

# All About That Base... No Trouble.: the Gravity of Peacekeeping Bases\*

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## Abstract

Do United Nations (UN) peacekeeping bases impact violence? The existing literature on civilian protection from the UN focuses on the peacekeepers themselves, which obscures the effect peacekeeping bases may have on the locales they deploy to. In addition, little research examines peacekeeping bases as potential sources of violence reduction. In this research note, I provide the first empirical evidence that peacekeeping bases change violence outcomes. Peacekeeping bases signal to local actors the presence of the UN, meaning larger bases with a more imposing physical presence should reduce violence against civilians through a greater gravity. With an empirical design utilizing recent advances in difference-in-differences, I explore the effects of peacekeeping bases on state and rebel violence, showing how the largest peacekeeping bases decrease civilian victimization by state actors with few effects on rebel violence. These results highlight the importance of deciding where peacekeeping bases are placed as an additional source of civilian protection.

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# 1 Introduction

What happens locally when peacekeepers are deployed? Historically, peacekeeping research has used country-level measures of peacekeepers. Hultman, Kathman, and Shannon, for example, find that more peacekeeping troops reduce civilian deaths, but that observers may increase fatalities.<sup>1</sup> Subnationally, however, other research finds that peacekeepers deploy to prevent violence,<sup>2</sup> that they may displace violence,<sup>3</sup> and that peacekeepers generally decrease violence when deployed.<sup>4</sup>

The same literature focuses almost exclusively on peacekeepers as the unit of analysis; yet peacekeepers do not exist in a vacuum. While peacekeepers move around a country, they deploy and operate from peacekeeping bases. Although some research has examined the effects of peacekeeping bases, that research looks at “peacekeeping economies” or locals’ security perceptions.<sup>5</sup> This research note contributes to this literature with an in-depth exploration of how peacekeeping bases impact local violence outcomes.

How do peacekeeping bases impact violence? Because peacekeeping bases house peacekeepers and are a symbol of the UN’s presence, they should impact violence in similar ways. The sight of a peacekeeping base, along with the peacekeepers deployed there, informs local actors about the consequences of their actions. I test the geospatial bounds of bases to determine how far their gravity expands and assess their effects on different actors.

To answer this question, I utilize recent innovations in the difference-in-differences literature along with Geocoded Peacekeeping Operations’s (Geo-PKO) panel data on peacekeeping base deployments. By exploiting the selective timing of peacekeeping base deployments, my research design uses not yet treated units (that is, locations without a base at time  $t$ ) as the control group. By meeting the assumptions required for difference-in-differences, such as parallel trends, my models account for unobserved confounders that may otherwise bias

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1. Hultman, J. D. Kathman, and Shannon 2013; Hultman, J. Kathman, and Shannon 2014.

2. Fjelde, Hultman, and Nilsson 2019; Kunkel 2023.

3. Beardsley and Gleditsch 2015; Kunkel et al. 2023.

4. Walter, Howard, and Fortna 2021.

5. Beber et al. 2019; Mvukiyehe and Samii 2021.

the results.<sup>6</sup>

The research note proceeds as follows. First, I review the literature exploring peacekeeper violence prevention and the impacts of peacekeeping bases. Next, I explain how the logic of peacekeepers and violence prevention should extend to bases because of the gravity of the base and its role in reducing local violence. Third, I discuss my data and research design, including explaining why my methodological approach is the most appropriate to answer my research question. Fourth, I show how my models provide moderate evidence for the given hypotheses, followed by an examination of the implications for my findings.

## 2 Previous Literature

Does UN peacekeeping reduce violence? A robust literature shows that, unequivocally, UN peacekeepers reduce violence against civilians, decrease conflict events between combatants, and stabilize countries experiencing civil conflict.<sup>7</sup> While historical peacekeeping research examined the macrogeographic and yearly effects of peacekeepers,<sup>8</sup> a new literature armed with subnational and monthly deployment data of UN deployments shows a robust conclusion of peacekeeping effectiveness at the microlevel as well.<sup>9</sup>

However, in examining these effects, this research focuses on peacekeepers as mediators of violence. Peacekeepers play a crucial role by reporting human rights abuses to the Security Council and, when necessary, employing direct force to protect civilians. However, the emphasis on peacekeepers has obscured the impacts of the bases where they are deployed. Although distinguishing between the effects of peacekeeping bases and the peacekeepers residing within them poses a challenge due to their interdependence, understanding the local effects of these bases is essential. Moreover, because bases lack the same mobility and patrolling characteristics as peacekeepers, studying the bases allows for a more fine-grained

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6. Card and Krueger 1994.

7. Walter, Howard, and Fortna 2021.

8. Diehl, Reifschneider, and Hensel 1996; Greig and Diehl 2005; Hultman, J. D. Kathman, and Shannon 2013.

9. Ruggeri, Dorussen, and Gizelis 2017; Fjelde, Hultman, and Nilsson 2019; Kunkel 2023.

analysis on their effects, which is not possible without comprehensive data on peacekeeping patrols.

Several articles contend that peacekeeping bases affect the areas in which they are deployed. However, these papers typically control for a peacekeeping base in reference to studying the intensity of the conflict or study a violence outcome measured by local perceptions of insecurity. Between those two, Mvukiyehe and Samii propose a novel quasi-experimental method.<sup>10</sup> In their paper, Mvukiyehe and Samii identify the regulations used by the UN to decide where bases are opened during peacekeeping missions. By constructing a set of guidelines and then determining places that were equally likely to receive a base, Mvukiyehe and Samii deal with potential selection effects. Since the treatment of a peacekeeping base was as if randomly selected, there is unlikely to be any unobserved sorting between the treatment and control groups. Mvukiyehe and Samii's research design only explores the effect of the base as a whole and through the lens of security perceptions rather than tangible violence outcomes.

