Beber, Bernd

Working Paper

Do peacekeepers contain conflict? Insights from spatially disaggregated data

Ruhr Economic Papers, No. 931

Provided in Cooperation with:
RWI – Leibniz-Institut für Wirtschaftsforschung, Essen

Suggested Citation: Beber, Bernd (2021) : Do peacekeepers contain conflict? Insights from spatially disaggregated data, Ruhr Economic Papers, No. 931, ISBN 978-3-96973-090-4, RWI - Leibniz-Institut für Wirtschaftsforschung, Essen, https://doi.org/10.4419/96973090

This Version is available at:
https://hdl.handle.net/10419/248744

RUHR
ECONOMIC PAPERS

Bernd Beber

Do Peacekeepers Contain Conflict? Insights from Spatially Disaggregated Data

RWI #931

Imprint

Ruhr Economic Papers

Published by

RWI – Leibniz-Institut für Wirtschaftsforschung
Hohenzollernstr. 1-3, 45128 Essen, Germany

Ruhr-Universität Bochum (RUB), Department of Economics
Universitätsstr. 150, 44801 Bochum, Germany

Technische Universität Dortmund, Department of Economic and Social Sciences
Vogelpothsweg 87, 44227 Dortmund, Germany

Universität Duisburg-Essen, Department of Economics
Universitätsstr. 12, 45117 Essen, Germany

Editors

Prof. Dr. Thomas K. Bauer
RUB, Department of Economics, Empirical Economics
Phone: +49 (0) 234/3 22 83 41, e-mail: thomas.bauer@rub.de

Prof. Dr. Wolfgang Leininger
Technische Universität Dortmund, Department of Economic and Social Sciences
Economics – Microeconomics
Phone: +49 (0) 231/7 55-3297, e-mail: W.Leininger@tu-dortmund.de

Prof. Dr. Volker Clausen
University of Duisburg-Essen, Department of Economics
International Economics
Phone: +49 (0) 201/1 83-3655, e-mail: vclausen@vwl.uni-due.de

Prof. Dr. Ronald Bachmann, Prof. Dr. Manuel Frondel, Prof. Dr. Torsten Schmidt, Prof. Dr. Ansgar Wübker
RWI, Phone: +49 (0) 201/81 49-213, e-mail: presse@rwi-essen.de

Editorial Office

Sabine Weiler
RWI, Phone: +49 (0) 201/81 49-213, e-mail: sabine.weiler@rwi-essen.de

Ruhr Economic Papers #931

Responsible Editor: Manuel Frondel

ISSN 1864-4872 (online) – ISBN 978-3-96973-090-4

Ruhr Economic Papers #931

Bernd Beber

Do Peacekeepers Contain Conflict? Insights from Spatially Disaggregated Data

rwi

Bibliografische Informationen der Deutschen Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available on the Internet at **http://dnb.dnb.de**

RWI is funded by the Federal Government and the federal state of North Rhine-Westphalia.

http://dx.doi.org/10.4419/96973090
ISSN 1864-4872 (online)
ISBN 978-3-96973-090-4

Bernd Beber[1]

Do Peacekeepers Contain Conflict? Insights from Spatially Disaggregated Data

Abstract

Mission-level data strongly suggests that peacekeeping operations offer a path toward conflict reduction. Recently available spatially disaggregated intra-mission data tells a more complex story. Peacekeepers are deployed, within missions, to where violence strikes, and they can prevent bloodshed, but the evidence for the latter is relatively brittle and contingent. This paper suggests that these findings at different levels of aggregation need not be contradictory, but that they constitute a puzzle that calls for continued efforts to improve and expand access to intra-mission data and a new evaluative approach that investigates a variety of adjustable mission components. I discuss the particular relevance of high-resolution geographic data for analyses of peacekeeping, comprehensively compile recent data collection efforts in this area, summarize their key findings and limitations, and outline a research frontier as it emerges from these datasets.

JEL-Code: C81, D74, D78

Keywords: Peacekeeping operations; armed conflict; conflict containment; geographic spillovers; subnational data; data collection

December 2021

1 Bernd Beber, RWI. – All correspondence to: Bernd Beber, RWI - Büro Berlin, Invalidenstr. 112, 10115 Berlin, Germany, e-mail: bernd.beber@rwi-essen.de

1. Introduction

Much of the quantitative research concerning the effects of peacekeeping missions on violence reduction finds reason to be sanguine. Walter, Howard, and Fortna (2020), in a recent summary, describe an "extraordinary relationship between peacekeeping and peace." "Peacekept" places in or emerging from conflict appear to suffer less violence than those that fail to attract a peacekeeping mission. Researchers, however, have only relatively recently begun to ask whether the same relationship holds locally, within peacekeeping missions, and collected spatially disaggregated data that would permit answers to this question. It turns out that these answers inject a certain sense of complication into the emerging consensus regarding peacekeepers' efficacy. Peacekeeping deployments are directed toward particularly conflictual places—the "hard" cases, in a sense—as is true in cross-national comparisons. But their conflict-reducing effects appear much more circumscribed.

This poses a puzzle: Why would local-level effects differ from mission-wide outcomes? Is it plausible that a mission as a whole can amount to more than the sum of its parts? I argue that this is an important, exciting research agenda, but that progress will require, first, continued efforts to improve and expand access to intra-mission data, and second, a focus on an evaluative analytic approach that tries to assess the different effects of an array of peacekeeping components.

In this paper, I first briefly discuss armed conflicts as location-bound occurrences, and I note that disaggregated spatial data has been used to study a number of aspects of these conflicts. The analysis of peacekeeping missions has lagged somewhat behind, not the least because of a dearth of high-resolution peacekeeping data. I next outline several reasons for why the study of peacekeeping missions in particular stands to benefit from a spatially disaggregated approach, compile a detailed listing of the key data collection efforts that have been undertaken in this area, and present my understanding of key insights that these datasets have generated.

The summary of relevant databases may be of particular interest to those working in this field.[1]

I then turn to challenges that remain, in particular in terms of data availability, and conclude with a set of emergent research priorities and recommendations for both practitioners and academics: First, there is a need for better high-resolution data on both civilian and troop movements as well as other standardized conflict features to match existing peacekeeping location data. Second, the United Nations (UN) as the principal operator of peacekeeping missions should allow qualified researchers to access detailed records for academic analyses, and I discuss ways in which this could be accomplished while maintaining the security and confidentiality of these records. Third, the UN should consider building a modern monitoring and evaluation system for peacekeeping operations, in line with those that exist for many other varieties of international interventions in fragile societies. Finally, the scholarly research agenda should move toward a comparatively evaluative approach. As Walter, Howard, and Fortna (2020) write, the question going forward is not whether peacekeeping "works" globally, but rather which components, approaches, troop configurations, and deployment patterns are most efficacious.

