

Research Repository

UN Peacekeeping, Militarization, and Women's Empowerment

Accepted for publication in Cooperation and Conflict

Research Repository link: <https://repository.essex.ac.uk/43675/>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the published version if you wish to cite this paper.

<https://us.sagepub.com/en-us/nam/journal/cooperation-and-conflict>

UN Peacekeeping, Militarization, and Women's Empowerment*

Ismene Gizelis
Department of Government
University of Essex
tig@essex.ac.uk

Michelle Benson
Department of Political Science
University at Buffalo, SUNY
mbenson2@buffalo.edu

* This work is funded by the project Peacekeeping Dividends and Post-conflict Development, selected by the ERC, funded by UKRI [#101094301] and by generous research support by *UN Women*.

Abstract

Militarization permeates both formal and informal institutions, often reinforcing gender hierarchies and diverting resources away from sectors such as education and health that disproportionately benefit women and girls. As a result, female empowerment tends to decline under militarized conditions—especially in states experiencing civil war. We argue that United Nations peacekeeping operations (PKOs) can counter these effects by directly improving female empowerment indicators and fostering post-conflict demilitarization, thereby creating potential virtuous cycles of empowerment. Using a series of empirical tests, including difference-in-differences estimations and mediation analyses, we examine the impact of PKOs on conflict-affected states. Our findings indicate that the presence of PKOs is positively associated with increased levels of female empowerment, across multiple operationalizations of conflict and post-conflict militarization. Moreover, PKOs appear to promote empowerment both directly and indirectly by reducing state military expenditures.

Introduction

Why do some conflict states such as Niger increase military spending after conflict while others, such as Liberia are able to decrease military expenditures? Furthermore, why did Niger recede on measures of female empowerment after conflict while both Liberia and Sierra Leone improved on female empowerment indicators? We posit here that UN peacekeeping is associated with the divergence between the more positive conflict and post-conflict outcomes of Liberia versus Niger, which did not receive UN peacekeeping during conflict.

Recent studies have shown that United Nations peacekeeping operations (UNPKOs) may have a significant impact on the lives of local populations beyond containing violence and battle deaths (Blanton, Peksen, and Blanton 2023; Blair 2021; Blair et al 2023; Bove, Di Salvatore, & Elia 2021; Gizelis & Cao 2021; Mironova & Whitt 2017). More specifically, research has indicated that UN peacekeeping presence has contributed to improvements in societal outcomes for women either by responding to reports of sexual violence (Benson and Gizelis 2020) or by improving access to health, and even more relevant, to empowerment education for women and girls (Gizelis and Cao 2021).¹ Blanton, Peksen, and Blanton (2023) argue that UN PKOs, especially multidimensional PKOs, create political dynamics that support women's political and social empowerment by improving their social and political participation.

Here, we analyze an additional pathway through which UN PKOs can improve post-conflict environments for women. We posit that the presence of UN peacekeeping operations can increase female empowerment by reducing governmental militarization. We argue that UN PKOs may have an impact by both reducing government military spending as percentage of GDP, allowing more resources to be distributed for education, health or areas that benefit female empowerment, and by reducing military control of the chief executive and the regime and subsequently social values and norms about female empowerment. We further suggest that these

¹ We recognize that the positive impacts of UN peacekeeping often occur despite evidence of local violence, and sexual abuse and exploitation (SEA) by UN peacekeeping officials. The presence of peacekeepers has led to gross instances of SEA by individual peacekeepers including but not limited to rape and transactional sex in numerous missions (Whitworth 2004, Razack 2004). While the UN has attempted to improve training and enhance accountability for abusive UN peacekeepers, (e.g., the 2005 Zeid report, the 2015 OIOS report, and General Assembly Resolutions such as, A/71/729 in 2016), the UN's record on SEA is "checkered" and much work still remains to be done to prevent and prosecute future such abuse (Karim and Beardsley 2016, 101). The focus of the research presented here, however, is on the structural rather than local and individual impacts of the presence of UN peacekeeping operations on aggregate women's empowerment levels. As such, we examine how UN peacekeeping might directly and indirectly impact women's empowerment as operationalized by an index of the level of women's civil society and political participation in conflict states.

pivots away from militarization, facilitated by the presence of UN peacekeeping, should be associated with an indirect increase in female empowerment.

We evaluate our argument using two analytical approaches. First, we compare female empowerment for countries that have had UN peacekeeping against female empowerment in post-conflict control without peacekeeping, using a difference-in-differences model comparing trends, with all countries that have experienced civil wars included in the UCDP dataset for the 1990-2021 period. Second, we estimate the impact of UN peacekeeping on changes in military spending levels and female empowerment for all countries with civil conflicts over the period 1990-2016 that see at least a five-year peace period, using mediation model analyses, to capture both direct and indirect effects on militarization (Baron and Kenny 1986). We find consistent evidence that UN peacekeeping presence directly and indirectly leads to improvements in overall female empowerment despite the adverse effects of conflict and post-conflict militarization. These findings have implications for both peacekeeping scholarship and practice: PKOs can affect women's empowerment by altering post-conflict militarization trajectories that shape whether states devote scarce resources to coercive capacities or to civilian services that may support women's empowerment.

Female Empowerment in Conflict and Post-Conflict Settings

Female empowerment as a concept and policy has been promoted through the United Nations Millennium Development Goals (MDG, Goal 3) and the United Nations Sustainable Development Goals (SDG Goal 5). While MDG 3 had conceptualized female empowerment as access to resources and opportunities and valuing different opinions, SDG 5 developed specific indicators highlighting political and leadership participation and violence against women. Ultimately, the concept of female empowerment relies on three interrelated dimensions: agency to make choices regarding opportunities and resources, availability of resources to implement such choices, and evidence of achieving certain policy outcomes (Kabeer 2005).²

In the empirical conflict literature, gender equality is well known as a leading indicator for more general forms of political tolerance and inclusion (Melander 2005a; Cohen and Karim 2021). Furthermore, gender equality is an indication of healthy development and good governance for conflict and post-conflict countries (Joshi, Hughes & Sisk 2015; Hudson et al 2009). The gender dimension of development is potentially related to post-conflict reconstruction in three ways. First, gender equality has a profound effect on lasting and sustainable development (Duflo 2012; Sen 1999). Second, beyond its economic impact, research

² While partner violence and violence against women are increasingly areas of study, in this paper we primarily focus on female empowerment as agency to make political, economic, and social choices.

shows that gender equality is related to many other forms of social change such as changes in norms and values that lower the risk of recurrent conflict (Melander 2005a and 2005b). Third, the fact that civil wars destroy the previous social order offers opportunities to transform power relations and allow more inclusive politics (Fuest 2008).

Women experience conflict and post-conflict environments in different ways than men, and might have distinct preferences and priorities for reconstruction. Many scholars advocate a more inclusive idea of post conflict recovery, highlighting how other issues such as development and human rights intersect with security (O'Reilly, Súilleabháin, and Paffenholz 2015/ 6). A recent study by Dahlum and Wig (2021), for example, suggests a strong link between female political empowerment and civil peace, particularly pronounced in the twentieth century. Their study, using data from the Varieties of Democracy (V-Dem) project, shows that female political participation, especially the role of women in civil society and social values that foster female participation, are drivers of the positive relationship between female empowerment and lower levels of civil conflict the last 200 years.

To date, however, we have a limited but growing knowledge about what actions are effective in contributing to gender equality and women's inclusion in reconstruction politics over time in post-conflict societies. Some studies suggest that conflict patterns, especially level of intensity and violence might interact with the mode of conflict termination to shape post-conflict improvements in female empowerment. Conflicts that end with peace agreements including female-specific improvements may lead to positive changes in female empowerment (Bakken and Buhaug 2021; Joshi and Olsson 2021). Others have emphasized the overall role of democracy stock and female suffrage in creating new opportunities for women to mobilize (Beer 2009; Blanton, Packsen, and Blanton 2023).

Female Empowerment and Militarization

Much of the empirical literature has converged on how post-conflict countries may see short-term improved female empowerment after the end of conflict (Webster, Chen, and Beardsley 2019). However, such outcomes are far from guaranteed, depending on the post-conflict economic, societal and political landscapes. During and after active conflict, civil wars may create spaces for women's economic advancement and, through that, their political mobilization (Hossain 2018). Fuest (2008) observed, for example, that in the aftermath of the Liberian civil wars, some women benefited from opportunities opened by the active role of civil society organizations and fostered by international peacebuilding and development plans. Hughes and Tripp (2015) similarly found that in many sub-Saharan post-conflict countries, the

trajectories of women's movements into national legislations have accelerated since 2000 when international norms and UN missions supported gender empowerment policies.

Yet not all post-conflict countries experience such gains. Some violent armed conflicts experience high levels of militarization which continue to rise well after the end of a conflict episode.³ One of the most adverse, hidden consequences of civil war is that inflated state military spending continues after the conflict is over (Collier et al, 2003). Collier et al, for example, find that, on average, military expenditures rise from 2.8 to 5.0 percent of GDP pre-conflict to conflict periods and remain at an elevated 4.5% of GDP for the first decade after conflict. They note that “(c)umulatively over the first decade of peace some 17 percent of a year's GDP is lost in increased military spending. (p. 20)” Increasing levels of militarization are attributed to the ratchet effect, where wartime expansion of coercive power and military institutions is easier to build than to reverse. While Rasler and Thompson's ratchet effect was originally developed to explain the long-term expansion of state capacity following interstate wars, similar dynamics may emerge in civil wars. While nuanced in civil wars, and contingent on state capacity, militarization processes and militarized governance are difficult to dismantle once they become embedded in the emerging political system. Civil wars often do not end with a dismantling of wartime institutions, instead wartime structures frequently persist post-conflict because of continued insecurity and weak state institutions that remain useful to political elites and local leaders (Besley and Persson 2010; Rasler and Thompson 1985; Toft 2010; Walter 2004).