Peitz & Reisch, on the other hand, use peacekeeping bases as a control variable in their examination of the ability of peacekeepers to reduce conflict intensity.<sup>11</sup> Peitz & Reisch's research utilized UN archival sources to determine the force projection capabilities of the peacekeeping base. Even though Peitz & Reisch's research design explores the general effects of peacekeeping bases and conflict intensity, their models are inconclusive as to whether the peacekeeping base reduces overall violence and violence against civilians. My models take a different approach to answer this question, and I leverage longitudinal data for a difference-in-differences design.

A necessary point to make about the literature covering peacekeeping bases is that there is very little conceptualization about what a peacekeeping base is and what it does. The prior literature discusses bases in terms of absolutes and treats them functionally the same. However, as discussed in more detail in later sections, peacekeeping bases are not monoliths.

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10. Mvukiyehe and Samii [2021](#).

11. Peitz and Reisch [2019](#).

There are important distinctions between permanent and temporary operating bases, and the approach of treating bases as functionally the same is likely to obscure the violence impacts of peacekeeping bases.

I contribute to the existing literature on peacekeeping bases with the first large- $N$  analysis on the effects of bases, with a research design utilizing recent advances in difference-in-differences methods. With a novel approach measuring the base instead of the peacekeeper and with the most granular measure of peacekeeping presence possible, I bring peacekeeping bases into the peacekeeping effectiveness literature and provide an in-depth exploration of peacekeeping bases and how they change security outcomes after deployment.

### 3 Bases and Peacekeepers

What are peacekeeping bases? This question is key to understanding two prevailing issues with our knowledge of how peacekeepers operate. First, almost all previous research examining UN peacekeeping focuses on the peacekeepers themselves instead of the bases they operate out of. While it is necessary to know the effect of peacekeeping troops, they do not operate without a staging location; moreover, the existing knowledge on peacekeeping bases shows they impact the areas where they deploy.<sup>12</sup>

Second, the types of peacekeeping bases deployed in host states are nebulous and difficult to define, according to UN regulations. Peacekeeping bases, referred to in UN terminology as Operating Bases, or OBs, are deployed to house UN peacekeepers and often other civilian personnel. An OB is “a military position used as a secure location” where the UN force can provide “support of operational goals and tactical objectives.”<sup>13</sup> The UN further defines OBs as Permanent Operating Bases (POBs) and Temporary Operating Bases (TOBs). POBs are most often occupied by UN infantry companies, but they can also have UN military, police, civilian, and other UN groups inside. TOBs, on the other hand, can be occupied by a UN

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12. Mvukiyehe and Samii 2017; Beber et al. 2019.

13. Peace Operations 2020, 40.

infantry company or platoon. The UN defines the range of temporary from “hours, days, or months, depending on the unit’s mission.”<sup>14</sup> While the UN’s use of “temporary” is vague, they distinguish that TOBs are not equipped for long periods of time and do not have the resources to set up a permanent camp. For a visual representation of the difference between a POB and a TOB, see Figure 8 in the appendix, which shows a POB and a TOB at the UN Disengagement Observer Force (UNDOF) in 2021. From within these bases, peacekeepers can impose costs on violence against civilians.

The presence of peacekeeping as a tool to prevent political violence stems from two costs: military and political.<sup>15</sup> Military costs, typically associated with Chapter VII missions, entail the use of force to protect civilians,<sup>16</sup> but their deterrent effects may stem from separating combatants,<sup>17</sup> providing security guarantees and information to warring sides,<sup>18</sup> and generally placing themselves near civilians to show the costs of violence.<sup>19</sup> Political costs are those associated with general monitoring and reporting peacekeepers do to engage in naming and shaming.<sup>20</sup> Political costs arise when peacekeepers patrol and can pass information on human rights abuses on to the international community as impartial actors.<sup>21</sup>

Previous research suggests that peacekeepers levy the military and political costs that reduce violence against civilians. By extension, peacekeeping bases should also impose these costs through the presence of peacekeepers within, albeit with dissipating effects over space. To impose military or political costs on perpetrators of violence against civilians, peacekeepers must be present locally. Since the local peacekeeping operation operates from within the base, the violence-reducing effects should also be contingent upon the base location. Peacekeepers begin and end patrols from within the base, meaning that their range (and thus

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14. Peace Operations 2020, 41.

15. Fjelde, Hultman, and Nilsson 2019.

16. Carnegie and Mikulaschek 2020; Costalli 2014; Hultman, J. D. Kathman, and Shannon 2013; Kathman and Wood 2014; Fjelde, Hultman, and Nilsson 2019.

17. Hultman, J. D. Kathman, and Shannon 2013; Kathman and Wood 2014.

18. Costalli 2014; Bove and Ruggeri 2016.

19. Kathman and Wood 2014; Fjelde, Hultman, and Nilsson 2019.

20. Melander 2009.

21. Hultman, J. D. Kathman, and Shannon 2013; Bove and Ruggeri 2016; Fjelde, Hultman, and Nilsson 2019.

effectiveness) is more or less restricted by the centroid of the base. With limited resources, they should be most effective closest to peacekeeping bases.

