: Coarsened Exact Matching." *Political Analysis* 20(1): 1–24.
- International Peace Institute. "IPI Peacekeeping Database." <http://www.providingforpeacekeeping.org/contributions/>.
- Jennings, Kathleen, and Vesna Nikolić-Ristanović. 2009. "UN Peacekeeping Economies and Local Sex Industries: Connections and Implications." MICROCON WP17.

- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1488842](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1488842).
- Kalyvas, Stathis. 2015. "How Civil Wars Help Explain Organized Crime—and How They Do Not." *Journal of Conflict Resolution* 59(8): 1–24.
- Kalyvas, Stathis, and Matthew Kocher. 2009. "The Dynamics of Violence in Vietnam: An Analysis of the Hamlet Evaluation System (HES)." *Journal of Peace Research* 46(3): 335–55.
- Kaplan, Oliver, and Enzo Nussio. 2018. "Explaining Recidivism of Ex-Combatants in Colombia." *Journal of Conflict Resolution* 62(1): 64–93.
- Knight, Mark, and Alpaslan Ozerdem. 2004. "Guns, Camps and Cash: Disarmament, Demobilization and Reinsertion of Former Combatants in Transitions from War to Peace." *Journal of Peace Research* 41(4): 499–516.
- Kolbe, Athena. 2013. "Revisiting Haiti's Gangs and Organized Violence." *Households in Conflict Network* WP147. <http://www.hicn.org/wordpress/wp-content/uploads/2012/06/HiCN-WP-147.pdf>.
- Kreutz, Joakim. 2010. "How and When Armed Conflicts End: Introducing the UCDP Conflict Termination Dataset." *Journal of Peace Research* 47(2): 243–50.
- Liem, Marieke, and William Pridemore, eds. 2012. *Handbook of European Homicide Research*. New York: Springer.
- Marshall, Monty, and Benjamin Cole. 2014. *Global Report 2014*. Center for Systemic Peace. <http://www.systemicpeace.org/vlibrary/GlobalReport2014.pdf>.
- Mazzitelli, Antonio. 2007. "Transnational Organized Crime in West Africa: The Additional Challenge." *International Affairs* 83(6): 1071–90.
- McGarrell, Edmund, Steven Chermak, Alexander Weiss, and Jeremy Wilson. 2001. "Reducing Firearms Violence through Directed Police Patrols." *Criminology & Public Policy* 1(1): 119–48.
- Moro, Francesco, Andrea Petrella, and Salvatore Sberna. 2014. "The Politics of Mafia Violence: Explaining Variation in Mafia Killings in Southern Italy (1983–2008)." *Terrorism and Political Violence* 28(1): 90–113.
- Muggah, Robert, ed. 2008. *Security and Post-Conflict Reconstruction*. New York: Routledge.
- National Bureau of Statistics. 2011. *South Sudan Statistical Yearbook*. <http://static1.1.sqspcdn.com/static/f/750842/18935415/1349357346780/South+Sudan+Statistical+Yearbook+2011+FINAL.pdf?token=zhLQaCV5jaOHkoxhsq9EWUKRYO0%3D>.
- National Bureau of Statistics. 2014. *Population Projections, South Sudan from 2008–2015*. [http://www.ssnbss.org/sites/default/files/2016-08/population\\_projections\\_for\\_south\\_sudan\\_2015\\_2020.pdf](http://www.ssnbss.org/sites/default/files/2016-08/population_projections_for_south_sudan_2015_2020.pdf).
- Needleman, Martin, and Carolyn Needleman. 1979. "Organizational Crime: Two Models of Criminogenesis." *The Sociological Quarterly* 20(4): 517–28.
- Neumayer, Eric. 2003. "Good Policy Can Lower Violent Crime: Evidence from a Cross-National Panel of Homicide Rates, 1980–97." *Journal of Peace Research* 40(6): 619–40.
- Neumayer, Eric. 2005. "Inequality and Violent Crime: Evidence from Data on Robbery and Violent Theft." *Journal of Peace Research* 42(1): 101–12.
- Nordås, Ragnhild, and Siri Rustad. 2013. "Sexual Exploitation and Abuse by Peacekeepers: Understanding Variation." *International Interactions* 39(4): 511–34.
- Nussio, Enzo. 2018. "Ex-Combatants and Violence in Colombia: Are Yesterday's Villains Today's Principal Threat?" *Third World Quarterly (Thematics)* 3(1): 135–52.
- Ouimet, Marc. 2012. "A World of Homicides: The Effect of Economic Development, Income Inequality, and Excess Infant Mortality on the Homicide Rate for 165 Countries in 2010." *Homicide Studies* 16(3): 238–58.
- Patel, Ana Cutter, Pablo DeGreiff, and Lars Waldorf, eds. 2010. *Disarming the Past: Transitional Justice and Ex-Combatants*. New York: Social Science Research Council.
- Patrick, Stewart. 2011. *Weak Links: Fragile States, Global Threats, and International Security*. New York: Oxford University Press.
- Perito, Robert. 2004. *Where Is the Lone Ranger When We Need Him?* Washington, DC: United States Institute of Peace. <https://www.usip.org/publications/2004/01/where-lone-ranger-when-we-need-him>
- Pettersson, Therese, and Petter Wallensteen. 2015. "Armed Conflicts, 1946–2014." *Journal of Peace Research* 52(4): 536–50.
- Phayal, Anup, Prabin Khadka, and Clayton Thyne. 2015. "What Makes an Ex-Combatant Happy? A Micro-Analysis of Disarmament, Demobilization, and Reintegration in South Sudan." *International Studies Quarterly* 59(4): 654–68.
- Pickering, Jeffrey, and Emizet F. Kisangani. 2009. "The International Military Intervention Dataset: An Updated Resource for Conflict Scholars." *Journal of Peace Research* 46(4): 589–599.
- Pinotti, Paolo. 2015. "The Causes and Consequences of Organized Crime: Preliminary Evidence across Countries." *The Economic Journal* 125(586): 58–74.
- Rivera, Mauricio. 2016. "The Sources of Social Violence in Latin America." *Journal of Peace Research* 53(1): 84–99.
- Ruggeri, Andrea, Han Dorussen, and Theodora-Ismene Gizelis. 2018. "On the Frontline Every Day? Subnational Deployment of United Nations Peacekeepers." *British Journal of Political Science* 48(4): 1005–25.
- Sampson, Robert, and Byron Groves. 1989. "Community Structure and Crime: Testing Social-Disorganization Theory." *American Journal of Sociology* 94(4): 774–802.
- Schulhofer-Wohl, Jonah, and Nicholas Sambanis. 2010. *Disarmament, Demobilization, and Reintegration Programs: An Assessment*. Folke Bernadotte Academy Report. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1906329](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1906329).
- Shortland, Anja, and Federico Varese. 2014. "The Protector's Choice: An Application of Protection Theory to Somali Piracy." *British Journal of Criminology* 54(5): 741–64.
- Skaperdas, Stergios. 2001. "The Political Economy of Organized Crime: Providing Protection When the State Does Not." *Economics of Governance* 2(3): 173–202.
- Steenkamp, Chrissie. 2005. "The Legacy of War: Conceptualizing a 'Culture of Violence' to Explain Violence after Peace Accords." *The Round Table: The Commonwealth Journal of International Affairs* 94(379): 253–67.
- Sundberg, Ralph, and Erik Melander. 2013. "Introducing the UCDP Georeferenced Event Dataset." *Journal of Peace Research* 50(4): 523–32.