2. The need for disaggregation in peacekeeping research

Armed conflicts are spatially complicated phenomena. Their presence and intensity varies with characteristics of the local geography and population, perhaps leaving civilians in one region targeted but largely unaffected elsewhere. They interact with neighboring localities, as violence in one place might spark violence in another or draw fighters from elsewhere (Buhaug and Gleditsch 2008; Rustad et al. 2011). And these linkages shift over time, as frontlines change and troops move.

High-resolution analyses of these processes have made tremendous leaps in the last few years, as spatially disaggregated conflict data has become available and widely used. This

[1] The paper focuses on operations of the United Nations (UN), the single most important source of peacekeepers, but notes related efforts and data sources when indicated.

trend includes ambitious cross-national efforts such as the Armed Conflict Location & Event Data, ACLED (Raleigh et al. 2010) and the Georeferenced Event Dataset, GED (Sundberg and Melander 2013).[2] It also includes theater-specific compilations such as the U.S. National Counterterrorism Center's Worldwide Incidents Tracking System (WITS).[3] In tandem with the growth of these collections, micro-level theories explaining variation in violence exposure in times of war have also burgeoned (Berman, Shapiro, and Felter 2011; Justino 2009; Kalyvas 2006; Verwimp, Justino, and Brück 2019).

Studies using spatially disaggregated, subnational data have investigated how conflict occurs, endures, or spreads as a function of climactic factors (von Uexkull et al. 2016), poverty (Hegre, Østby, and Raleigh 2009), population concentrations (Raleigh and Hegre 2009), peripherality (Buhaug 2010), road density (Salvi, Williamson, and Draper 2020; Zhukov 2012), cell phone coverage (Pierskalla and Hollenbach 2013), radio signal strength (Yanagizawa-Drott 2014), types of foreign aid expenditures (Karell and Schutte 2018), and battlefield losses (Kibris 2021). The effects of counterinsurgent compensation for wrongfully detained civilians (Blair 2020) have been studied, as have the effects of indiscriminate violence (Lyall 2009; Schutte 2017).

High-resolution quantitative analyses of peacekeeping missions, meanwhile, still remain comparatively sparse. A substantial quantitative literature on peacekeeping has developed over the course of the last two decades or so. This literature has focused primarily, but not exclusively on UN missions—perhaps not surprisingly, given that the UN has been and remains the world's most prolific operator of peacekeeping missions. But until recently, much of its generally optimistic insights have relied almost exclusively on country-year (or sometimes mission-year) data on peacekeepers (Doyle and Sambanis 2000; Fortna 2004; Fortna and Howard

[2] Others include the Event Data on Armed Conflict and Security, EDACS (Chojnacki et al. 2012), and—a predecessor to them all—the Kansas Event Data System, KEDS (Schrodt 2006; Schrodt, Davis, and Weddle 1994).

[3] See e.g. Bove and Gavrilova (2014). Other examples are the Significant Activity (SIGACT) database for Afghanistan (Karell and Schutte 2018) and the Hamlet Evaluation System (HES) and Combat Air Activities File (CACTA) for Vietnam (Kocher, Pepinsky, and Kalyvas 2011).

2008; Gilligan 2008). We have learned from this literature that peacekeeping is indeed associated with prolonged spells of peace—that is, peace kept. But the black box approach that prevailed in statistical studies of peacekeeping until just a few years ago, born of necessity given the paucity of fine-grained data, left many questions frustratingly unanswered: Do peacekeepers actually act to suppress conflict where it is threatening to erupt? How do they contain trouble spots? Where and when do they confront and engage those that threaten violence?

Early work on the effects of peacekeeping across geographic space still used country-year data. For example, Beardsley (2011) documented that peacekeeping can ameliorate the risk of cross-border conflict contagion, and Beardsley and Gleditsch (2015) noted that the geographic range of violent events appears reduced when a (robust) peacekeeping mission is deployed, while themselves indicating that their analysis is limited by the absence of georeferenced peacekeeping details.[4]

Several data collection efforts have improved matters since then, and I will turn to a review and analysis of these relatively recent endeavors in a moment. But, first, why does the study of peacekeeping missions in particular stand to benefit from spatially disaggregated data? I believe there are at least six reasons.

Sparse deployments: Despite their political prominence, most peacekeeping missions amount to no more than a very limited, sparse physical presence across a host country's territory. Take the example of the UN Mission in South Sudan (UNMISS), a country roughly the size of France or Afghanistan. When civil war rocked the country in early 2014, UNMISS had troops stationed in just seventeen locations.[5] Imagining peacekeeping as a diffuse, omnipresent feature in this kind of conflict landscape can be misleading. In reality, most peacekeeping missions are a

[4] Another approach to dealing with this limitation has been to rely on individual-level survey data to construct indicators of peacekeeping exposure (Beber et al. 2017, 2019).

[5] See the UNMISS deployment map from March 2014 available at https://digitallibrary.un.org/record/3843916?ln=en.

punctuated phenomenon—vast stretches of territory dotted with islands of UN activity. Disaggregated data allows us to appreciate this fact analytically and move away from heroically assuming spatially undifferentiated deployments. We need disaggregated data to know where peacekeepers are physically located in relation to trouble spots and whether they are in fact as proximate as casual observers might expect.

Spatial contingencies: High-resolution data on the spatial position of troops allows us not only to see connections to collocated occurrences, but also linkages to conflict and peacekeeping events elsewhere. In fact, an event in one place can have one set of consequences locally and an entirely different and opposite set of consequences elsewhere (Schutte 2017). If peacekeepers do in fact target perpetrators of violence, a strategy of combatant mobility and conflict displacement are natural concerns (Beardsley and Gleditsch 2015). Spatially undifferentiated mission-level data leaves us in the dark concerning such externalities and spillover dynamics.