*H1: As peacekeeping bases are introduced, violence against civilians is more likely to decrease.*

*H2: The effect of peacekeeping bases on reducing violence will decrease as the treatment area increases in size.*

Similarly to the effects of peacekeepers, bases should have differential impacts on violence from government and rebel actors. For example, both rebels and incumbents are aware of peacekeeping base deployments and operations, and hence are more likely to be deterred from committing political violence than if a peacekeeping base was not placed. However, for two reasons, peacekeeping bases are more likely to reduce the political violence of rebel actors than state actors. First, host states have veto power over where peacekeepers deploy. The consent of the incumbent is necessary, as dissatisfied states can force the UN out.<sup>22</sup>

Second, government buildings are likely to be staging grounds for state violence, so the presence of a peacekeeping base can increase the negative incentives, and thus the cost of violence. Because the state has less ability to move efforts elsewhere due to the costs of existing infrastructure, the violence decrease from state actors is likely to be less than rebel actors. Although rebels can redirect their efforts and commit violence elsewhere, state actors have a lower capacity due to higher costs and have less opportunity to move away from the peacekeeping base.

Rebels, on the other hand, have more freedom to move away from peacekeeping bases and redirect their actions elsewhere. Thus, while local violence from rebel groups may go down after base deployment, it is likely the result of violence being redirected outside the bounds of the base's gravity. Therefore, I expect the presence of a peacekeeping base to

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22. See, for example, the recent end of the UN mission in Mali (De Simone [2023](#)).

decrease local rebel violence more than the incumbent violence because rebels can change strategies and relocate at lower costs.

*H3: As peacekeeping bases are introduced, the levels of rebel violence against civilians will decrease to a greater extent than the state violence against civilians in the same area.*

## 4 Research Design

To test the hypotheses that peacekeeping bases will reduce violence against civilians, I start with a necessary scope condition. For peacekeeping bases to impact civilian victimization, peacekeeping operations must have a mandate to protect civilians from violence. Peacekeeping operations that are there to verify the terms of a ceasefire and act as mediators, for example, would be outside the scope of this research note. These bases are often placed inbetween or on the very edge of state boundaries that tend to be less populated and where civilians are less likely to live,<sup>23</sup> which means that the inclusion of these bases would bias the violence reduction capabilities as higher than they are in reality. To filter potential peacekeeping missions to those with a mandate to protect civilians, I use the Peacekeeping Mandates (PEMA) dataset.<sup>24</sup>

This research note examines violence surrounding peacekeeping bases when the bases' radii do not overlap with each other. I exclude any peacekeeping bases with overlapping areas because of spillover effects that cannot be accounted for by the difference-in-difference models. The spillover effects are a threat to causal inference. Any spillover of violence violates the assumption of stable unit treatment value assumption (SUTVA),<sup>25</sup> as one treatment could affect the outcome of violence for another treatment.

One potential issue with using a coordinates approach is the lack of control groups in the data. Unlike the grid structure common in microstudies of peacekeeping, there are no

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23. See, for example, the UNTSO's operations: <https://untso.unmissions.org/gallery-untso-impressions>.

24. Di Salvatore et al. 2022.

25. Rubin 1986.



empty spaces where bases *could* be placed but are not. To resolve this, I use the units not yet treated at the same time that the “treated” group received treatment as the control variable. I also remove those bases from the sample after they received their first treatment, which is common in the difference-in-differences literature.<sup>26</sup>

## 4.1 Outcomes of Interest

In this research note, I explore the effect of peacekeeping bases on political violence. With this in mind, I measure the political violence of state and rebel groups, modeled after others exploring political violence such as Hultman et al., Fjelde et al., and Kunkel.<sup>27</sup> In line with those papers, I use the UCDP’s Georeferenced Events Database containing longitudinal data on violence across the world. As peacekeeping bases arrive, they are unlikely to have an immediate effect on the surrounding area; to mitigate this issue, the dependent variable for all models is lagged by one month.<sup>28</sup>

As explained in Section 3, bases should reduce local violence against civilians by rebels at a higher rate than state actors. In addition, I distinguish between the types of political violence committed. With the UCDP’s data, I examine political violence broken down into four potential outcomes across two measures of the dependent variable. The first measure is a count of all civilian deaths in a month with separate outcomes for government and rebel actors. The second measure is a binary variable coded as one if five or more civilians died in a single month, also split across actors.

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26. Callaway and Sant’Anna 2021; Chaisemartin and D’Haultfœuille 2022; Baker, Larcker, and Wang 2022.

27. Hultman, J. D. Kathman, and Shannon 2013; Fjelde, Hultman, and Nilsson 2019; Kunkel 2023.

28. Similarly, the data only details what month peacekeepers arrive, rather than the day of the month. Using the same month violence as the dependent variable would compare bases’ impacts on reducing violence if they arrived on the 1st or 31st of the month. Lagging of the dependent variable should alleviate this issue.

## 4.2 Treatment

To measure the treatment, I use the coordinates of peacekeeping bases from the Geocoded Peacekeeping Operations (Geo-PKO) dataset.<sup>29</sup> Geo-PKO maps the base deployments of UN Peacekeeping from 1994-2020 at the monthly level. With these coordinates, I constructed areas of “treatment,” measured as the area around a base constructed circularly. To test how bases may impact violence at different areas, I measure the area around a base with various radii; the first radii is 2km, followed by treatment areas of 5km to 50km in 5-km intervals (e.g., 10, 15, 20km and so on).

Peacekeeping bases are not monoliths, especially considering the divide between POBs and TOBs. Although there is no current data on the size of peacekeeping bases or their status as POB or TOB, I use the Geo-PKO variable  $HQ$  as a proxy for size. Cil et al. classify bases into one of four types: mission headquarters, sector headquarters, troop-contributing country (TCC) headquarters, and not a headquarters. After the first analyses examining the effects of all bases on political violence, secondary analyses disaggregate the treatment by base type to see which, if any, bases are driving the results.