In such cases, norms can revert to historical patriarchal values as post-conflict governments use emerging threats to sustain high or increased levels of military spending, and military power. Such continued militarization may undermine any initial female post-conflict empowerment gains (Berry 2017; Hadzic and Tavits 2021). Heightened militarized processes in response to perceived internal and external threats can entrench gender roles and enhance gender hierarchies (Schroeder 2017). This highly gendered militarization process reinforces structural hierarchies and hampers long-term peace prospects (Enloe 2016; Meger and Sachseder 2020; Sjoberg and Via 2010). Militarization also takes different forms from increasing resources

³ Note that the focus of this manuscript is the relationships between peacekeeping, female empowerment and militarization. We do not focus on *militarism* which has been defined as “a package of ideas...a compilation of assumptions, values, and beliefs” by Enloe (2004, 219) in *The Curious Feminist*. Militarism, may thus be conceptualized as a broad belief system, promoting military values such as hierarchies, obedience, strict gender behaviors aiming to shape other social institutions, economic structures and international engagement. It is a difficult concept to operationalize since it incorporates daily social interactions, social organization and preparation for war in response to perceived threats (Elveren et al., 2022). Militarization, Enloe (2004) notes is a related but distinct “sociopolitical process” (p. 219). This process can include, but, according to Enloe (2004, 129), is not limited to, an economic component.

for defense and the military to blurring the lines between civilian and military institutions, especially in the area of law enforcement (Dowler 2013; Flores-Macías and Zarkin 2019).

Thus, militarization, especially when paired with conflict, often leads to a vicious cycle, where development and human capital are undermined, eroding social capital, formal institutions, and trust in government, making future conflict more likely (Acemoglu and Robinson 2012; Bates 2015; Hegre and Nygård 2015). Higher military budgets in post-conflict countries with limited resources may divert resources away from productive use, undermining overall growth and social development, although, admittedly, the long-term impact is often difficult to assess (Dunne 2012; D’Agostino, Dune, and Pieroni 2017). Military budgets increase at the expense of the distribution of resources to women and children-friendly policies, services and female-intensive economic sectors such as education, health and the public sector (Elveren and Moghadam 2019; Ostry et al. 2018). Elveren and Moghadam (2019) show that higher levels of military budgets as percentage of GDP are associated with lower levels of female labor participation.

Even instances of social turmoil, such as riots, may lead to changes in military spending and securitization that can undermine or even reverse gains in female empowerment. For example, the divergent outcomes for women’s empowerment post Arab Spring can be explained by levels of military spending and the status of women’s organizations prior to the protests (Moghadam 2018).⁴ Recent studies also suggest that external threats, especially territorial ones, are associated with fewer women in legislative bodies. In addition, as noted in the feminist literature (e.g., Cockburn 2010; Kang and Kim 2020; Schroeder 2017), militarized countries have fewer women in positions of power. Thus, evidence suggests that female empowerment is impeded or recedes when both society and policy makers follow a militarized path.⁵

Female Empowerment and Peacekeeping

Peacekeeping missions are one form of international response to civil strife and state failure. Even when peacekeeping missions are not fully successful, PKOs can promote settlements and improve conflict outcomes (Autesserre 2010; Fortna 2008; Hegre, Hultman, and Nygård 2019; Howard 2008; Kathman and Benson 2019). The developments initiated during the UN Decade for Women, 1975-1985, increased pressure on UN peacekeeping missions as well as other organizations and national governments to include gender perspectives in post-conflict

⁴ Only Tunisia experienced more favorable female empowerment outcomes following the Arab Spring.

⁵ This evidence is also demonstrated in changes in donor country activity. Recently the UK’s military transfers were made at the expense of aid programs that had a concrete impact on women and girls in conflict regions (Elveren and Moghadam 2019; WILPF-UK et al., 2019).

reconstruction and to incorporate the rhetoric and practices of gender mainstreaming in all policies. These generalized efforts by the UN continued over the decades with the United Nations (2000) Millennium Declaration and United Nations Security Council Resolution (UNSCR) 1325, which had the combined goals of targeting security, poverty reduction and development in ways that could specifically benefit women and children.

UN PKOs, we posit, have the potential to improve female empowerment in three possible ways.⁶ First, by promoting gender mainstreaming, and the Women, Peace and Security agenda, UN missions support policies, National Action Plans and participatory institutions that create more inclusive institutions for women. These institutional changes improve democratic processes and minimize the risk of state control by the military. Second, UN PKOs often substitute or support state capacity by fostering security sector reforms. This mechanism concerns the organization and governance of coercive institutions, including police, military justice and oversight bodies. These reforms are generally in line with international norms and principles of civilian control, human rights, non-discrimination and gender responsiveness. This mechanism is distinct from gender mainstreaming per se: whereas the first mechanism focuses on women's formal inclusion in political and civic institutions, the second focuses on reforming the security institutions that shape personal safety, access to rights, and the distribution of coercive power (Huber and Karim 2018). Finally, the presence of peacekeepers minimizes threats to the state and reduces the need for continuous military spending allowing post-conflict societies to transition to societies with higher provision of public services and social investments that support women's capabilities and autonomy.

UNSC Resolutions often explicitly state the goals of facilitating protective and inclusive gender policies in the conflict states hosting peacekeeping operations. Many civil-conflict UNSCR resolutions emphasize "the important role of women in the prevention and resolution of conflicts and in peacebuilding" as noted in UNSCR 1325 (e.g., UNSCR 1734, 2006). Conflict resolution language may also be much more extensive and specific regarding the desire to facilitate transition to a peaceful, inclusive post-conflict state. For example, in examining the UNSCR resolutions from 1997 to 2013 on Sierra Leone, more than half of the resolutions include language focusing on gender issues (15 out of 28 resolutions). Some of these identify and name women's civic society organizations (e.g., UNSCR 1370) while others call for greater inclusivity and empowerment of women in conflict-and post-conflict society. UNSCR 2005 calls

⁶ An important body of feminist literature highlights tensions between different militarized dimensions of robust peacekeeping and the goals of establishing peace in conflict states (e.g., Andersen 2018, Gauthier Vela 2021).

for the government of Sierra Leone “to enhance greater political participation of women” while UNSCR 2065 and 2097, respectively urge the government to promote:

“...a culture of non-violence and ensure the safe, full and equal participation of all sections of society, in particular women in the electoral process...”, and ensure that the “...conduct of the elections proceed in a peaceful, inclusive and credible manner, including through the full participation of women both as voters and as candidates...”

“...the Gender Equality Bill, including consideration of necessary amendments, to enhance the rights of women, as well as to increase their participation in the political process...”.

The goal of empowering women in conflict-and post-conflict states can be seen across time and space in United Nations resolutions on countries with peacekeeping operations. UNSC resolutions on the Ivory Coast, Liberia, the DRC, Haiti, and Colombia for example, all call for gender inclusive actions from governments and peacekeeping operations:

Remove “...obstacles and challenges to women’s participation and full involvement in public life...”
(UNSCR 1911, Ivory Coast)

“Requests UNMIL to continue to support the participation of women in conflict prevention, conflict resolution and peacebuilding, including in decision-making roles in post-conflict governance institutions, appointed and elected in Liberia, within existing resources...”. (UNSCR 2008, Liberia)

“...*further calls upon* all political stakeholders to work toward peaceful, transparent, inclusive and credible processes for future elections, including local elections in accordance with the Constitution and the Electoral law, and to ensure the full, effective and meaningful participation of women at all stages...”
(UNSCR 2256, DRC)

Gizelis and Cao (2021) and Demeritt, Nichols and Kelly (2014) have further shown that security externalities from peacekeeping can help promote human capital and female political participation. These changes are not just a function of recovery after conflict—empirical evidence suggests that countries with PKOs, on average, experience a larger improvement than countries without PKOs. Above and beyond the end of a conflict, improvements in human capital and political participation drive female empowerment by creating agency and opportunities for access to resources. This second mechanism is therefore best understood as a security-sector governance channel. International norms matter here not only because UN mandates invoke women’s participation or human rights, but because peacekeeping missions can translate those norms into reforms of security institutions themselves: training, oversight, vetting,

civilian control, accountability procedures, and gender-responsive policing or protection practices (Huber and Karim 2018).

Because post-conflict states often lack the ability to enforce policies and build-up security forces, UN peacekeeping may create an umbrella of security and security sector reforms that provides technical assistance and monitoring to direct-line authority and may even direct the implementation of policies and reforms (Dorussen and Gizelis 2013). This form of “shared sovereignty” (Krasner 2005) often entails a delegation agreement between the host state and an external actor—an international organization or a state—to provide governance (Matanock 2014). This delegation, we posit, is present to some degree for *all* UN peacekeeping operations and can impact levels of militarization as the government does not have to rely as heavily on increasing military expenditures to maintain internal and external stability.

Linking Peacekeeping, Militarization, and Women’s Empowerment

As noted above, UN peacekeeping can act as a security substitution for conflict and post-conflict states that lowers their perceived need to arm or rearm. UN peacekeeping operations change conflict actors’ uncertainty and incentives through a variety of mechanisms (Fortna 2004) including separating forces (Hultman, Kathman and Shannon 2013), by lowering conflict risk (Hegre 2019), containing conflict (Beardsley and Gleditsch 2015) and verifying peace accords (Maekawa 2022). These mechanisms, also paired with the disarmament activities present in many UN peacekeeping missions, are empirically associated with a reduced risk of conflict recurrence (Hegre, Hultman, and Nygård, 2019; Walter, Howard & Fortna 2021). Following Collier and Hoeffler (2006), a reduced level of threat, *ceteris paribus*, should also be associated with reduced incentives for military expenditures as a proportion of GDP. In short, when UN peacekeepers are present, the expected need and benefits of high levels of military spending are lower.

The age-old “guns versus butter” calculus has been shown to be heavily weighted against women in a variety of outcomes (Elveren 2023). As further noted by Elveren, Moghadam, and Dudu (2022), increases in military spending as a proportion of GDP are also associated with decreased levels of female labor participation and increased gender inequality. Similarly, Webster, Chen, and Beardsley (2019, appendices) find that both levels and changes in military expenditures over time are associated with decreases in female empowerment levels. We posit here that reduced threat levels and more stable post-conflict outcomes associated with

peacekeeping, should consequently allow governments to allocate more resources towards services that expand women's inclusion, capabilities and autonomy.

In fiscal terms the conflict containment associated with UN peacekeeping can allow for security sector reforms which allow states to stabilize and reduce defense-spending trajectories. UN peacekeeping, especially what we would define as integrative missions, have an inherent focus on sustainable peace and state stabilization (Hirschmann 2012) including institution-building and delivering key state services (Otto et al. 2024). More-stable post-conflict governments should, consequently, be better able to move away from economic policies and expenditures likely to crowd out women's political inclusion and empowerment within post-conflict states. Furthermore, policies which facilitate female empowerment can lead to a virtuous cycle where women's empowerment further shapes inclusive post-conflict governance and positive peacebuilding outcomes (Gizelis 2011, Martin 2021).