- Themnér, Anders. 2015. "Former Military Networks and the Micro-Politics of Violence and State-Building in Liberia" *Comparative Politics* 47(33): 334–53.
- United Nations. 2013. *Global Study on Homicide 2013: Trends, Contexts, Data*. [https://www.unodc.org/documents/data-and-analysis/statistics/GSH2013/2014\\_GLOBAL\\_HOMICIDE\\_BOOK\\_web.pdf](https://www.unodc.org/documents/data-and-analysis/statistics/GSH2013/2014_GLOBAL_HOMICIDE_BOOK_web.pdf).
- United Nations. 2014. *Operational Guide to the Integrated Disarmament, Demobilization and Reintegration Standards*. <https://www.unddr.org/uploads/documents/Operational%20Guide.pdf>.
- United Nations. 2015. *Report of the High-Level Independent Panel on Peace Operations on Uniting Our Strengths for Peace: Politics, Partnership and People*. <http://www.globalr2p.org/media/files/n1518145.pdf>.
- United Nations Statistical Division. 2003. *Manual for the Development of a System of Criminal Justice Statistics*. United Nations.
- World Bank. 2011. *World Development Report: Conflict, Security and Development*. [http://siteresources.worldbank.org/INTWDRS/Resources/WDR2011\\_Overview.pdf](http://siteresources.worldbank.org/INTWDRS/Resources/WDR2011_Overview.pdf).

## Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

- A1:** Descriptive Statistics
  - A2:** List of Countries in Cross-National Sample by PK Mission
  - A3:** Subnational Presence of UN Peacekeepers in South Sudan
  - A4:** Correlation between Homicides and Battle Deaths
  - A5:** Threshold Effects of Battle Deaths on Homicides
  - A6:** Organized Crime and Peacekeeping
  - A7:** Falsification Test
  - A8:** Aggregating by 3-Year Period
  - A9:** Models with Additional Controls
  - A10:** Validating Reported Crimes in South Sudan
  - A11:** Selection Bias and Peacekeeping in South Sudan
- Supporting Information