## 4.3 Methods

In order to create a control sample, I utilize Calloway and Sant’Anna’s group-time average treatment effect (GTATE) to artificially use not-yet treated groups as controls.<sup>30</sup> In other words, if every base in the sample started at time  $t_1$  and went through time  $t_{200}$ , each is assigned a time variable counting from one to the final time in the sample. The GTATE then makes comparisons at each time period of newly treated units with those not yet treated. Therefore, a location that received treatment at  $t_{15}$  is compared to all units in the data that had not yet received treatment at  $t_{15}$ . This treatment effect is spread across each unit and then pooled into a single overall treatment effect that can be interpreted identically

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29. Cil et al. 2020.

30. Callaway and Sant’Anna 2021.

to the average treatment effect (ATE) in canonical difference-in-differences models. With treatments occurring over time in panel data, bootstrapped standard errors are used to calculate the confidence intervals.

Although traditional geographic-causal inference models may initially seem more appropriate, these models cannot be used to determine how peacekeeping bases impact state and rebel actors. Models used to determine the effect of geographic proximity on a base’s ability to reduce violence, such as spatial econometric models,<sup>31</sup> cannot measure the exposure of the base to local actors. Since state and rebel forces act fluidly to counter one another, we can only see when they commit the violence, rather than their exposure to the base measured through presence. To solve this problem, I use a varying conception of *local* and measure it using various constructions of the radii surrounding a peacekeeping base. Thus, my models measure each level of violence within these defined radii to explore how violence changes with each measure.

#### 4.4 Parallel Trends Test

The parallel trends test is crucial in assessing validity in any difference-in-differences study design.<sup>32</sup> The parallel trends test evaluates the assumption that the outcomes for the treatment and control groups over time would have stayed parallel (and thus no effect observed) without any treatment. I use Callaway and Sant’Anna’s unconditional parallel trends test to examine this.

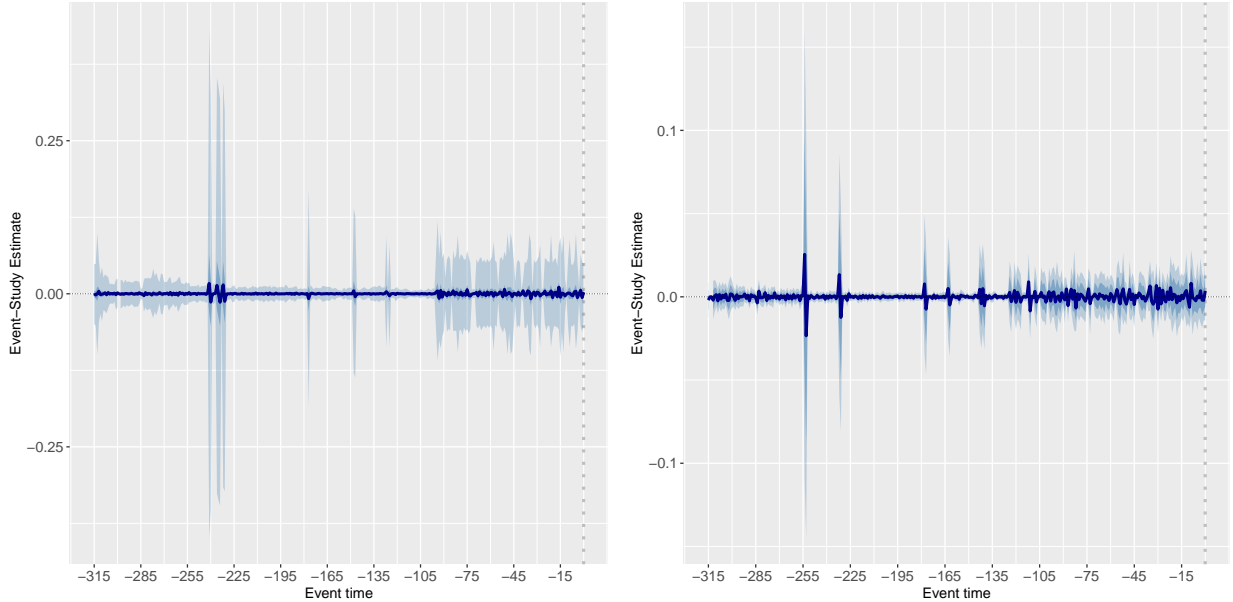
Figures 1 and 2 provide my plots for the unconditional parallel trends test. Figures 1a and 1b show the plots upon the entrance of the base on government violence, while Figures 2a and 2b show the plots on rebel violence. These plots illustrate event study analyses of four of my models.<sup>33</sup>

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31. Anselin 1988.

32. Roth et al. 2023.

33. Since this research note is an empirical test of peacekeeping bases with many empirical models, there is not enough space in the appendix for the plots of approximately 200 models. The code for creating the rest of the parallel trends plots can be found in the replication materials.



(a) State political violence - probability.

(b) Rebel political violence - probability.

Figure 1: Estimates and confidence intervals of violence for pre-treatment of base entrance, based on length of exposure.