Hypotheses

In our analyses below, we consider United Nations peacekeeping operations as a generalized "treatment" for states that have experienced civil conflict.⁷ After civil conflict, the presence of a peacekeeping operation should lead to increased empowerment above and beyond the negative impact of militarization. We similarly expect that post-conflict states with UN peacekeeping operations would have more direct support for the development of institutions that are better able to encourage the development of female empowerment indicators. We consequently hypothesize:

H1: UN PKO presence is associated with higher female empowerment.

For those states which have ended their civil conflicts without recidivism,⁸ we further expect that the "treatment" of a UN peacekeeping operation will allow for governments to have an indirect positive effect on gender empowerment by decreasing their post-conflict levels of militarization. Where:

H2: UN PKO presence reduces militarization leading to higher female empowerment.

⁷ Given that we focus on treatment effects, we do not consider troop deployment levels across or within conflict countries.

⁸ We examine both 5 and up to 10-year periods of post-conflict peace, below.

If such is the case, the presence of a UN peacekeeping operation should allow for both a direct increase in female empowerment levels (via Hypothesis 1) and an indirect increase in empowerment levels (via Hypothesis 2).

Research Design:

In our analysis we examine peacekeeping efforts and improved outcomes for women by comparing trends in female empowerment after UN involvement to post-conflict countries without UN PKOs. Our unit of analysis is the country-year, for all countries where civil war occurred over the period 1990-2021. Our analysis has two stages. First, we look at the trends in female empowerment in all conflict countries by using a difference-in-differences model (DID). DID is helpful to look at trends and the impact of the treatment variable—in our case UN intervention—on female empowerment, while using fixed effects for each individual year and controlling for possible factors that might influence the trends. A DID model compares the average of a response—in our case change in female empowerment—in a treatment group (i.e., countries that have had UN peacekeeping operation) to the average change in in the control group (i.e., post-conflict countries without UN peacekeeping operations). Our DID model for the panel data with two-way fixed effects can be written as:

$$Female\ Empowerment_{i,t} = \alpha + \beta \times (country\ dummies_i) + \gamma \times (year\ dummies_t) + \delta \times D_{i,t} + \theta \times X_{i,t} + \epsilon_{i,t},$$

where D is the treatment (i.e., whether a country i has had a UN mission before time t), and X is a vector of the other covariates for country i at time t.

Second, to evaluate the hypothesized mechanism through which UN PKOs might impact female empowerment (Hypothesis 2), we conduct a series of mediation analyses to examine if peacekeeping operation makes post-conflict states to see: a) improvements in their female empowerment as compared to conflict-levels and b) reductions in militarization as compared to conflict levels. We examine states (both with and without PKOs) that have maintained peace for at least five-years after conflict and up to 10-years after conflict.

Variable Measurements

Our primary dependent variable is *Female Empowerment*. In the DID analyses we aim to capture levels in female empowerment in countries that have experienced a peacekeeping intervention to countries that have not. Our measures is taken from V-Dem project, which defines “Women’s political empowerment ... as a process of increasing capacity for women, leading to greater

choice, agency, and participation in societal decision-making. The V-Dem index, measured on a 0-1 (low to high) interval scale incorporates three equally-weighted dimensions: fundamental civil liberties, women's open discussion of political issues and participation in civil society organizations, and the descriptive representation of women in formal political positions (Sundström *et al.* 2015).

We also consider alternative female empowerment measures including “gender equality in civil society,” capturing components of the composite index of female empowerment in V-Dem, also measured on a 0 to 1 scale from low to high.⁹ We also capture more economic forms of female empowerment, given that the literature on peacekeeping has moved towards exploring the impact of interventions on socio-economic structures (Bove, Salvatore, and Elia 2021). While the variable “gender equality in civil society” incorporates freedom to own private property rights, we also exclusively focus on the right to own and manage private property, including land. We expect that improvements in female empowerment should also reflect changes in property ownership which is an indicator of possible structural changes in social and economic conditions. Thus, we use the V-Dem variable for property rights for women, an interval scale from low to high (Djurfeldt 2020). Finally, we look at the opposite of inclusion and empowerment—exclusionary policies. We use the V-Dem variable of political exclusion by gender that captures exclusionary practices in spaces controlled by the state. This is a 0 to 1, interval-level variable with low values indicating a relatively positive situation and higher values a relatively worse situation (unlike the other V-Dem variables).

For the mediation analyses we consider changes in levels of the V-Dem female empowerment index (range 0-1) between the conflict and post-conflict periods. This variable captures the difference between the post-conflict year level of female empowerment (at time t) and the average empowerment level during conflict years (n):

$$\Delta Female Empowerment = Female Empowerment_t - \left(\frac{1}{n} \sum_{i=1}^n Female Empowerment \right)$$

To be included in the post-conflict analyses, states must have experienced at least three years of conflict or at least 2 years of intense conflict (cumulative intensity=1) within a 10-year period. In calculating the conflict-period average, we include up to the most recent 10 years of conflict. This variable ranges from -0.18 to 0.35 with a mean value of 0.10.

⁹ The V-Dem Female empowerment index is formed by taking the average of women's civil liberties index (v2x_genc1), women's civil society participation index (v2x_gencs), and women's political participation.

Independent Variables:

Given that we are interested in the “treatment” of a UN peacekeeping operation on conflict-states, our variable operationalizes the presence of the deployment of UNPKO troops based on Kathman’s (2013) UN troop deployment data. Our primary independent variable is *UN Peacekeeping Presence* which takes value of 1 for UN Peacekeeping Presence and 0, otherwise. To explore the possibility of different types of missions having different outcomes as suggested in research (e.g. Fortna 2004, Doyle and Sambanis 2006), we further distinguish between first generation and more encompassing integrative missions (Gizelis and Cao 2021: 264-5).

Integrative missions differ from traditional ones in three distinct ways (1) range of tasks: integrative missions encompass a wide range of tasks, including but not restricted to humanitarian assistance, disarmament and re-integration of combatants, security sector reform, promoting human rights and re-establishment of rule-of-law that can create a supportive environment from female empowerment (2) size of the mission: with integrative missions being significantly larger, thus having a broader reach within a country; and (3) deployment patterns: traditional missions are not deployed in rural areas where fighting often occurs, limiting the provision of security compared to integrative missions (Dorussen & Gizelis, 2013; Dorussen & Ruggeri, 2017). In our data we have in total 71 missions since 1945 out of which 30 integrative missions (approximately 42.30%). Since 2000, our data include 18 missions, 14 integrative and 4 first-generation missions (see Table 5, Appendix A).

Our second variable of interest, primarily used in mediation analysis as an intermediary (mediator) variable, is militarization.¹⁰ Given that we are focused on the societal impacts of peacekeeping on female empowerment both directly and indirectly through militarization, we choose to employ a macro-level measure of militarization. Following much of the literature on civil war and post-civil war conflict dynamics, we use military expenditure by country as percentage of GDP to capture the financial burden of higher military costs (Fearon and Laiton 2003, Collier and Hoeffler 2004). This variable is regularly used as measure of state coercive capacity, and militarization writ large (Hegre et al. 2001). We also examine the relative level of militarisation in a country by assessing how much of its societal resources are devoted to the military apparatus compared to civilian needs is the the sub-indicator *military_index* by the Global Militarization Index (GMI) from the Bonn International Centre for Conflict Studies

¹⁰ There is an important feminist literature noting that militarization is a nuanced concept (e.g., Enloe, 2016, Sjoberg and Via 2010, and Cockburn 2010). As noted above, we focus on the concepts of militarization as defined by the BICC GMI, SIPRI and V-Dem datasets. In so doing, we are able to more easily compare and contrast our findings with other large-N research in this area (e.g., Baronchelli, Biscione, and Caruso 2025, Elveren 2023; Elveren, Moghadam, and Dudu 2022).

(BICC). GMI consists of three sub-indicators and covers roughly 149 countries in on open-ended scale (von Boemcken et al 2023). The military sub-indicator compares military expenditures with GDP and health care expenditures and is highly correlated with the SIPRI military expenditure index ($r = 0.80$).¹¹ GMI draws on SIPRI data for military expenditure, the IMF for GDP, and the WHO for health data. This indicator gives us a better idea of the resource allocation and potential societal trade-offs facing post-conflict countries than absolute levels of military expenditures. To assess whether missing data for the covariates introduced major sample differences, we compare estimates for both measures, keeping the sample constant. These analyses show that although the coverage of covariates influence the sample size, we see no differences in the direction or general size of the coefficients (Table 6, Appendix A).

We argue here that a change in this ratio provides a proxy for changes in budget reallocation—that is the extent to which national economic resources are devoted to military activity relative to civilian priorities. Shifts in spending away from military expenditures also allow for a normative shift in the priorities that states allocate to military activity relative to economic resources (e.g., D’Agostino et al., 2011; Hudson et al., 2009). When conflict states lower their military spending, as noted above, it can lead to the potential reallocation of public resources that have the possibility to benefit women writ-large. For the mediation analyses, we additionally examine the change in militarization variables that are operationalized in the same manner as the change in female empowerment variable above.

Control variables. We focus on controls variables that might impact not only the levels of militarization, but also changes in female empowerment. First, we include *Democracy* to capture the political regime that can improve female empowerment in post-conflict countries, where 1 operationalizes the presence of democracy for states scoring 6 or greater on the Polity Scale, and 0 for non-democracy (i.e., values below 6) based on the Polity Project IV data (Marshall 2002). We also control for levels of development using two different measurements. We use *GDP per capita* to capture economic development using data from Gleditsch (2002), as well as an alternative measurement of development, *Infant Mortality Rate* (IMR), using the World Bank

¹¹ We also use as alternatives the SIPRI military expenditure measurement and the V-Dem militarization index to capture threats to civilian institutions and norms. The V-DEM index taps into the extent the threat of use of military force impacts the appointment or dismissal of the chief executive. While this measurement does not fully capture newer conceptualizations of militarization (militarization 2.0. see Jackson et al. 2021), it moves beyond the financial burden of military spending to capture more normative aspects of militarization. The military dimension index of V-Dem captures the extent to which the power of the chief executive in a country is controlled or threatened by military force. The interval index takes values from 0 to 1. V-Dem is virtually uncorrelated with ($r = -0.0124$ with SIPRI and $r = 0.04$ for *military_index*) suggesting that they capture different elements of militarization in a society.