Modern mandates: Peacekeeping troops continue to be deployed along international borders (Townsen and Reeder 2014), but much more commonly the focus of contemporary peacekeeping missions is on the protection of civilians and the reduction of violence within conflict theaters. In a traditional peacekeeping mission, such as UNFICYP in Cyprus, force is appropriately concentrated along a narrow buffer zone of possible confrontation. The protection of civilians, in contrast, frequently requires flexible and sustained projection of force across large areas. In order to assess the efficacy of such modern comprehensive mandates, we need to know when and where peacekeepers in fact project force as intended.

Theory testing: A classic theoretical narrative underpinning claims of peacekeeper efficacy centers on the UN as a security guarantor, in particular in cases of post-peace agreement missions. Parties to a conflict may be unable to credibly commit by themselves to implement their part of a bargain, so international peacekeepers are deployed to ensure that settlement violations are punished, which in turn makes it possible that the settlement gets signed in the first place. But this popular explanation implies that peacekeepers would in fact act to stop

conflict from recurring. Anecdotally, it is not clear that they do. Activists and journalists frequently lament the inconsistent or lackluster responsiveness of UN troops. In order to speak to this issue more systematically and comprehensively, we need disaggregated peacekeeping deployment data.[6]

Knowledge accumulation: The dearth of high-resolution, high-velocity data has meant that the question of how UN peacekeeping missions actually operate on the ground has often been overlooked by quantitative researchers. Qualitative researchers and policy practitioners, meanwhile, have long written about the inner workings of peacekeeping missions. A bifurcated scholarly discourse has been the result, with a distinct gap in terms of typical assessments of efficacy. Highly critical qualitative case studies stand in contrast to a body of quantitative literature that presents peacekeeping deployments in a mostly positive, if not downright exuberant light.[7] The differences in scope and level of observation have made it difficult to accumulate knowledge across methodological approaches, and fine-grained quantitative data will perhaps help resolve some of the discrepancies in how quantitative and qualitative researchers understand peacekeeping.

Practitioner support: While high-level policy debates and mandated objectives are often articulated at the country level, practitioners are well aware that missions vary tremendously within a given context. From their perspective, disaggregated data may be particularly helpful for the purposes of predictive analysis (Duursma and Karlsrud 2019). But aside from this, academic analyses that reflect within-mission variation are likely relatively more useful to a broader set of practitioners than broad-brush, country-level summary results. Practitioners would in this sense also benefit from peacekeeping scholars' access to disaggregated data.

[6] For a discussion of whether peacekeeping effects hold up at the ground level, and how they may or may not aggregate from the bottom up, see Autesserre (2014).

[7] Dorussen (2014) also notes this discrepancy, and Walter, Howard, and Fortna (2020) have a helpful summary of this debate. Examples of critical case studies include Autesserre (2010) with respect to the Democratic Republic of the Congo (DRC), Müller and Bashar (2017) concerning the African Union-UN Hybrid Operation in Darfur (UNAMID), and Day et al. (2019) concerning the UN Mission in South Sudan (UNMISS).

3. Spatially disaggregated data collections

As the need for spatially disaggregated peacekeeping data became apparent over the last decade or so, several data collection projects were launched.[8] Table 1 summarizes five important initiatives, which produced the Peacekeeping Location Event (PKOLED) and Peacekeeping Operations Deployment (PKODEP) datasets, the Geocoded Peacekeeping Operations (Geo-PKO) dataset, the Robust Africa Deployments of Peacekeeping Operations (RADPKO) dataset, and Joint Mission Analysis Centre (JMAC) data.[9]

This list features data sources that have been used in quantitative, academic work. This is why JMAC data is included here, but other internal UN resources that are available to some or all peacekeeping missions are not. Duursma (2021) provides a helpful recent summary of these resources.

All of these data sources rely on UN reporting in one form or another. PKOLED, the first of these efforts, coded and georeferenced named locations that appear in the texts of the UN Secretary-General's reports on peacekeeping missions. This is a time-consuming process and prone to challenges associated with coder reliability, notwithstanding recent developments in automated text analysis that could offer solutions (Amicarelli and Di Salvatore 2021). It also yields data of varying precision, depending on the level of the administrative unit used to describe any particular incident.

This led the PKOLED investigators and others to focus on UN-generated maps of mission-specific peacekeeping deployments. These maps provide information for an entire mission, as

[8] Temporal disaggregation of mission-year peacekeeping data preceded spatial disaggregation. Hultman, Kathman, and Shannon (2013) and Hultman, Kathman, and Shannon (2014) used monthly deployment information to link peacekeeping missions to decreases civilian casualties and battlefield fatalities, respectively. Ruggeri, Gizelis, and Dorussen (2011) and Dorussen and Gizelis (2013) present quantitative analyses of event data, without reference to specific georeferenced locations.

[9] Peitz and Reisch (2019) separately coded deployment maps for UN activities in the DRC, as did Phayal (2019) for UNAMID. Levin (2015) also coded a georeferenced dataset of subnational peacekeeping deployments in eight African post-Cold War conflicts.

opposed to describing one deployment event at a time; contain details concerning the locations of bases, types of units, and nationalities present at a base; and follow a common template that has been relatively stable for decades.

Table 1: Notable data collections

Name	Data source	Coverage	Data publicly available	Reference
Peacekeeping Location Event Data (PKOLED)	Event descriptions in UN Secretary-General (SG) reports	Post-Cold War UN peacekeeping missions, primarily in Africa	No[10]	Dorussen and Ruggeri (2017)
Peacekeeping Operations Deployment Data (PKODEP)	Deployment maps from SG reports, plus force contribution data	Major UN peacekeeping missions in Sub-Saharan Africa, 1991-2006[11]	Yes[12]	Ruggeri, Dorussen, and Gizelis (2017, 2018)
Geocoded Peacekeeping Operations (Geo-PKO)	Digitally published UN deployment maps	All UN peacekeeping missions, 1994-2020	Yes[13]	Cil et al. (2020)
Robust Africa Deployments of Peacekeeping Operations (RADPKO)	Deployment maps from mission reports to SG, plus monthly force contribution data from DPO	All sub-Saharan Chapter VII UN deployments, 1999-2018	Yes[14]	Hunnicutt and Nomikos (2020b)
Joint Mission Analysis Centre (JMAC) data	UN-native field mission information	Principally all UN peacekeeping missions since 2006	No, proprietary UN intelligence	Duursma and Read (2017) use data from Darfur, 2008-09[15]

[10] PKOLED data for the United Nations Protection Force (UNPROFOR) in Bosnia, 1992-1995, is publicly available as part of the replication files for Costalli (2014) at http://dx.doi.org/doi:10.1017/S0007123412000634. PKOLED data was also used e.g. in Powers, Reeder, and Townsen (2015), and Townsen and Reeder (2014), without publicly available replication files.