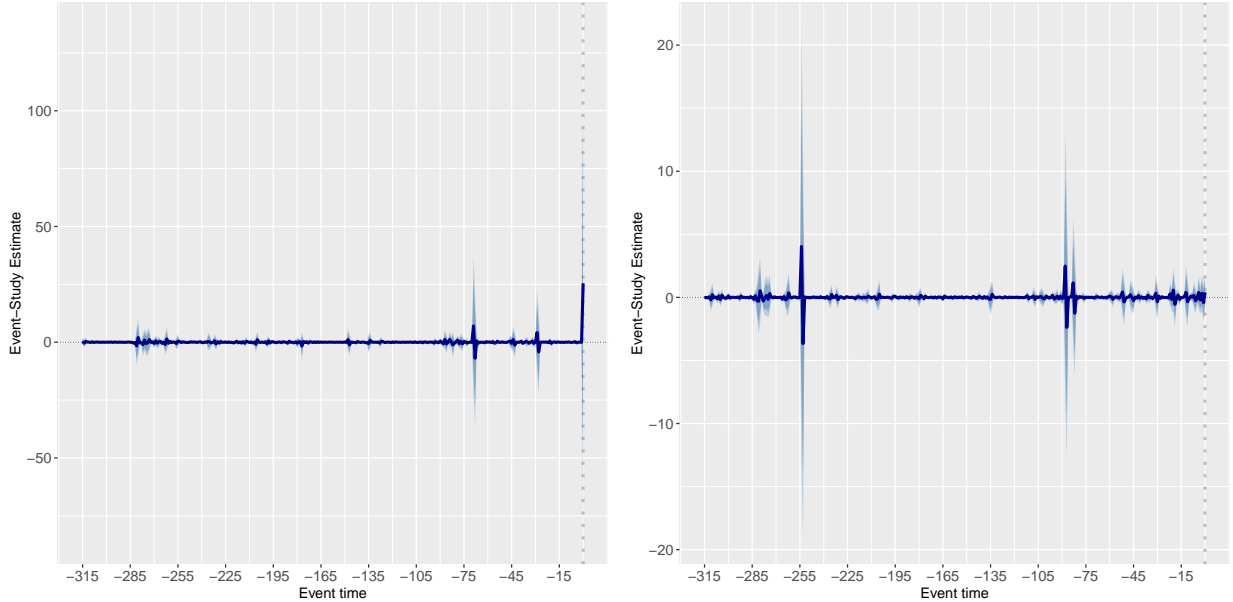
The key to the interpretation of this test is the *pre*-treatment period. Callaway and Sant’Anna’s test is a hypothesis test, where the hypothesis is that throughout the pretreatment phase, the parallel trends test is violated. Thus, the parallel trends assumption is supported if this test is violated before the “treatment” of peacekeepers, which can be done by examining each pretreatment period where the confidence interval crosses zero.

My event study plots testing the null hypothesis show that the pretreatment estimates are statistically insignificant, as shown in Figures 1 and 2.

## 5 Analysis

What are the local effects of peacekeeping bases? I start this section with the point estimates and the 95% confidence intervals plotted in Figure 3. Figure 3 shows the cumulative effects of peacekeeping bases on violence, in binary and count measures of the outcome and split by actor.

Figures 3a and 3c show the binary and count outcomes of violence by state actors,



(a) State political violence - total.

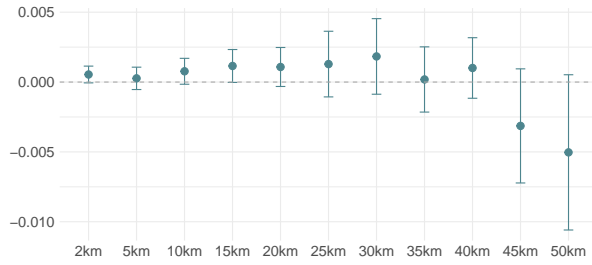
(b) Rebel political violence - total.

Figure 2: Estimates and confidence intervals of violence for pre-treatment of base entrance, based on length of exposure.

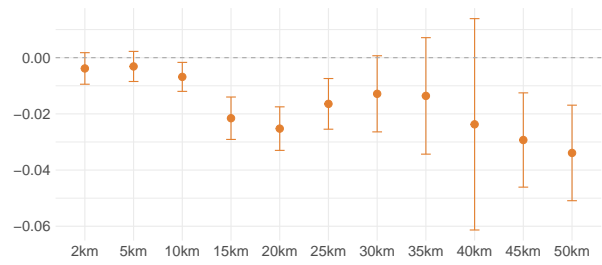
respectively. Almost all estimates in the models have a  $p$ -value  $\geq 0.05$ , indicating a lack of statistical significance at the conventional level. The exceptions to this are estimates in the 35-50km range in Figure 3c. It is unlikely that peacekeeping bases do not affect violence in ranges of 2-30 km but do affect violence in a larger range, leading me to conclude that this is quite possibly due to noise and a small sample size at that distance.<sup>34</sup>

Comparison of Figures 3a and 3c with Figures 3b and 3d shows support for  $H3$ . In fact, peacekeeping bases have a statistically significant and negative effect on rebel violence measured as a binary or count outcome. Figure 3b shows a surprising jump in the reduction in violence from the 10km to 15km distances, with a null effect in the 30-40km ranges and a return to significance at the 45km and 50km distances, complete with lower point estimates than the 10-25km distances. Figure 3d contains other striking results, again driven by the estimates of larger distances. Although these results are intriguing, one issue may be the

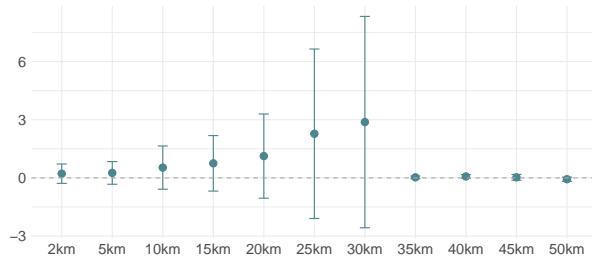
<sup>34</sup>. Recall that when the base radii intersect with each other the bases are dropped from that sample. Thus, as the radius of base treatment increases in size, the number of peacekeeping bases and overall observations in the sample decrease.