Development Indicators. We also use population data (Gleditsch 2002) to capture the size of population since smaller countries have lower chances of experiencing conflict and higher chances for improvements in social and economic development including female empowerment.

Finally, we include cumulative battle deaths data to capture the intensity of the conflict. Very destructive conflicts with high levels of casualties can lead to higher levels of social capital destruction and undermine female empowerment since sectors that female-intensive such as education and health are targeted (Pettersson et al. 2021). We employ the `bd_best` variable from the UCDP battle-deaths dataset (Davies et al. 2023) to capture war trauma up through last 10 years of the conflict. We further control for previous levels of female empowerment using the V-Dem data. Finally, we control for the presence of a ceasefire or peace agreement in a conflict state where 1= the presence of such a negotiated settlement for any active conflict in the state as coded by UCDP, zero otherwise (Pettersson 2019).

Analysis and Discussion

We use two different methods to evaluate our hypotheses that UN presence is associated with positive changes in female empowerment in post-conflict countries. First, we use difference-in-differences estimators to compare the changes in outcomes (in our case, changes in levels of female empowerment) over time in countries that have experienced a UN mission (the treatment group) and countries that have not experienced UN missions (the comparison group). Based on a simple regression analysis of only two cross-sections of data (1992 and 2022), we test the significance of a DID estimator, $D_{(i,t)}$, which is captured by an interaction term of a dummy variable for the treatment group (PKO receiving countries) and a dummy variable for the post-treatment period (Post-PKO period, equal to 1 for year 2022; 0 for 1992). We also separate the missions to integrative and 1st generation to capture possible changes in mandates and activities that might impact female empowerment.

Table 1 reports on the key findings indicating that controlling for other factors that might impact changes in the levels of female empowerment, we find that conflict countries that had UN involvement (D post) record higher levels of female empowerment post-conflict compared to countries without UN presence. The impact of UN peacekeeping presence is significant and in the expected direction across all models. Table 1 also suggests that there is limited evidence that integrative and 1st generation missions have qualitatively different effects on female empowerment trends. Institutional changes (measured as democratic institutions) improve female empowerment (in –all models), a finding that is supported in recent studies

Table 1: DID Analysis Between Countries using military expenditures:

	Female empowerment						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
D post (all PKOs)	0.076*** (0.007)			0.049*** (0.007)			
D post (integrative)		0.080*** (0.008)			0.053*** (0.008)		0.016*** (0.006)
D post (first gen.)			0.082*** (0.010)			0.037*** (0.010)	
Mil.exp.GDPHealth				-0.010*** (0.003)	-0.009*** (0.003)	-0.011*** (0.003)	-0.003 (0.002)
Democracy				0.045*** (0.004)	0.042*** (0.004)	0.043*** (0.004)	0.018*** (0.003)
GDPpc				-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00001*** (0.00000)	-0.00000*** (0.00000)
IMR				-0.010 (0.021)	-0.017 (0.022)	-0.029 (0.022)	-0.012 (0.015)
Log Pop				-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)
Conflict intensity				0.017* (0.009)	0.015* (0.009)	0.019** (0.009)	0.0002 (0.006)
Female empowerment lag							0.623*** (0.017)
Ceasefire	0.542*** (0.035)	0.547*** (0.035)	0.545*** (0.035)	1.121*** (0.276)	1.220*** (0.289)	1.422*** (0.295)	0.531*** (0.206)
Observations	3,662	3,572	3,474	1,610	1,549	1,488	1,548
Log Likelihood	4,394.492	4,329.936	4,201.719	2,587.983	2,489.642	2,415.495	3,022.208
Akaike Inf. Crit.	-8,422.984	-8,293.871	-8,037.438	-4,945.967	-4,749.283	-4,600.989	-5,812.417
Note:	*p<0.1; **p<0.05; ***p<0.01						

(Chen et al 2019). To assess whether missing data for the covariates introduced major sample differences compare estimates for models 1-3 (Table 1) and models 4-6 (Table 1) keeping the sample constant. These analyses show that although the coverage of covariates influence the sample size we see no differences in the direction or general size of the coefficients (Table 7, Appendix A).

We also explored the trends looking at military expenditures in previous years (Table 2) without any significant impact on the effect of the main treatment (UN presence) on female empowerment or any changes in the control variables.

Table 2: DID Analysis Between Countries using lagged military expenditures

	Female empowerment			
	(1)	(2)	(3)	(4)
D post (all PKOs)	0.047*** (0.007)		0.043*** (0.007)	
D post (integrative)		0.052*** (0.009)		0.046*** (0.009)
Mil.exp.GDPHealthlag	-0.012*** (0.003)	-0.008** (0.003)		
Mil.exp.GDPHealthlag2			-0.012*** (0.003)	-0.004 (0.003)
Democracy	0.046*** (0.004)	0.042*** (0.004)	0.046*** (0.004)	0.042*** (0.004)
GDPpc	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)
IMR	-0.022 (0.021)	-0.023 (0.023)	-0.028 (0.022)	-0.016 (0.023)
Log Pop	-0.00000* (0.00000)	-0.00000* (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)
Conflict intensity	0.012 (0.009)	0.011 (0.009)	0.013 (0.009)	0.012 (0.009)
Peace agreement	1.285*** (0.288)	1.287*** (0.302)	1.364*** (0.297)	1.190*** (0.312)
Observations	1,535	1,474	1,459	1,398
Log Likelihood	2,509.303	2,410.444	2,427.634	2,326.221
Akaike Inf. Crit.	-4,790.606	-4,592.888	-4,631.268	-4,428.442
<i>Note:</i>		*p<0.1; **p<0.05; ***p<0.01		

The DID analyses in Tables 1, and 2 above, suggest strong support for our first hypothesis, namely that UN peacekeeping is associated with higher levels of female empowerment above and beyond any possible negative impacts of militarization.

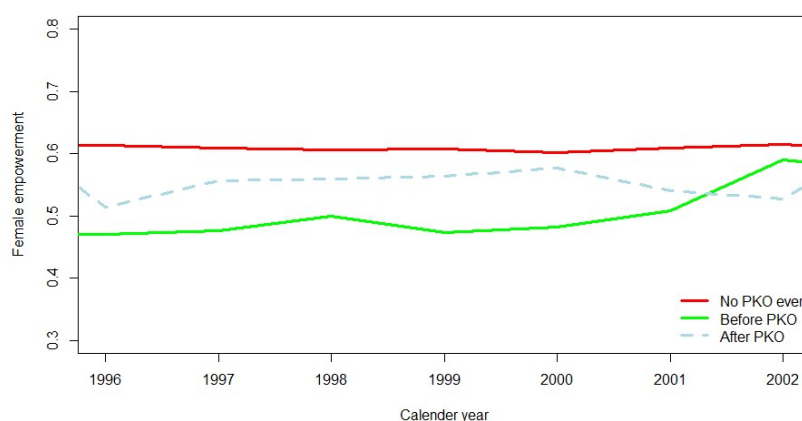
DID, as a quasi-experimental method, mitigates possible effects of endogeneity and reverse causality. DID, however, is sensitive to potential problems such as reversion to the mean and other divergent influences apart from the specific treatment or policies.¹² DID also assumes the parallel trends where the average change in the control group represents the counterfactual change in the treatment group if there were no treatment. In order to assume that the change in the control group can represent the counterfactual change in the treatment group if there were no treatment, it would have to be the case that divergent changes in the treatment group arise

¹² While difference-in-difference suffers from several shortcomings, it has its advantage such as its simplicity and the ability to compare otherwise heterogeneous individuals (Bertrand, Duflo, and Mullainathan 2004).

only due the treatment and not because of other differences. The standard way to evaluate this is to compare trends in the group yet to be treated to observations that are never treated. Our data also present a challenge in so far that different countries receive the treatment at different periods. Therefore, in Figure 3 we plot average female empowerment by calendar year for three groups of countries, depending on their eventual treatment status for the period 1996-2002, where we have a meaningful number of cases before treatment, after treatment and without treatment. The red line displays average female empowerment for countries that never experienced UN involvement. The increase over the period is smaller, since this group starts from a higher average and includes high income countries such as the US.¹³ The green line plots countries with subsequent UN presence before UN missions. The dotted blue line plots average female empowerment in countries after UN intervention. The increase after UN intervention is clearly higher, although one might contend that countries before the treatment also grow faster, as they start from a lower base.

A more formal test considers whether the remaining variation once we address heterogeneity by country and year fixed effects provide any evidence of systematic differences between countries yet to be treated and countries never treated. In Figure 1, we find no evidence for this, as the interactions for countries yet to be treated within a calendar year do not provide a significant improvement over a model without the interactive terms.

Figure 1: Plot of DID



We have also formally tested the parallel trend assumption by including interactions between the so-called leads with the DID indicator in a panel DID setting. We find strong

¹³ Also included in our data are states that do not see peacekeeping--somewhat controversially, 9/11 and the ensuing war in Afghanistan is coded in UCDP as a civil war with the incompatibility in the US.

evidence for the parallel trend assumption (see A Table 1 in Appendix). More specifically, a formal test for the parallel trend assumption is to interact the DID treatment variable with time dummies: here the dummy variables indicate whether, for a country included in the analysis, this year is one year (t-1) before the PKO started, two year (t-2) before PKO, three year (t-3), ..., so on and so forth, for years before PKO – their interactions with the DID indicator are often called *leads*. As such, we conclude that there is no evidence that we see divergent trends before the onset of missions in countries that later experience UN involvement from countries that never do.