[11] Ruggeri, Dorussen, and Gizelis (2017, 2018) note that coverage extends to 1989. The publicly available data extends to 1991.

[12] The dataset is available at https://www.aruggeri.eu/data.

[13] An interactive dashboard and the data are available at https://geopko.shinyapps.io/GeoPKODashboard.

[14] The dataset is available at https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/BQU5VD (Hunnicutt and Nomikos 2020a)

[15] See also Duursma and Karlsrud (2019) for a discussion of the JMAC data, including a set of event descriptions.

Maps underpin the data collections for PKODEP, Geo-PKO, and RADPKO, but even so there are differences across these datasets. Fjelde, Hultman, and Nilsson (2019) note a correlation of 0.85 between their coding and the one by Ruggeri, Dorussen, and Gizelis (2017) for overlapping cases. Aside from variation in coverage, the maps themselves are subject to some interpretation: The UN only publishes map images, with troop strength and locations indicated symbolically and approximately. And research teams differ in how they employ auxiliary data to improve accuracy and precision. In particular, both PKODEP and RADPKO cross-check data against monthly mission-level deployment reports, and the latter uses them to construct additional variables (e.g. gender composition) and interpolate data when maps are irregular.

The UN maintains a more complete record of deployment than is shown on sporadically published mission maps, or at least it has in more recent years with the advent of Joint Mission Analysis Centers (JMAC) located in New York and at mission headquarters. However, this data is not usually available to researchers, and unfortunately Duursma's and Read's (2017) use of it in the case of UNAMID may well remain an exception.

4. Insights on deployment patterns and peacekeeper efficacy

What have we learned from these relatively recent improvements in intra-mission peacekeeping data? Recall that the general consensus of the quantitative literature, primarily based on mission-level data, is that peacekeeping works—it diminishes violence and prolongs spells of peace. The evidence emerging from analyses of fine-grained spatial data, however, paints a somewhat more complicated picture.

Let’s take two sets of empirical questions in turn. First, where do peacekeepers go? Are peacekeeping units in fact deployed to where violence strikes? Second, once in place, do peacekeepers prevent or reduce future bloodshed?

Most research agrees at least to some extent that UN peacekeeping missions sent personnel to areas that have experienced violence. They are, in this important sense, mandate-compliant. In their analysis of PKODEP data, Ruggeri, Dorussen, and Gizelis (2018) find that peacekeepers tend to be deployed to conflict sites, although long delays are common. Using yearly

grid data, they find a typical two-year gap until deployments have been significantly effectuated. They also find that a "logic of convenience" can constrain deployment decisions, as troops are more likely to be deployed to accessible areas. Similarly, Fjelde, Hultman, and Nilsson (2019) find—in their analysis of data that would later be released as part of the Geo-PKO dataset—that peacekeepers respond to instances of violence against civilians, in particular if committed by rebel forces. Battle intensity does not predict peacekeeping deployments in their analysis. They also see delays, but note that deployments tend to increase in the space of six months after instances of one-sided violence. Finally, Hunnicutt and Nomikos (2020b) report, on the basis of their RADPKO data, that peacekeepers go where violence has occurred. They indicate that the UN can be highly responsive, but in their illustrative case the violence that the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) is quickly acting to tamp down is violence against MINUSMA peacekeepers themselves.

Country-specific studies largely concur. Costalli (2014) uses PKOLED data for Bosnia to argue that peacekeepers deployed to areas that had experienced particularly severe violence. Townsen and Reeder (2014) observe similar patterns in PKOLED data for the UN Mission in the DRC (MONUC), 1999-2005, with UN troops deployed to sites of one-sided violence and government-rebel clashes (while steering clear of rebel groups fighting one another). Powers, Reeder, and Townsen (2015) term this deployment strategy "hot spot peacekeeping" and find some evidence for it using PKOLED data from the DRC (2000-05), Angola (1995-98), Ivory Coast (2003-05), and Sierra Leone (1998-2001). Their results point toward some heterogeneity in mission-level deployment decisions, as conflict intensity is sometimes positively and more infrequently negatively associated with peacekeeping deployments. Still, the weight of the evidence indicates that peacekeepers go where they must and are mandated to go.

The evidence concerning the local-level security-improving effects of peacekeeping deployments is much more mixed, by comparison. Ruggeri, Dorussen, and Gizelis (2017) find no clear effect on the onset of local violence using the PKODEP data, but suggest that deployments shorten the duration of conflict episodes. Cil et al. (2020), using Geo-PKO data for all UN peacekeeping missions in Africa, 1994-2014, see no first-order association between a lagged

troop presence and battle deaths, but a conditional reduction of battlefield violence where roads are dense. Concerning civilian deaths, Fjelde, Hultman, and Nilsson (2019), using data for missions in Africa with civilian protection mandates in the years 2000-2011, find that local peacekeeping contingents can protect civilians against rebels, but not government forces. Hunnicutt and Nomikos (2020b), with their RADPKO dataset, replicate the negative association between peacekeeping deployments and rebel violence in the relevant subset of cases, but find that the result either "washes out or is reversed when we use the entire sample of missions"—while a UN presence is positively correlated with government forces beginning to commit atrocities against civilians.

Perhaps these ambiguous results simply reflect a considerable amount of effect heterogeneity. While Peitz and Reisch (2019) find violence-reducing effects in the DRC, Costalli (2014) does not in Bosnia, and neither do Mvukiyehe and Samii (2020) for the UN Mission in Liberia (UNMIL). Phayal (2019) finds that the presence, but not the capacity of UN troops correlates with a reduction in civilian fatalities in Darfur. Meanwhile, Peitz and Reisch (2019) note that deployments with helicopters, airplanes or marine units tend to outperform infantry units in the DRC. There may also be heterogeneity in the effects of UN compared to non-UN missions, which are studied far less frequently, with the analysis of the African Union (AU) effort in Somalia by Elfversson, Lindberg Bromley, and Williams (2019) an exception.