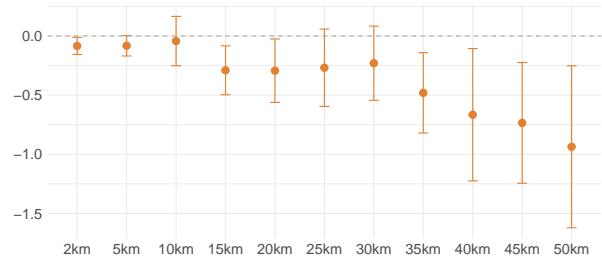
(a) Government violence



(b) Rebel violence



(c) Government violence



(d) Rebel violence

Figure 3: Comparison of violence figures based on different distances from a peacekeeping base. Top row: Probability of at least 5 civilian deaths. Bottom row: Count of civilian deaths. Bootstrap standard errors are used to calculate confidence intervals.

aggregation of all peacekeeping bases into a dichotomous treatment. To unpack these results and understand how bases can affect local violence in a different way, I turn to Figures 4 - 7.

Figure 4 shows similar results between the types of peacekeeping bases to the results in the aggregated models, with the exception of the mission headquarters. Every estimate for mission headquarters (besides the estimates of 2km and 10km) is statistically significant, although the substantive significance decreases from the 40km to 45km estimates. These results show how the mission headquarters can reduce violence, and provides more evidence that the largest peacekeeping bases have strong effects on reducing state violence, even as far as 40km away.

Figure 5 paints a similar picture, since the only bases that reduce the probability of state violence against civilians are the mission headquarters. These results are important, as the mission headquarters decreases the probability of state violence against civilians from

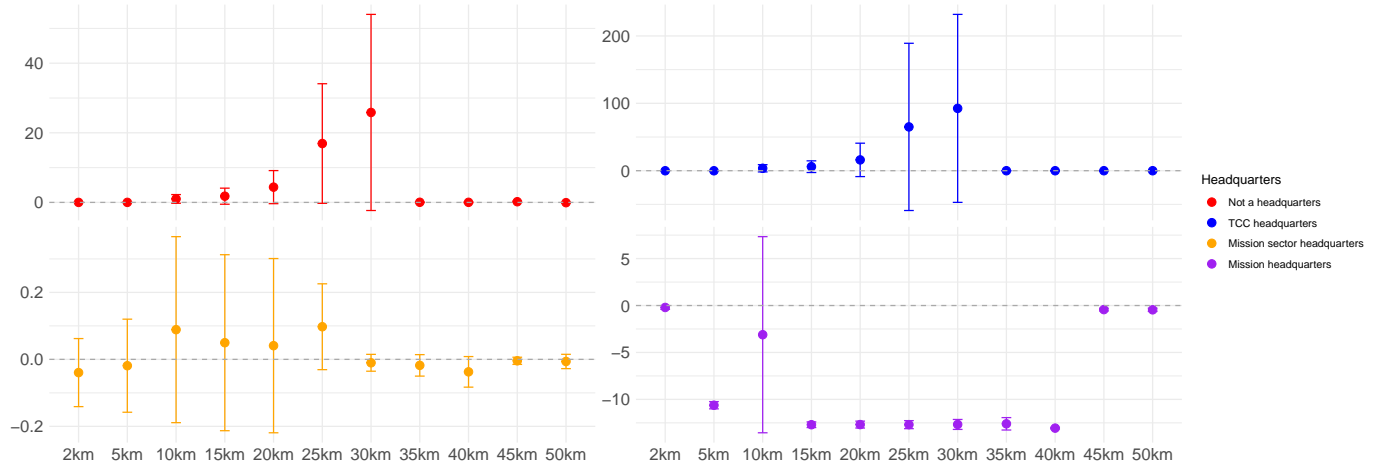


Figure 4: Average Treatment Effect (ATE) from models with a dependent variable representing the total number of civilian deaths by state actors, grouped by the type of operating base.

approximately 20 – 25% at ranges of up to 40km away from the base. The headquarters of the peacekeeping mission is likely to be larger than the three counterparts, and this impact shows in the way that they decrease both the amount and the probability of violence against civilians by state actors.

These findings are substantively interesting, especially compared to other recent micro-level studies of peacekeeping. Existing research often shows that peacekeepers have a null effect on incumbent political violence.<sup>35</sup> These models provide novel evidence that peacekeeping bases (including peacekeepers within) can reduce state violence, as opposed to the measurement of only peacekeepers. Of course, there can only be one mission headquarters per mission; moreover, to repeat the words of Walter et al.,<sup>36</sup> the solution to peacekeeping deployment dilemmas cannot be as simple as sending more troops or, in this case, making every base as large as possible. However, these findings show that there are ways to deter state violence. The mission headquarters could be strategically placed, for example, in a location with a high probability of state violence, while the composition of units can be