A potentially more serious challenge to our analyses is the fact that peacekeeping is not randomly assigned and factors that influence “where peacekeepers go” could be related to differences in female empowerment (Diehl, Druckman, and Mueller, 2024; Gilligan and Stedman 2003; Reeder, Hendricks, and Goldring 2022). Although we control for factors highlighted in the existing literature, the observed controls included may not be sufficient in so far as unobserved omitted variables could be related to both UN peacekeeping and gender empowerment in ways that might affect our analysis. For example, the UN might not deploy in countries where the military has more control of the government, and this could be correlated with lower female empowerment. To consider the robustness of our coefficients to potential omitted variable bias we use the approach suggested by Oster (2019), based on coefficient change and moments of the R-square for observed control variables. Oster (2019) suggests that an informative measure of robustness is how large the selection or impact of unobserved variables would have to be relative to that of observed variables in order for the term of interest to become undistinguishable from 0. For model 4 in Table 1, we find selection on unobservables would have to be nearly 3 times larger than the selection on the observed control variables (delta value is 3.11 using the Oster estimation method). For model 2 in Table 2, the selection on unobservables should also be 3 times larger than the selection on the observed controls (delta value 3.12). As these are the most prominent features in existing research and Bellows and Miguel (2009) suggest that the impact of unobservables could be assumed to be roughly the same as observables, it thus seems highly unlikely that selection of unobserved variables would overturn our findings.

We further control for different conceptualizations of female empowerment to capture more narrowly defined dimensions of female empowerment. Tables A2a & 2b (Tables 2a-2b in Appendix) summarize the key findings. Models 1 and 2 use alternative measurements of female empowerment: “property rights” (Model 1) and “gender equality in civil society” (Model 2) respectively. In both models 1 and 2, the DID estimator, as hypothesized, is positive and

significant. Model 3 uses the “political exclusion by gender” variable. As expected, the DID estimator is negative and significant, indicating that countries with PKO presence have experienced improvements in reducing exclusionary policies over time compared to countries without UN presence. When we look at militarization (measured using *military_indicator* in Table 2a and impact of military on chief executive in Table 2b), it has a negative effect on indicators of female empowerment (Models 1 & 2), but as expected a positive and significant effect in increasing exclusionary policies in Model 3.

Finally, looking at trends using other measurements of militarization (see Appendix A and Tables A3 & A4), the levels of military spending measured as % GDP per capita (SIPRI measurement), the DID estimator remains positive and significant for all types of missions, but militarization has a significant and positive impact on levels of female empowerment contrary to our theoretical expectations. When we use the V-Dem measurement that captures institutional threats to the executive, militarization has the expected significant and negative effect on female empowerment. While there is no substantive difference between types of missions, integrative missions have a larger impact on female empowerment trends.

The Mediated Post-Conflict Effects of UN Peacekeeping on Female Empowerment

In the next stage of our analysis, we consider all civil conflicts from 1990-2021 with at least a five-year peace period. For a state to be included in the post-conflict analysis, we require it to have experienced a minimal level of active conflict. States that have experienced at least 3 years of conflict or at least 2 years of intense conflict (cumulative intensity=1) within a 10-year period were included in the analyses.

In these analyses, we focus on the direct impact of the presence of UN peacekeeping on changes in female empowerment levels (as described above) and the impact of UN peacekeeping on changes in militarization. In calculating average levels of variables during the conflict period we focus on the last 10 years of an active conflict. Thus, averages may be calculated over 2 to 10 years depending upon the number of active conflict years during the last period of the conflict.¹⁴

To facilitate comparison with the DID analyses, for the mediation analyses below, we primarily focus on the of change in military expenditure as a proportion of GDP and health care

¹⁴ Only active conflict years are included in the conflict period. Therefore, there may be less than 10 observations within the 10-year period (e.g., 1990, 1991, 1994, 1995, 1997, 1998, 1999 -not 1992, 1993 if those years were not active conflict years as coded by UCDP). When there were multiple UCDP conflict years for a state, we chose the most-intense conflict according to the conflict-intensity variables by UCDP.

expenditures as operationalized by the BICC dataset (Δ Military Spending BICC). We also run robustness tests examining the direct and indirect effects of militarization as operationalized both by military expenditures as a proportion of GDP from the SIPRI dataset and through changes in level of military control of the executive (Δ Militarization VDEM) as operationalized by the VDEM dataset (Appendix B). The change in militarization levels (for all data sources) is operationalized in the same manner as the change in female empowerment levels, above.

We consider two separate post-conflict peace situations in estimating the direct and indirect effects of UN peacekeeping on militarization and female empowerment using mediation analysis for observational data (Baron and Kenny 1986). First, we focus on the *immediate period* of peace where all 14 states with available data have experienced at least five years with less than 25 deaths from all civil conflicts. Next, we focus on a more *consolidated peace* experiencing at least 7-10 years with less than 25 deaths. In essence, our analyses allow us to compare the impacts of peacekeeping on female empowerment in the immediate post-conflict period to an extended, more consolidated, peaceful environment.

Our first series of mediation analyses examine whether the presence of integrative UN peacekeeping missions, by moderating changes in military spending, impacts changes in female empowerment for 24 post-conflict countries.¹⁵ We theorize that the UN has both direct and indirect effects on empowerment as noted above.

Figure 2 shows the direct, indirect and total effects of Integrative UN peacekeeping during the five-year post conflict period.¹⁶ The mediated effects, standard errors, and significance levels are presented above the arrows, and the direction and significance of the regression coefficients are below the arrows. The full, mediation analyses models are presented in Appendix B.¹⁷ Our findings suggest that, as expected, there is both a direct and indirect significant empirical relationship between UN peacekeeping, militarization and female empowerment.¹⁸ For the immediate post- conflict period, states that received a UN presence

¹⁵ This includes all available data. For a country and year list see the Appendix A.

¹⁶ Figures 4 through 7: Mediation Analysis of UN peacekeeping on changes to female empowerment. ***p < .01, **p < .05, *p < .10 (one-tailed tests). 95% confidence intervals in brackets. UN effects on Female Empowerment outside of triangle. Direction of variable relationships inside. Full results are reported in Appendix B.

¹⁷ The mediation analyses were estimated in Stata 17 using the *medeff* estimation command.

¹⁸ For the immediate five-year post-conflict period, the change in female empowerment levels ranges from -0.17 to 0.34 with a mean of 0.08 and a standard deviation of 0.11. For the 7-10 year post-conflict period, changes in female empowerment range from -0.18 to 0.35 with a mean of 0.12 and a standard deviation of 0.14.

Figure 2: The Impact of Integrative UN Peacekeeping on pre versus post conflict changes in Female Empowerment Levels (5 years post conflict).

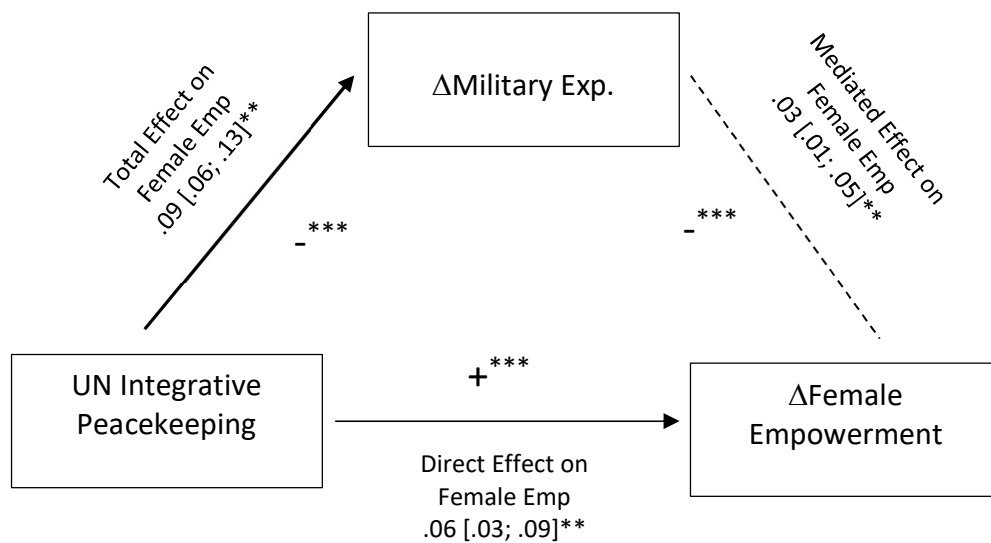
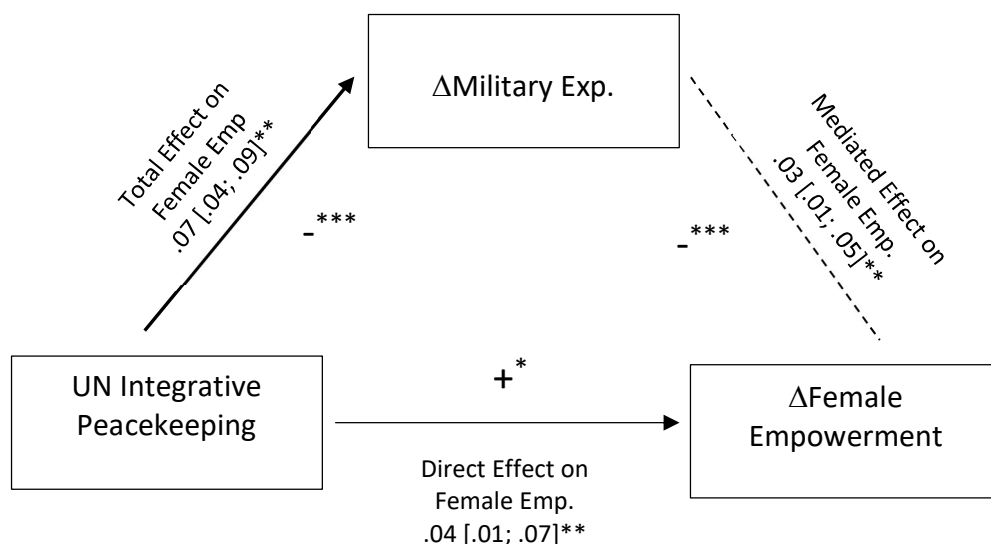


Figure 3: The Impact of Integrative UN Peacekeeping on pre versus post conflict changes in Female Empowerment Levels (10 years post conflict).



had a direct 0.06 unit increase in female empowerment levels (an approximate 0.43% standard deviation increase). In addition, the presence of peacekeeping leads to a mediated 0.03-unit increase. The total effect (both direct and indirect) of the peacekeeping on female empowerment for states in the immediate-post conflict period is 0.09 units. Approximately a thirty-two of the total effect on empowerment is the mediated impact of the UN increasing empowerment via decreasing military expenditures as a percentage of GDP. In real terms, our results suggest that a post-conflict country beginning at-average levels of female-empowerment without receiving a UNPKO would experience a predicted change of about 0.104 in female empowerment as compared to a predicted increase of 0.194. This an 86% larger increase of female empowerment levels for post-conflict peacekeeping receiving states.