How one reads these results might also depend on the view one takes on issues of selection and endogeneity that affect all of these analyses. Can we reasonably attribute the absence of violence-reducing effects to selection bias, or should we rather be wary of any evidence in favor of such effects? A popular argument, articulated e.g. by Fjelde, Hultman, and Nilsson (2019), contends that the apparent fact that peacekeepers are deployed to violent areas should, if anything, bias researchers *against* any finding of peacekeeper efficacy. It is easy to see why this is an attractive argument, but it makes an assumption that usually is not fully recognized, namely that violence will persist locally, all other things being equal. This may not be a well-founded assumption for internal wars, where attacks and clashes often move from one place to another (and violent areas can see mean reversion). If a flare-up of violence is

just that—a surge followed by subsidence—then a deployment of peacekeepers some months later will induce a misleadingly optimistic correlation between their presence and an absence of violence. That is, deployment dynamics could bias researchers *toward* a finding of peacekeeper efficacy. Given the lead times involved in relocating peacekeeping units, especially if a base needs to be newly set up as opposed to expanded, deployments do not necessarily target "hard cases" in the present, but cases that *were* hard.

This is not as much of an issue for the equivalent argument concerning the mission-level record of peacekeeping activity (Fortna 2004), because conflicts are not as spatially mobile across international borders. The Sudanese civil war, say, would not have suddenly disappeared in Sudan and reconstituted itself anew in Ethiopia. Internationalization is of course a common feature of civil wars, but generally not in the sense of a conflict being entirely displaced across borders. By contrast, fronts shift easily within armed conflicts, especially in modern insurgencies where "frontlines" are often diffuse to begin with. In this case, what looks like peacekeepers having a violence-abating impact may in reality be a deployment that puts boots on the ground once violence has already moved elsewhere. This dislocation of violence could be a strategic response to a looming peacekeeper deployment on the part of combatants—Peitz and Reisch (2019) describe such a process of conflict displacement using data from the eastern DRC for 2000-2014—but it could also simply reflect non-strategic mean reversion.

This is not to say that conflict displacement is necessarily more common than peacekeeping-induced containment. A reading of Beardsley and Gleditsch (2015) or Ruggeri, Dorussen, and Gizelis (2017) could suggest the opposite. But one important task for future research on subnational peacekeeping deployments will be to better understand these dynamics of conflict spillovers. Much of the relevant literature does not explicitly identify spillover effects, notwithstanding exceptions such as Peitz and Reisch (2019) and Duursma and Read (2017). Currently researchers commonly analyze high-resolution spatial data by aggregating up either within political-administrative units or within grid cells. Alternative analytical approaches over continuous space as in Kelling and Lin (2020) are rare. The grid-based approach dominates—and how grid cells relate to one another is often left entirely unstructured. As spatial data, e.g.

fine-grained information on road networks or physical obstacles such as swamps and mountains, and our ability to use it continues to improves, we should have a better sense of how conflict can be displaced, how peacekeeping missions can project power, and why some missions appear to have positive effects while others do not.[16]

Finally, note that an absence of a violence-reducing effect at the intra-mission level need not necessarily imply that peacekeeping missions as a whole are ineffective (Levin 2015). Even if a local peacekeeping presence does not appear to reduce violence compared to other areas, this can be entirely consistent with the larger peacekeeping mission as a whole improving the security situation for everyone—or at least leading to a better security situation than the country would face in the counterfactual scenario lacking a peacekeeping missions. It is not clear that mission-level success can and should in fact be simply understood as the sum of local-level incidents and effects, and at this point we only have a limited understanding of how micro-level developments link up to shape macro-level outcomes in this arena (Autesserre 2014).

5. Persistent data limitations

A fundamental challenge of the existing spatial data collections—as impressive and laudable as they are—is that they rely on UN deployment maps. Maps are published at best on a monthly basis, but more typically quarterly, with many quarters or longer stretches of time lacking maps. Maps for two consecutive months are rare. As Hunnicutt and Nomikos (2020b) note, maps are not missing at random. They tend to be available with greater frequency at the beginning and the end of missions. It is not even clear if a month without a digitally available map can be properly characterized as a month for which a map is "missing," because we do not know if a map was ever generated for that particular mission-month—the UN does not provide a list of all maps that were at some point generated, whether for public release or otherwise. The fact that the raw map data is so sparse means that, first, we can still not be entirely certain about how many peacekeepers have been stationed where, most of the time.

[16] See Beck, Gleditsch, and Beardsley (2006), and also note their more technical point that autoregressive spatial models tend to outperform models with spatially lagged errors.

Second, analyses can become sensitive to how the data is interpolated—if there is a change between deployment maps, it is not clear when exactly and how gradually or quickly the change took place.

Another well-known issue with UN deployment maps is that they generally show mission-assigned, not actual deployment levels. Missions are commonly understaffed, especially after their initial Security Council authorization and after any subsequent mandate expansions. This means that a battalion that is symbolically indicated as such on a deployment map may not in fact be operating at this level of strength. PKODEP and in particular RADPKO attempt to fix this issue by also using mission-level contributing country deployment totals, but their corrections can only be approximate.

Deployment maps also lack information about patrols or other activities that allow peacekeepers to project force across populations and territories. Patrols are a key component of missions, as they try to prevent violence through deterrence, physically disrupt threats to civilians, respond to protection-related incidents, or enforce ceasefires and other local and national agreements. Maps that offer snapshots of base locations and their associated troop strength cannot capture these activities and the relationships with local actors that they imply. As Dorussen and Ruggeri (2017) point out in Clayton et al. (2017), we could easily expect a peacekeeping presence to have heterogeneous effects depending on the type and quality of these interactions—but we will not able to explore these questions using data based on deployment maps alone.

This raises the question what kind of data could help answer these questions, and at what level of granularity we might be able to obtain such data. But it raises an even more fundamental question: At what level of detail does the UN, or more specifically the Department of Peace Operations (DPO) or the Department of Political and Peacebuilding Affairs (DPPA) at UN headquarters, possess this data, and for which historical and contemporary missions (Bosco 2017)?

Geolocated daily base deployment figures likely do exist, also for a substantial portion of the historical record, although this is not publicly known and these records are in any case not likely to be standardized or maintained with an eye towards analysis across missions and time. The situation concerning patrols and other off-base activities is surely worse. The fragmentary orders upon which patrols are actually carried out are generally supposed to be archived, but historically no cross-mission retention scheme has been in place for them. Patrol totals are regularly reported by missions, but detailed information about patrols is often inconsistently or selectively recorded—precisely because they form such a central mission output, and troop-contributing countries face strong incentives to report patrol activities that are just as mandated. While incidents are often reported with geographic coordinates, routine patrols are not, and political challenges and sensitivities surround them as they do other geospatial UN data (Convergne and Snyder 2015).