35. Ruggeri, Dorussen, and Gizelis 2017; Fjelde, Hultman, and Nilsson 2019.

36. Walter, Howard, and Fortna 2021.

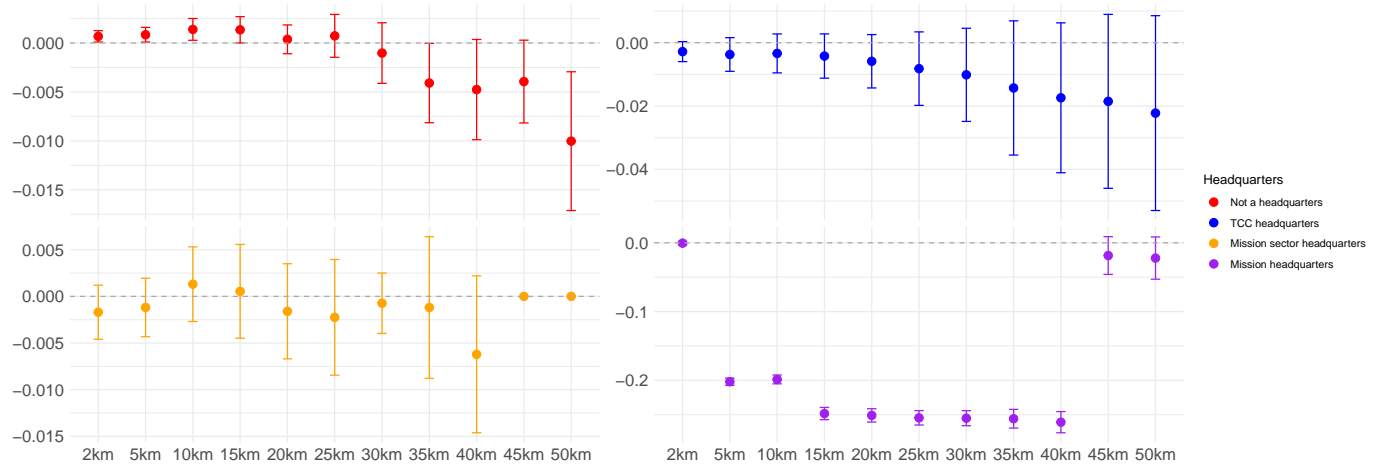


Figure 5: ATE from models with a dichotomous dependent variable indicating the occurrence of at least five deaths by state actors, grouped by the type of operating base.

modified to increase the effectiveness of peacekeepers against rebel actors.<sup>37</sup>

When disaggregated by the type of peacekeeping base deployed, the rebel violence in Figures 6 and 7 as compared to the aggregated estimates in Figures 3d and 3b, presents a different story. Figure 6, for example, shows statistical insignificance in all models, indicating that peacekeeping bases regardless of size and type do not increase or decrease rebel violence. However, while the models suggest that peacekeepers do not reduce the number of violent civilian deaths by rebel groups, Figure 7 estimates point to an effect of the bases on the probability of rebel political violence across the mission headquarters and the mission sector headquarters. When increasing the treatment radius in 5km intervals, the results for both types of headquarters are statistically significant and indicate a decreased probability of violence up to 25km from the base.

The effect of bases on rebel violence is substantively smaller than the effects on state violence, providing evidence against H3 and contrasting with existing research on the effects of peacekeepers on rebel violence.<sup>38</sup> This effect may come from the areas where peacekeeping bases are deployed. Recall that peacekeepers work with the host state to stabilize the country

37. Kunkel 2023.

38. Ruggeri, Dorussen, and Gizelis 2017; Fjelde, Hultman, and Nilsson 2019; Kunkel 2023.



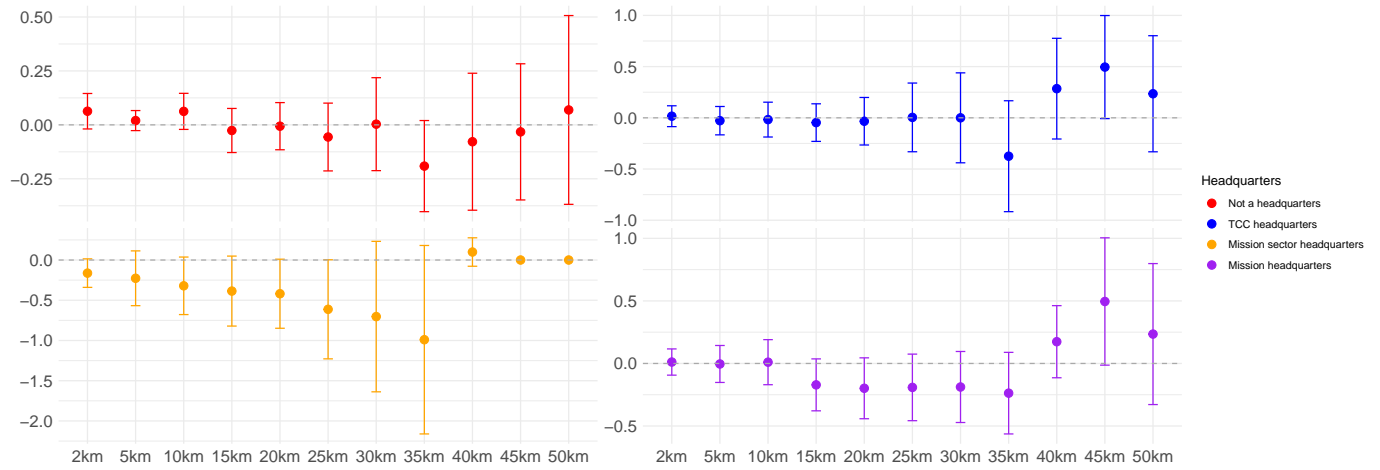


Figure 6: ATE from models with a dependent variable representing the total number of civilian deaths by rebel actors, grouped by the type of operating base.