For states that experience up to ten-years of post-conflict peace (Figure 3), integrative UN PKO presence has a continued positive direct and indirect effect on female empowerment although the overall impact is slightly lower than for the immediate post-conflict period. These findings suggest, not surprisingly, that the benefits of past peacekeeping are likely discounted over time. For the longer 10-year post conflict period, integrative UN peacekeeping increases empowerment levels by a total of 0.04 units with approximately 41% of the total effect from the indirect impact of peacekeeping on empowerment via a negative association between peacekeeping and militarization.

In summary, the results presented in Figures 2 and 3 provide considerable support for our hypotheses. Both time periods show the direct and indirect impact of peacekeeping on changes in women's empowerment levels. However, the total peacekeeping effects are strongest during the immediate post-conflict period. The 10--year period, notably, accounts for a larger share of peacekeeping on the total effect on women's empowerment changes. We suggest that while the direct effect of peacekeeping attenuates over time, the indirect effects are especially important. This may be because changes in military spending create a slower, longer-term pathway through which peacekeeping can influence women's empowerment.¹⁹

¹⁹ As also illustrated in the full models presented in Appendix B, Tables 2 and 3, societal pushes towards female empowerment in a post conflict environment may be dampened by high levels of spending on the military. The percentage of military spending as a proportion of health expenditures has a significant, negative association with female empowerment ($\beta = -0.004^{***}$ and -0.003^{***} , respectively for the five and 10-year post-conflict periods). Possibly peacekeeping's negative association with post-conflict military spending may play a vital role in not only fostering female empowerment but also in allowing for the diversification of state expenditures towards different societal goals.

Importantly, when we examine the presence of *any* peacekeeping versus no peacekeeping, the impacts are similarly important, but slightly less strong than for the integrative missions. For the five-year post conflict period, peacekeeping operations have a total effect of 0.06, a direct effect of 0.04 and an indirect effect of 0.02. For the ten-year post conflict period, the total UN PKO effect on changes in female empowerment are 0.08, the direct effect is 0.06 and the indirect effect 0.02.

An example of these dynamics can be seen in post-conflict Liberia. The United Nations Mission in Liberia (UNMIL) it may be argued, allowed the government to maintain lower levels of military expenditures as a ratio of GDP and Liberia has recorded higher levels of female empowerment compared to much wealthier countries. Sierra Leone provides another example of how UN peacekeeping may negatively affect militarization levels and both directly and indirectly impact female empowerment. In the case of Sierra Leone, during the first five years of post-conflict peace, female empowerment increases 33% and militarization levels drop 32%. Interestingly, for Sierra Leone, there is no change in the relatively low democracy levels over this period, suggesting that UN peacekeeping may have allowed the state the space to divert productive resources even in the absence of democratic institutional improvement. Our data further suggest that there is evidence that every single country that did *not* record increases in female empowerment within 10 years from the termination of the conflict also did not have a UN peacekeeping mission.²⁰

Sensitivity Analyses and Robustness Tests

We perform sensitivity analyses on our estimations above²¹ and consider alternative measures of military expenditures. The goal of sensitivity analyses in causal mediation analysis is to “quantify the degree to which the key identification assumption must be violated for a researcher’s original conclusion to be reversed. If an inference is sensitive, a slight violation of the assumption may lead to substantively different conclusions” (Imai, Keele, Tingley 2010, p. 315). Using the *medsens* post-estimation test in Stata, we find that the rho (i.e., the correlation between the residuals) necessary for the average causal mediation effect to equal zero is for the 5

²⁰ While our data and analyses here suggest the lack of UN peacekeeping is associated with the lack of improvements in post-conflict female empowerment levels, we do recognize that the presence of UN peacekeeping, is not always associated with positive outcomes. In addition to the presence of sexual exploitation and abuse, some literature has noted that the presence of militarized UN peacekeeping operations can be associated with militaristic, non-pacific or authoritarian outcomes within conflict and post-conflict states (e.g., Berger 2015, Russo 2015, Billerbeck et al 2025).

²¹ In their macro analysis, Fritz and MacKinnon (2007) note that the median sample size for the casual mediation analyses in their study was 159.5 with a lower and upper quartile of 86 and 325. Our N is slightly below the median.

and 10-year post-estimation results are a robust 0.32 for the immediate post-conflict period and 0.21 for the longer period. Overall, the sensitivity analyses suggest that we can have reasonable confidence in mediation analyses results. In essence, the mediation effect would be eliminated only if an unobserved variable had a fairly strong residual correlation of approximately 0.32 between the mediator and outcome equations for the post-5-year analyses and a meaningfully strong 0.21 for the 10-year post conflict period.

The impact of UN peacekeeping, for both integrative and non-integrative peacekeeping, is similarly strong when using the SIPRI measure of military expenditures as a proportion of GDP. These models, presented in Appendix B, Tables 3, 4, and online Appendix Tables 1 and 2 further support our hypotheses in that UN peacekeeping, whether including all missions or integrative missions, has potentially important impacts on pre-to post female empowerment levels by facilitating decreases in the pre to post-conflict militarization levels. We also run the mediation models with changes in the VDEM militarization measure (Online Appendix 3) and find for both all and integrated missions, as expected, UN peacekeeping directly and negatively affects militarization levels, that militarization negatively impacts female empowerment levels, but that there is no significant *indirect* impact of UN peacekeeping through decreasing militarization for VDEM. The summary findings of the mediation analyses suggest that UN peacekeeping is associated with decreases in military expenditures as a proportion of post-conflict states' economic outputs rather than decreases in militarized governmental control. These empirical results suggest that the impact of all peacekeeping, especially integrative peacekeeping, directly and indirectly benefits post-conflict female empowerment in important ways.

Conclusions

While much of the prior literature emphasizes the ability of peacekeeping to reduce violence, prevent conflict recurrence, protect civilians, or support political transitions, we extend this research by identifying militarization as a mechanism through which peacekeeping can affect downstream social and political outcomes. Peacekeeping is not only valuable because it directly supports inclusive institutions or gender-sensitive policies; it may also impact the political economy of post-conflict governance. By reducing the perceived need for high levels of military spending, peacekeeping can weaken the post-conflict “guns versus butter” tradeoff that often has especially pernicious effects on women.

Using a variety of estimation techniques with data from conflict and post-conflict periods, our empirical analyses suggest that conflict states that have received the “treatment” of UN peacekeeping are associated with higher female empowerment levels. Importantly, in the Difference in Differences estimations, we see that the impact of peacekeeping on female empowerment levels is robust across different types of controls for militarization. Militarization, especially as regards the military control of the executive, was shown to have a generally negative impact on female empowerment levels.

The results provide considerable support for both of our theoretical hypotheses. Our findings indicate that post-conflict states that have had a UN peacekeeping presence are more likely to see decreased militarization levels and increased female empowerment than those states that have not benefited from UN peacekeeping. The impact of peacekeeping on female empowerment has two significant empirical pathways in our mediation analyses, the first is direct—where peacekeeping significantly increases empowerment levels. The second of these is indirect—where peacekeeping significantly decreases the post-conflict military spending levels that significantly dampen female empowerment. These effects endure for a more extended post-conflict period but with a lower impact of UN peacekeeping on longer-term changes in female empowerment levels.

The practical and policy implications for women in post-conflict states are substantial. For five years post-conflict, a state with a PKO would expect to have an 86% higher increase in empowerment levels with an expected absolute difference of 0.09 on the 0-1 V-Dem female empowerment score as compared to a non-PKO-receiving state. This is approximately equivalent to the difference between post-conflict’s Tajikistan in 2001 with a female empowerment score of .47 and the PKO-receiving Cambodia in 2000, with a score of .56. This difference between a relatively mid-level to moderately high empowerment score is not merely statistically significant; it corresponds to a visible shift in women’s civil liberties, civil-society participation, and political representation.

These findings have important implications for peacekeeping practice. When peacekeeping reduces threat perceptions, supports security-sector reform, and helps states avoid renewed militarization, it may also create political and budgetary space for the expansion of civilian services and institutions that support women’s capabilities, civil liberties, civil-society participation, and political representation. This implies that disarmament, demobilization and reintegration (DDR) efforts, civilian oversight, and the stabilization of post-conflict security

environments are not gender-neutral activities. They may be central to whether women's empowerment gains are sustained after conflict.

Finally, it is important to note that the positive impact of UN peacekeeping on female empowerment, and its negative impact on militarization, is established above and beyond the impacts of institutional democracy, an important control in all of the analyses. The positive association between UN peacekeeping and female empowerment, and the negative association between peacekeeping and militarization, are not simply artifacts of democratization. Rather, the findings presented here suggest that peacekeeping may independently shape post-conflict empowerment trajectories by helping states move away from militarized expenditure patterns. For post-conflict societies, this means that the benefits of peacekeeping may extend beyond preventing renewed war: peacekeeping can also contribute to the conditions under which women's empowerment becomes more likely to thrive.

References:

- Acemoglu, D. and Robinson, J.A. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Books.
- Andersen, Louise Riis. 2018. "The HIPPO in the room: the pragmatic push-back from the UN peace bureaucracy against the militarization of UN peacekeeping," *International Affairs*, 94(2) pp. 343–361.
- Autesserre, S. 2010. *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding*. New York: Cambridge University Press.
- Autor, D.H., 2003. Outsourcing at will: The contribution of unjust dismissal doctrine to the growth of employment outsourcing. *Journal of Labor Economics*, 21(1), pp.1-42.
- Bakken, I.V. and Buhaug, H., 2021. Civil war and female empowerment. *Journal of Conflict Resolution*, 65(5): 982-1009.
- Baron, R.M. and Kenny, D.A., 1986. The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), p.1173.
- Baronchelli, A., Biscione, A. and Caruso, R., 2025. Exploring the relationship between military engagement and income inequality in the LAC region (1990-2022). *Economics Bulletin*, 45(2), pp.979-987.
- Bates, R.H. 2015. *When Things Fell Apart*. Cambridge: Cambridge University Press.
- Beardsley, K., & Gleditsch, K. S. (2015). Peacekeeping as conflict containment. *International Studies Review*, 17(1), 3–28.
- Bellows, J. and Miguel, E., 2009. War and local collective action in Sierra Leone. *Journal of public Economics*, 93(11-12), pp.1144-1157.
- Benson, M. and Gizelis, T.I., 2020. A gendered imperative: Does sexual violence attract UN attention in civil wars?. *Journal of Conflict Resolution*, 64(1), pp.167-198.
- Berger, C. 2015. The unintended consequences of UN peacekeeping in post-war South Sudan: Why everyone wants a uniform. In B. R. O'Bannon (Ed.), *Reassessing the Responsibility to Protect*. pp. 142–150.