While room for improvement surely remains, the UN has made substantial progress with respect to its data collection practices in peacekeeping operations in general and geospatial data retention and analysis in particular (Duursma 2021). Joint Operations Centers (JOC) and Joint Mission Analysis Centers (JMAC) were first initiated by the UN Department of Peacekeeping Operations (DPKO) in 2005, and now play a central role in systematic information acquisition and analysis (Duursma 2017), and the Situational Awareness Geospatial Enterprise (SAGE) database was introduced as a way to log incidents and actions, replacing daily situation reports. The rollout of SAGE has not been without problems: Data collection is not automated, remains focused on events and incidents, and imposes additional entry burdens on missions, which was arguably a reason why its UNMISS launch initially failed (Laurence 2019). Still, it has the potential to be transformative as it centralizes and standardizes data capture for peacekeeping operations, but remains out of reach for academic researchers.

For non-UN missions, data collection and availability vary, but are not generally any better. The SIPRI Multilateral Peace Operations Database, for example, which is the largest database of non-UN peacekeeping missions, does not include any detailed spatial data (van der Lijn and Smit 2017). Troop-contributing countries often maintain separate, confidential records of

their activities, with the level of detail commensurate with their capacity, but these also are usually inaccessible to scholars.

6. Conclusion

Where does this leave scholars of peacekeeping? Commendable strides have been made in terms of the spatially disaggregated data that has been collected by several teams of researchers. We know that peacekeepers tend to go where violence has occurred, and that they can help prevent further suffering—at least sometimes. Yet much remains unknown: Geolocated strength figures for most mission days, information on when exactly and how quickly site-specific deployments change, details for patrols and other force projection activities, and how all of this affects the strategic interplay between combatants, civilians, and peacekeeping troops.

I will conclude with four forward-looking remarks. First, in the absence of additional UN data releases, it seems at this stage difficult to imagine any comprehensive data collection effort that will substantially improve our knowledge of peacekeeping deployment sites, as it stands given available maps. But there does seem room for data collections around these missions, or efforts to carefully link additional existing data that describe features of the conflict landscape as it responds to the presence of peacekeepers. For example, civilians are rarely appreciated as strategic actors in empirical analyses of peacekeepers' effects on them, but they can choose to gather around deployment sites to seek protection, avoid such sites if they fear becoming a target, and in general condition their movements on their expectations in the context of a peacekeeping mission (Sundberg 2020). Better, high-resolution data on such movements, or corridors for combatant troop movements, or other standardized facets of the conflict setting could in turn broaden what researchers can accomplish with available peacekeeping location data.

Second, as the UN improves its processes by which it gathers information about peacekeeping operations, it should allow qualified non-UN researchers to access at least a subset of this data. This need not entail releasing e.g. SAGE data publicly. UN DPO could for example provide

access to a secure, freestanding system at headquarters, where researchers would be able to run their statistical models; or the department could publish a description of the data structure, allow researchers to submit analysis code, run the code for researchers, and return the output only. This is a common procedure that permits researchers to work e.g. on personally identifiable sensitive employment data, and it seems sensitive mission data could be protected in the same fashion. Returned outputs could in fact be mission-neutral, i.e. only results based on multiple missions could be returned.

Third, UN peacekeeping operations should consider building modern monitoring and evaluation systems, and draw on the expertise of outside researchers when designing impact evaluations (Gorur 2019). The fact that quantitative analyses across missions largely agree that UN peacekeeping can reduce conflict, while the intra-mission correlation between deployments and diminished violence is far from clear, only goes to show that the story of peacekeeping efficacy is perhaps not as straightforwardly told as one might have thought. There is still much to be learned about what exactly makes a mission a success, both locally and at the mission level.

Fourth, by the same reasoning, the academic research agenda should move toward being comparatively evaluative, as recently suggested by Walter, Howard, and Fortna (2020). What exactly makes peacekeeping "work"? Which type of units, with what kind of personnel, employing which practices where, in response to what contextual factors, have the highest likelihood of reducing violence?[17] These kinds of questions ought to inspire many more years of vibrant peacekeeping research and disaggregated geolocated data should be one its central elements.

[17] See Blattman et al. (forthcoming) for an example of evaluative work in an extraordinarily challenging, violence-prone setting.

References

Amicarelli, Elio, and Jessica Di Salvatore. 2021. "Introducing the PeaceKeeping Operations Corpus (PKOC)." *Journal of Peace Research*: 002234332097869.

Autesserre, Séverine. 2010. *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding*. Cambridge: Cambridge University Press. http://ebooks.cambridge.org/ref/id/CBO9780511761034 (March 7, 2021).

———. 2014. "Going Micro: Emerging and Future Peacekeeping Research." *International Peacekeeping* 21(4): 492–500.

Beardsley, Kyle. 2011. "Peacekeeping and the Contagion of Armed Conflict." *The Journal of Politics* 73(4): 1051–64.

Beardsley, Kyle, and Kristian Skrede Gleditsch. 2015. "Peacekeeping as Conflict Containment." *International Studies Review* 17(1): 67–89.

Beber, Bernd, Michael J. Gilligan, Jenny Guardado, and Sabrina Karim. 2017. "Peacekeeping, Compliance with International Norms, and Transactional Sex in Monrovia, Liberia." *International Organization* 71(1): 1–30.

Beber, Bernd, Michael J Gilligan, Jenny Guardado, and Sabrina Karim. 2019. "The Promise and Peril of Peacekeeping Economies." *International Studies Quarterly* 63(2): 364–79.

Beck, Nathaniel, Kristian Skrede Gleditsch, and Kyle Beardsley. 2006. "Space Is More than Geography: Using Spatial Econometrics in the Study of Political Economy." *International Studies Quarterly* 50(1): 27–44.

Berman, Eli, Jacob N Shapiro, and Joseph H Felter. 2011. "Can Hearts and Minds Be Bought? The Economics of Counterinsurgency in Iraq." *Journal of Political Economy* 119(4): 766–819.