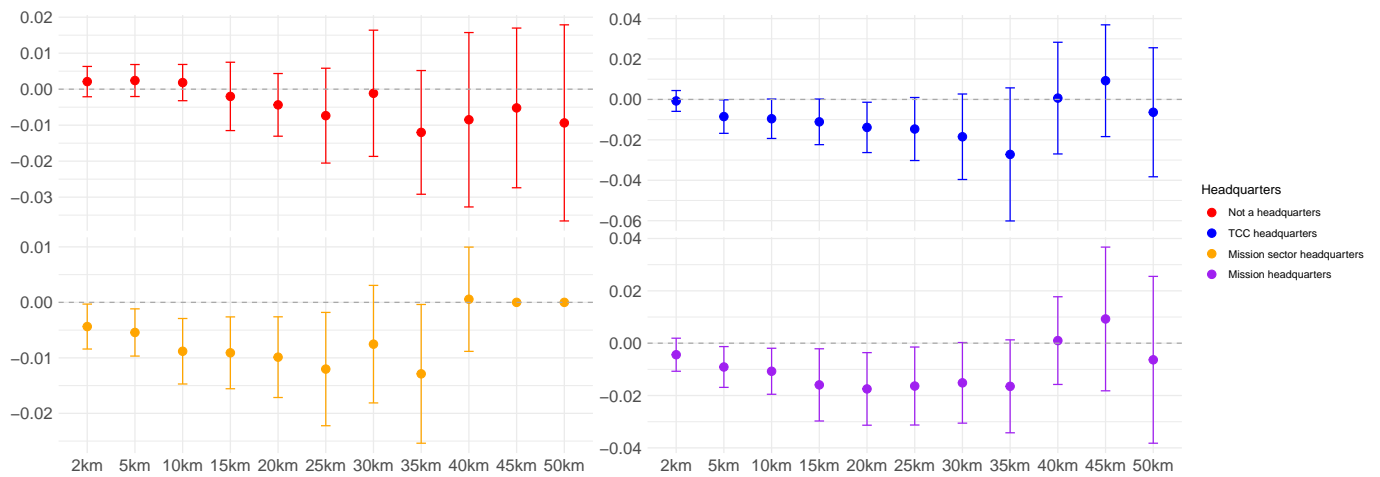


Figure 7: ATE from models with a dichotomous dependent variable indicating the occurrence of at least five deaths by rebel actors, grouped by the type of operating base.

and that peacekeepers can take preventive offensive action to reduce rebel violence.<sup>39</sup> Mission and sector headquarters that rarely move are more likely to select into population centers<sup>40</sup> and do so with the permission of the host state and, therefore, are more likely to go to areas already controlled by government forces. This could explain the relatively small impacts of bases on rebel violence, as larger bases may be more likely to go to incumbent-controlled territory where rebel violence is already low.

## 6 Conclusion

Do peacekeeping bases reduce violence against civilians? This research note analyzes the impacts of UN peacekeeping bases. I extend existing causal mechanisms of peacekeeper protection to peacekeeping bases. Bases act as a physical reminder of the UN's presence and thus a reminder of the consequences for attacking civilians and the potential to impose physical or political costs. Peacekeepers acting with Ch. VII authority to protect civilians from the confines of a peacekeeping base lends credible threats to the consequences of political violence. With these violence reducing mechanisms, bases have gravity that dissipate over space.

To provide evidence of these effects, I use Geo-PKO's data on the location and composition of peacekeeping bases in conjunction with the UCDP's data on political violence. Using the group-time average treatment effect to estimate a difference-in-differences model with selective treatment timing, I show that peacekeeping bases, on average, reduce political violence by rebel groups and have null effects on state violence, in line with expectations from the existing literature on peacekeeping effectiveness. However, these effects are more complex, as disaggregating the type of peacekeeping base by size instead shows that the largest peacekeeping bases, mission and sector headquarters, impact both rebel and state violence, with a larger effect on government forces.

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39. Kunkel et al. [2023](#).

40. Mvukiyehe and Samii [2021](#).

My results indicate the unique effects of peacekeeping bases; although my models cannot distinguish the difference between peacekeeping bases and the troops housed within, this research note provides an important first step in uncovering the local effects of peacekeeping bases and contributes to the extant literature on peacekeeping effectiveness.

Although this research note is the first to test these effects, there are two important caveats to empirics and causal identification. First, the research design does not account for possible selection effects, which prior research has shown to have a significant impact on the UN sending peacekeepers.<sup>41</sup> Yet, as those articles point out, the UN sends peacekeepers (and thus the bases) into more difficult situations where a violent outbreak occurred or is likely to occur in the near future. In other words, the estimates would bias peacekeepers as being less effective than they are in reality, meaning the estimates showing a decrease in violence are likely underestimating the true effects. Second, while I argue that a large part of the gravity of a base comes from its physical size, no data currently exist on the size of peacekeeping bases. To approximate the size of bases, I used Geo-PKO's *headquarters* variable, which provides one way to measure the size of bases ordinally. Future research should explore the effects of peacekeeping bases at a more granular level, such as using satellite imagery to measure the area of a base.

It is well established that peacekeepers are effective in preventing violence. However, little is known about the effects of the bases from which they operate. In this research note, I develop a novel theory on how bases impact violence and explore their effects empirically, finding that peacekeeping bases may play a larger role in determining the effectiveness of UN peacekeepers than previously thought.

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41. Ruggeri, Dorussen, and Gizelis [2017](#); Fjelde, Hultman, and Nilsson [2019](#); Kunkel [2023](#).

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# Appendix

## A POB vs TOB

### UNDOF Headquarters



(a) A Permanent Operating Base: the UNDOF HQ, in 2021.



(b) A Temporary Operating Base: UN Point 86 B, in 2021.

Figure 8: Operating Bases in 2021