- Bertrand, M., Duflo, E. and Mullainathan, S., 2004. How much should we trust differences-in-differences estimates?. *The Quarterly Journal of Economics*, 119(1), pp.249-275.
- Berry, M.E., 2017. Barriers to women's progress after atrocity: Evidence from Rwanda and Bosnia-Herzegovina. *Gender & Society*, 31(6), pp.830-853.
- Besley, T. and T. Persson. 2010. State Capacity, Conflict, and Development. *Econometrica* 78 (1): 1–34.
- Blair, R.A., 2021. UN Peacekeeping and the Rule of Law. *American Political Science Review*, 115(1), pp.51-68.
- Blair, R.A. , Di Salvatore, J., Smidt H.M., 2023. UN Peacekeeping and Democratization in Conflict-Affected Countries. *American Political Science Review*. 2023;117(4):1308-1326.
- Blanton, S.L., Peksen, D. and Blanton, R., 2023. The Impact of Peacekeeping Missions on Women's Empowerment. *Political Research Quarterly*, 76(4), pp.1872-1887.
- Bove, V., Salvatore, J.D. and Elia, L., 2021. UN Peacekeeping and Households' Well-Being in Civil Wars. *American Journal of Political Science*.
- Cockburn, C., 2010. Gender relations as causal in militarization and war: A feminist standpoint. *International Feminist Journal of Politics*, 12(2), pp.139-157.
- Cohen, D.K. and Karim, S.M., 2021. Does more equality for women mean less war? rethinking sex and gender inequality and political violence. *International Organization*, pp.1-31.
- Collier, P., Elliott, V. L., Hegre, H., Hoeffler, A., Reynal-Querol, M., & Sambanis, N. (2003). *Breaking the conflict trap: Civil war and development policy*. World Bank and Oxford University Press.
- Collier, P., & Hoeffler, A. (2006). Military expenditure in post-conflict societies. *Economics of Governance*, 7(1), 89–107.
- d'Agostino, G., Dunne, J.P. and Pieroni, L., 2017. Does military spending matter for long-run growth?. *Defense and Peace Economics*, 28(4), pp.429-436.
- Dahlum, S. and Wig, T., 2020. Peace above the glass ceiling: The historical relationship between female political empowerment and civil conflict. *International Studies Quarterly*, 64(4), pp.879-893.

- Davies, S., Pettersson, T. and Öberg, M., 2023. Organized violence 1989–2022, and the return of conflict between states. *Journal of Peace Research*, 60(4): 691-708.
- Demeritt, J.H.R., Nichols, A.D., Kelly, E.G. 2014. Female Participation and Civil War Relapse, *Civil Wars*, 16 (3): 346-368.
- Diehl, P.F., Druckman, D. and Mueller, G.B., 2024. *When peacekeeping missions collide: balancing multiple roles in peace operations*. Oxford University Press.
- Doyle, M.W. and N. Sambanis. 2006. Making War and Building Peace: United Nations Peace Operations. Princeton University Press.
- Dowler, L., 2012. Gender, militarization and sovereignty. *Geography Compass*, 6(8):.490-499.
- Djurfeldt, A.A., 2020. Gendered land rights, legal reform and social norms in the context of land fragmentation-A review of the literature for Kenya, Rwanda and Uganda. *Land Use Policy*, 90, p.104305.
- Duflo, E. 2012. Women Empowerment and Economic Development, *Journal of Economic Literature*, 50 (4): 1051-1079.
- Dunne, J.P., 2012. Military spending, growth, development and conflict. *Defence and Peace Economics*, 23(6), pp.549-557.
- Fearon, J., & Laitin, D. 2003. Ethnicity, insurgency, and civil war. *American Political Science Review*, 97(1), 75–90.
- Flores-Macías, G.A. and Zarkin, J., 2021. The militarization of law enforcement: Evidence from Latin America. *Perspectives on Politics*, 19(2): 519-538.
- Fortna, V. P. (2004). Does Peacekeeping Keep Peace? International Intervention and the Duration of Peace after Civil War. *International Studies Quarterly*, 48(2), 269–292.
- Fortna, V. P. 2008. *Does peacekeeping work? Shaping belligerents' choices after civil war*. Princeton University Press.
- Fuest, V. 2008. ‘This is the Time to Get in Front’: Changing Roles and Opportunities for Women in Liberia, *African Affairs*, 107 (427): 201-224.

Elveren, A.Y. and Moghadam, V.M., 2019, June. The impact of militarization on gender inequality and female labor force participation. *Economic Research Forum* (ERF).

Elveren, A.Y., Moghadam, V.M. and Dudu, S., 2022, September. Militarization, women's labor force participation, and gender inequality: Evidence from global data. In *Women's Studies International Forum* (Vol. 94: 102621). Pergamon.

Elveren, A. Y. (2023). *Does militarization hinder female labor income share? Peace Economics, Peace Science, and Public Policy*, 30(1), 55–75.

Enloe, C., 2004. *The Curious Feminist*. Berkely, CA: University of California Press.

Enloe, C., 2016. *Globalization and Militarism: Feminists make the link*. Rowman & Littlefield.

Gauthier Vela, V., 2021. MINUSMA and the Militarization of UN Peacekeeping. *International Peacekeeping*, 28(5), 838–863.

Hadzic, D. and Tavits, M., 2021. Wartime violence and post-war women's representation. *British Journal of Political Science*, 51(3), pp.1024-1039.

Hegre, H., Ellingsen, T., Gates, S., & Gleditsch, N. P. 2001. Toward a democratic civil peace? Democracy, political change, and civil war, 1816–1992. *American Political Science Review*, 95(1), 33–48.

Hegre, H. and Nygård, H.M., 2015. Governance and Conflict Relapse. *Journal of Conflict Resolution*, 59(6): 984-1016.

Hegre, H., Hultman, L. and Nygård, H.M. 2019. Evaluating the Conflict-Reducing Effect of UN Peacekeeping Operations. *Journal of Politics*, 81(1): .215-232.

Hossain, N., 2018, May. Post-conflict ruptures and the space for women's empowerment in Bangladesh. In *Women's Studies International Forum* (Vol. 68, pp. 104-112). Pergamon.

Howard, L.M. 2008. *UN Peacekeeping in Civil Wars*. Cambridge: Cambridge University Press.

Hudson, V.M., Caprioli, M., Ballif-Spanvill, B., McDermott, R. and Emmett, C.F., 2009. The heart of the matter: The security of women and the security of states. *International Security*, 33(3), pp.7-45.

- Hughes, M.M. and Tripp, A.M., 2015. Civil war and trajectories of change in women's political representation in Africa, 1985–2010. *Social forces*, 93(4), pp.1513-1540.
- Fritz, Matthew S ; MacKinnon, David P. 2007. Required Sample Size to Detect the Mediated Effect. *Psychological Science*, 18(3): 233-239.
- Gizelis, T.I. 2011. A Country of their Own: Women and Peacebuilding, *Conflict Management and Peace Science*, 28 (5): 522-542.
- Gizelis, T.I. and Cao, X., 2021. A security dividend: Peacekeeping and maternal health outcomes and access. *Journal of Peace Research*, 58(2), pp.263-278.
- Gleditsch, K.S., 2002. Expanded trade and GDP data. *Journal of Conflict Resolution*, 46(5), pp.712-724.
- Gleditsch, N.P., Wallensteen, P., Eriksson, M., Sollenberg, M. and Strand, H., 2002. Armed conflict 1946-2001: A new dataset. *Journal of Peace Research*, 39(5), pp.615-637.
- Hirschmann, G. 2012. Organizational learning in United Nations' peacekeeping exit strategies. *Cooperation and Conflict*, 47(3), 368–385.
- Huber, L., & Karim, S. 2018. The internationalization of security sector gender reforms in post-conflict countries. *Conflict Management and Peace Science*, 35(3), 263–279.
- Jackson, S.T., Crilley, R., Manor, I., Baker, C., Oshikoya, M., Joachim, J., Robinson, N., Schneiker, A., Grove, N.S. and Enloe, C., 2021. Militarization 2.0: communication and the normalization of political violence in the digital age. *International Studies Review*, 23(3), pp.1046-1071.
- Joshi, D.K., Hughes, B.B. and Sisk, T.D., 2015. Improving governance for the post-2015 sustainable development goals: scenario forecasting the next 50 years. *World Development*, 70, pp.286-302.
- Joshi, M. and Olsson, L., 2021. War termination and women's political rights. *Social Science Research*, 94, p.102523.
- Kang, A.J. and Kim, N.K., 2020. Territorial threat and women's legislative representation. *Democratization*, 27(2), pp.340-358
- Karim, Sabrina, and Kyle Beardsley. "Explaining Sexual Exploitation and Abuse in Peacekeeping Missions: The Role of Female Peacekeepers and Gender Equality in Contributing Countries." *Journal of Peace Research* 53, no. 1 (2016): 100–115.