Blair, Christopher. 2020. "Restitution or Retribution? Detainee Payments and Insurgent Violence." *SSRN Electronic Journal*. https://www.ssrn.com/abstract=3613437 (March 7, 2021).

Blattman, Christopher, Donald Green, Santiago Tobón, and Daniel Ortega. forthcoming. "Place-Based Interventions at Scale: The Direct and Spillover Effects of Policing and City Services on Crime." *Journal of the European Economic Association*.

Bosco, L. 2017. "UN Peacekeeping Data." *International Peacekeeping* 24(1): 44–54.

Bove, Vincenzo, and Evelina Gavrilova. 2014. "Income and Livelihoods in the War in Afghanistan." *World Development* 60: 113–31.

Buhaug, Halvard. 2010. "Dude, Where's My Conflict? LSG, Relative Strength, and the Location of Civil War." *Conflict Management and Peace Science* 27(2): 107–28.

Buhaug, Halvard, and Kristian Skrede Gleditsch. 2008. "Contagion or Confusion? Why Conflicts Cluster in Space." *International Studies Quarterly* 52(2): 215–33.

Chojnacki, Sven, Christian Ickler, Michael Spies, and John Wiesel. 2012. "Event Data on Armed Conflict and Security: New Perspectives, Old Challenges, and Some Solutions." *International Interactions* 38(4): 382–401.

Cil, Deniz, Hanne Fjelde, Lisa Hultman, and Desirée Nilsson. 2020. "Mapping Blue Helmets: Introducing the Geocoded Peacekeeping Operations (Geo-PKO) Dataset." *Journal of Peace Research* 57(2): 360–70.

Clayton, G. et al. 2017. "The Known Knowns and Known Unknowns of Peacekeeping Data." *International Peacekeeping* 24(1): 1–62.

Convergne, Elodie, and Michael R. Snyder. 2015. "Making Maps to Make Peace: Geospatial Technology as a Tool for UN Peacekeeping." *International Peacekeeping* 22(5): 565–86.

Costalli, Stefano. 2014. "Does Peacekeeping Work? A Disaggregated Analysis of Deployment and Violence Reduction in the Bosnian War." *British Journal of Political Science* 44(2): 357–80.

Day, Adam, Charles T Hunt, He Yin, and Liezelle Kumalo. 2019. *Assessing the Effectiveness of the United Nations Mission in South Sudan (UNMISS)*. Norwegian Institute of International Affairs.

Dorussen, Han. 2014. "Peacekeeping Works, or Does It?" *Peace Economics, Peace Science and Public Policy* 20(4): 527–37.

Dorussen, Han, and Theodora-Ismene Gizelis. 2013. "Into the Lion's Den: Local Responses to UN Peacekeeping." *Journal of Peace Research* 50(6): 691–706.

Dorussen, Han, and Andrea Ruggeri. 2017. "Peacekeeping Event Data: Determining the Place and Space of Peacekeeping." *International Peacekeeping* 24(1): 32–38.

Doyle, Michael W., and Nicholas Sambanis. 2000. "International Peacebuilding: A Theoretical and Quantitative Analysis." *The American Political Science Review* 94(4): 779–801.

Duursma, Allard. 2017. "Counting Deaths While Keeping Peace: An Assessment of the JMAC's Field Information and Analysis Capacity in Darfur." *International Peacekeeping* 24(5): 823–47.

———. 2021. "Mapping Data-Driven Tools and Systems for Early Warning, Situational Awareness, and Early Action." *PAX Protection Series 2021/01*.

Duursma, Allard, and John Karlsrud. 2019. "Predictive Peacekeeping: Strengthening Predictive Analysis in UN Peace Operations." *Stability: International Journal of Security and Development* 8(1): 1–19.

Duursma, Allard, and Róisín Read. 2017. "Modelling Violence as Disease? Exploring the Possibilities of Epidemiological Analysis for Peacekeeping Data in Darfur." *International Peacekeeping* 24(5): 733–55.

Elfversson, Emma, Sara Lindberg Bromley, and Paul D. Williams. 2019. “Urban Peacekeeping under Siege: Attacks on African Union Peacekeepers in Mogadishu, 2007–2009.” *Third World Thematics: A TWQ Journal* 4(2–3): 158–78.

Fjelde, Hanne, Lisa Hultman, and Desirée Nilsson. 2019. “Protection Through Presence: UN Peacekeeping and the Costs of Targeting Civilians.” *International Organization* 73(1): 103–31.

Fortna, Virginia Page. 2004. “Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace after Civil War.” *International Studies Quarterly* 48(2): 269–92.

Fortna, Virginia Page, and Lise Morjé Howard. 2008. “Pitfalls and Prospects in the Peacekeeping Literature.” *Annual Review of Political Science* 11(1): 283–301.

Gilligan, Michael J. 2008. “Do UN Interventions Cause Peace? Using Matching to Improve Causal Inference.” *Quarterly Journal of Political Science* 3(2): 89–122.

Gorur, Aditi. 2019. “The Need for Monitoring and Evaluation in Advancing Protection of Civilians.” *IPI Global Observatory*.

Hegre, Håvard, Gudrun Østby, and Clionadh Raleigh. 2009. “Poverty and Civil War Events: A Disaggregated Study of Liberia.” *Journal of Conflict Resolution* 53(4): 598–623.

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.

———. 2014. “Beyond Keeping Peace: United Nations Effectiveness in the Midst of Fighting.” *American Political Science Review* 108(4): 737–53.

Hunnicutt, Patrick, and William Nomikos. 2020a. *RADPKO: The Robust Africa Deployments of Peacekeeping Operations Dataset*. Harvard Dataverse.

Hunnicutt, Patrick, and William G. Nomikos. 2020b. “Nationality, Gender, and Deployments at the Local Level: Introducing the RADPKO Dataset.” *International Peacekeeping* 27(4): 645–72.

Justino, Patricia. 2009. “Poverty and Violent Conflict: A Micro-Level Perspective on the Causes and Duration of Warfare.” *Journal of Peace Research* 46(3): 315–33.

Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press. http://ebooks.cambridge.org/ref/id/CBO9780511818462 (March 14, 2021).

Karell, Daniel, and Sebastian Schutte. 2018. “Aid, Exclusion, and the Local Dynamics of Insurgency in Afghanistan.” *Journal of Peace Research* 55(6): 711–25.

Kelling, Claire, and YiJyun Lin. 2020. “Analysis of Conflict Diffusion Over Continuous Space.” In *Computational Conflict Research*, Computational Social Sciences, eds. Emanuel Deutschmann et al. Cham: Springer International Publishing, 201–23. http://link.springer.com/10.1007/978-3-030-29333-8_10 (March 7, 2021).

Kibris, Arzu. 2021. “The Geo-Temporal Evolution of Violence in Civil Conflicts: A Micro Analysis of Conflict Diffusion on a New Event Data Set.” *Journal of Peace Research* 58(5): 885–99.

Kocher, Matthew Adam, Thomas B. Pepinsky, and Stathis N. Kalyvas. 2011. “Aerial Bombing and Counterinsurgency in the Vietnam War.” *American Journal of Political Science* 55(2): 201–18.

Laurence, Marion. 2019. “What Are the Benefits and Pitfalls of ‘Data-Driven’ Peacekeeping?” *Centre for International Policy Studies* Policy Brief No. 35: 10.

Levin, Andrew. 2015. “Peacekeeping Effectiveness in Civil War: National and Sub-National Analyses.” *Ph.D. Dissertation (AAI3709499), University of Pennsylvania*.

Lyall, Jason. 2009. “Does Indiscriminate Violence Incite Insurgent Attacks?: Evidence from Chechnya.” *Journal of Conflict Resolution* 53(3): 331–62.

Müller, Tanja R., and Zuhair Bashar. 2017. “‘UNAMID Is Just Like Clouds in Summer, They Never Rain’: Local Perceptions of Conflict and the Effectiveness of UN Peacekeeping Missions.” *International Peacekeeping* 24(5): 756–79.

Mvukiyehe, Eric, and Cyrus Samii. 2020. “Peacekeeping and Development in Fragile States: Micro-Level Evidence from Liberia.” *Journal of Peace Research*: 002234332091281.

Peitz, Laura, and Gregor Reisch. 2019. “Violence Reduction or Relocation?: Effects of United Nations Troops Presence on Local Levels of Violence.” *Zeitschrift für Friedens- und Konfliktforschung* 8(2): 161–81.

Phayal, Anup. 2019. “UN Troop Deployment and Preventing Violence Against Civilians in Darfur.” *International Interactions* 45(5): 757–80.

Pierskalla, Jan H., and Florian M. Hollenbach. 2013. “Technology and Collective Action: The Effect of Cell Phone Coverage on Political Violence in Africa.” *American Political Science Review* 107(2): 207–24.

Powers, Matthew, Bryce W. Reeder, and Ashly Adam Townsen. 2015. “Hot Spot Peacekeeping.” *International Studies Review* 17(1): 46–66.

Raleigh, Clionadh, and Håvard Hegre. 2009. “Population Size, Concentration, and Civil War. A Geographically Disaggregated Analysis.” *Political Geography* 28(4): 224–38.

Raleigh, Clionadh, Andrew Linke, Håvard Hegre, and Joakim Karlsen. 2010. “Introducing ACLED: An Armed Conflict Location and Event Dataset: Special Data Feature.” *Journal of Peace Research* 47(5): 651–60.

Ruggeri, Andrea, Han Dorussen, and Theodora-Ismene Gizelis. 2017. “Winning the Peace Locally: UN Peacekeeping and Local Conflict.” *International Organization* 71(1): 163–85.

———. 2018. “On the Frontline Every Day? Subnational Deployment of United Nations Peacekeepers.” *British Journal of Political Science* 48(4): 1005–25.

Ruggeri, Andrea, Theodora-Ismene Gizelis, and Han Dorussen. 2011. "Events Data as Bismarck's Sausages? Intercoder Reliability, Coders' Selection, and Data Quality." *International Interactions* 37(3): 340–61.

Rustad, Siri Camilla Aas, Halvard Buhaug, Åshild Falch, and Scott Gates. 2011. "All Conflict Is Local: Modeling Sub-National Variation in Civil Conflict Risk." *Conflict Management and Peace Science* 28(1): 15–40.

Salvi, Andrea, Mark Williamson, and Jessica Draper. 2020. "On the Beaten Path: Violence Against Civilians and Simulated Conflict Along Road Networks." In *Computational Conflict Research*, Computational Social Sciences, eds. Emanuel Deutschmann et al. Cham: Springer International Publishing, 183–99. http://link.springer.com/10.1007/978-3-030-29333-8_9 (March 7, 2021).

Schrodt, Philip A. 2006. "Twenty Years of the Kansas Event Data System Project." *The Political Methodologist* 14(1): 2–6.

Schrodt, Philip A., Shannon G. Davis, and Judith L. Weddle. 1994. "Political Science: KEDS—A Program for the Machine Coding of Event Data." *Social Science Computer Review* 12(4): 561–87.

Schutte, Sebastian. 2017. "Violence and Civilian Loyalties: Evidence from Afghanistan." *Journal of Conflict Resolution* 61(8): 1595–1625.

Sundberg, Ralph. 2020. "UN Peacekeeping and Forced Displacement in South Sudan." *International Peacekeeping* 27(2): 210–37.

Sundberg, Ralph, and Erik Melander. 2013. "Introducing the UCDP Georeferenced Event Dataset." *Journal of Peace Research* 50(4): 523–32.

Townsen, Ashly Adam, and Bryce W. Reeder. 2014. "Where Do Peacekeepers Go When They Go?" *Journal of International Peacekeeping* 18(1–2): 69–91.

von Uexkull, Nina, Mihai Croicu, Hanne Fjelde, and Halvard Buhaug. 2016. "Civil Conflict Sensitivity to Growing-Season Drought." *Proceedings of the National Academy of Sciences* 113(44): 12391–96.

Verwimp, Philip, Patricia Justino, and Tilman Brück. 2019. "The Microeconomics of Violent Conflict." *Journal of Development Economics* 141: 102297.

Walter, Barbara F., Lise Morje Howard, and V. Page Fortna. 2020. "The Extraordinary Relationship between Peacekeeping and Peace." *British Journal of Political Science*: 1–18.

Yanagizawa-Drott, David. 2014. "Propaganda and Conflict: Evidence from the Rwandan Genocide." *The Quarterly Journal of Economics* 129(4): 1947–94.

Zhukov, Yuri M. 2012. "Roads and the Diffusion of Insurgent Violence." *Political Geography* 31(3): 144–56.