- Kathman, J.D., 2013. United Nations Peacekeeping Personnel Commitments, 1990-2011 *Conflict Management and Peace Science*, 30, pp. 532-549.
- Kathman, J., & Benson, M., 2019. Cut Short? United Nations Peacekeeping and Civil War Duration to Negotiated Settlements. *Journal of Conflict Resolution*, 63(7), 1601-1629.
- Imai, Kosuke ; Keele, Luke ; Tingley, Dustin. (2010). A General Approach to Causal Mediation Analysis. *Psychological Methods*, 15(4), 309–334.
- Krasner, S.D., 2005. Building democracy after conflict: The case for shared sovereignty. *Journal of Democracy*, 16(1), pp.69-83.
- Maekawa, Wakako. (2022). Verification of Peace Accords and Military Expenditures in Post-Conflict Societies. *Defence and Peace Economics*. 35. 1-25.
- Marshall, M.G., Gurr, T.R., Davenport, C. and Jaggers, K., 2002. Polity IV, 1800-1999: Comments on Munck and Verkuilen. *Comparative Political Studies*, 35(1), pp.40-45.
- Martin, Marysia. 2021. “(En)gendering Post-Conflict Agency: Women’s Experiences in Peacebuilding.” *Cooperation and Conflict* 56(4): 454-471.
- Matanock, A.M., 2014. Governance Delegation Agreements: Shared sovereignty as a substitute for limited statehood. *Governance*, 27(4), pp.589-612.
- Melander, E. 2005a. Gender equality and intrastate armed conflict, *International Studies Quarterly*, 49(4): 695-714.
- Melander, E. 2005b. Political gender equality and state human rights abuse, *Journal of Peace Research*, 12 (2): 149-166.
- Meger, S. and Sachseder, J., 2020. Militarized peace: Understanding post-conflict violence in the wake of the peace deal in Colombia. *Globalizations*, 17(6), pp.953-973.
- Mironova, V. and Whitt, S., 2017. International peacekeeping and positive peace: Evidence from Kosovo. *Journal of Conflict Resolution*, 61(10), pp.2074-2104.
- Moghadam, V.M., 2018. Explaining divergent outcomes of the Arab Spring: The significance of gender and women’s mobilizations. *Politics, Groups, and Identities*, 6(4): 666-681.

Office of Internal Oversight Services (2015) Evaluation of the enforcement and remedial assistance efforts for sexual exploitation and abuse by the United Nations and related personnel in peacekeeping operations. IED-15-001 ([https:// oios.un.org/page/download2/id/13](https://oios.un.org/page/download2/id/13))

O'Reilly, M., Ó Súilleabháin, A. and Paffenholz, T. (2015/6). Reimagining Peacemaking: Women's Roles in Peace Processes, *Inclusive Peace*, [ONLINE] Available at: <https://www.inclusivepeace.org/sites/default/files/IPI-Reimagining-Peacemaking.pdf> [Accessed 3 August 2019].

Oster, E., 2019. Unobservable selection and coefficient stability: Theory and evidence. *Journal of Business & Economic Statistics*, 37(2), pp.187-204.

Ostry, M.J.D., Alvarez, J., Espinoza, M.R.A. and Papageorgiou, M.C., 2018. Economic gains from gender inclusion: New mechanisms, new evidence. *International Monetary Fund*.

Otto, S., Kube, F., & Smidt, H. (2024). UN peacekeeping upon deployment: Peacekeeping activities in theory and practice. *Cooperation and Conflict*, 59(4), 488-509.

Pettersson, T., Davies, S., Deniz, A., Engström, G., Hawach, N., Höglbladh, S. and Öberg, M.S.M., 2021. Organized violence 1989–2020, with a special emphasis on Syria. *Journal of Peace Research*, 58(4), pp.809-825.

Pettersson, T., S. Höglbladh & M. Öberg, 2019. Organized violence, 1989-2018 and peace agreements. *Journal of Peace Research* 56(4): 589-603.

Rasler, K. and W. R. Thompson. 1985. War and the Economic Growth of Major Powers. *American Journal of Political Science* 29 (3): 513–538.

Reeder, B.W., Hendricks, M. and Goldring, E., 2022. All Peacekeeping is Local: Measuring Subnational Variation in Peacekeeping Effectiveness. *International Studies Quarterly*, 66(2), p.

Russo, J. (2021). Militarised peacekeeping: lessons from the Democratic Republic of the Congo. *Third World Quarterly*, 42(12), 3070–3086.

Schroeder, T., 2017. When security dominates the agenda: The influence of ongoing security threats on female representation. *Journal of Conflict Resolution*, 61(3), pp.564-589.

Sen, A. 1999. *Development as Freedom*, Oxford: Oxford University Press.

Sjoberg, L. and Via, S., 2010. Conclusion: The interrelationship between gender, war, and militarism. *Gender, War, and Militarism: Feminist Perspectives*: 231-237.

Sundström *et al.* 2015, *V-Dem Working Paper Series* 2015:19); V-DEM varieties of Democracy, Codebook 11.1, March 2021 © University of Gothenburg, V-Dem Institute.

Tripp, A.M. 2015. *Women and Power in Post-Conflict Africa*, Cambridge: Cambridge University Press.

Toft, Monica Duffy. 2010. Ending Civil Wars: A Case for Rebel Victory? *International Security* 34 (4): 7–36.

True, J., 2014. The Political economy of gender in UN peacekeeping. In *Rethinking Peacekeeping, Gender Equality and Collective Security* (pp. 243-262). Palgrave Macmillan, London.

United Nations. 2000. United Nations Millennium Declaration. United Nations A /RES/55/2. https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_55_2.pdf (Accessed on 11 March 2022).

von Billerbeck, Sarah, Birte Julia Gippert, Kseniya Oksamytna, Oisín Tansey 2025. “Introduction” *United Nations Peacekeeping and the Politics of Authoritarianism*. (pp. 1-23).

von Boemcken, Marc, Max Mutschler, R. Alberth, M. Bales, C. Schlusing, P. Rohleder, J. Brandsch, and S. Hauk. 2023. Global Militarisation Index: Codebook (Version 3.0). BICC. <https://www.bicc.de/Header%20Topics/GMI%202023>.

Walter, B. F. 2004. Does Conflict Beget Conflict? Explaining Recurring Civil War. *Journal of Peace Research* 41 (3): 371–388.

Walter, B. F., Howard, L. M., & Fortna, V. P. (2021). The extraordinary relationship between peacekeeping and peace. *British Journal of Political Science*, 51(4), 1705–1722.

WILPF-UK, Quakers of UK, Christian Aid. 2019. The impact of the UK's arms transfers and military spending on women's rights. Joint shadow report to the CEDAW Committee, 72nd session (February).

Whitworth, S. 2004. *Men, Militarism, and UN Peacekeeping: A Gendered Analysis*. Boulder, CO: Lynne Reiner Press.

Webster, K., Chen, C. and Beardsley, K., 2019. Conflict, peace, and the evolution of women's empowerment. *International Organization*, 73(2), pp.255-289.

Appendix A

A Table 1 Checking the Parallel Trend Assumption Using Leads

	Female empowerment
D post	0.074*** (0.007)
PKO leads t-10	-0.001 (0.017)
PKO leads t-9	0.001 (0.017)
PKO leads t-8	-0.00005 (0.017)
PKO leads t-7	-0.008 (0.016)
PKO leads t-6	-0.013 (0.016)
PKO leads t-5	-0.009 (0.015)
PKO leads t-4	-0.013 (0.015)
PKO leads t-3	-0.012 (0.015)
PKO leads t-2	-0.003 (0.014)
PKO leads t-1	-0.008 (0.014)
Constant	0.542*** (0.035)
Observations	3,662
Log Likelihood	4,395.806
Akaike Inf. Crit.	-8,405.613
<i>Note:</i> * p<0.1; ** p<0.05; *** p<0.01	

We include the interactions of the time dummies and the treatment indicator for all the periods except one interaction for the most distant pre-treatment period due to the dummy variable trap. All other interactions are expressed relative to the omitted period which serves as the baseline. If the outcome trends between treatment and control group are the same, then coefficients associated with the *leads* should all be insignificant, i.e., the difference in differences is not significantly different between the two groups in the pre-treatment periods (also see Autor 2003 and Gizelis and Cao 2021). As Table 1 shows the leads are insignificant.

A Table 2a: Alternative measurements of female empowerment & military expenditures

	Female empowerment		
	Property rights	Civil society	Exclusionary policies
	(1)	(2)	(3)
D post	0.187*** (0.031)	0.399*** (0.038)	-0.039*** (0.005)
Mil.exp.GDPHealth	-0.035** (0.015)	-0.080*** (0.018)	0.011*** (0.002)
Democracy	0.232*** (0.020)	0.136*** (0.024)	-0.051*** (0.003)
IMR	0.001 (0.001)	-0.005*** (0.001)	0.001*** (0.0001)
Log Pop	0.197** (0.092)	0.039 (0.112)	-0.019 (0.015)
Conflict intensity	0.00000 (0.00000)	-0.00002*** (0.00000)	-0.00000 (0.00000)
Ceasefire	0.035 (0.039)	0.030 (0.048)	-0.002 (0.007)
Constant	-0.338 (1.143)	2.181 (1.393)	0.400** (0.192)
Observations	1,610	1,610	1,610
Log Likelihood	142.871	-175.064	3,018.537
Akaike Inf. Crit.	-55.743	580.129	-5,807.073

Note: *p<0.1; **p<0.05; ***p<0.01

A Table 2b: Alternative measurements of female empowerment & Vdem-militarization

	Female empowerment		
	Property rights	Civil society	Exclusionary policies
	(1)	(2)	(3)
D post	0.408*** (0.038)	0.080** (0.035)	-0.035*** (0.006)
Militarization-VDEM	-0.001* (0.0003)		
Democracy		-0.145*** (0.039)	0.016** (0.007)
IMR	0.136*** (0.024)	0.265*** (0.022)	-0.068*** (0.004)
Log Pop	-0.005*** (0.001)	-0.002*** (0.0005)	0.0005*** (0.0001)
Conflict intensity	0.091 (0.112)	-0.045 (0.051)	0.016* (0.009)
Ceasefire	-0.00002*** (0.00000)	-0.00000** (0.00000)	0.00000*** (0.00000)
maxceasefire		-0.030 (0.053)	0.009 (0.009)
Constant	1.491 (1.391)	2.251*** (0.617)	0.109 (0.105)
Observations	1,610	3,229	3,229
Log Likelihood	-183.882	-1,047.193	4,666.773
Akaike Inf. Crit.	595.763	2,424.386	-9,003.545
<i>Note:</i> * p<0.1; ** p<0.05; *** p<0.01			

A Table 3: All models with SIPRI militarization measurement

	Female empowerment						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
D post (all PKOs)	0.090*** (0.008)			0.022*** (0.005)			0.096*** (0.008)
D post (integrative)		0.096*** (0.009)			0.031*** (0.006)		
D post (first gen.)			0.076*** (0.012)			0.015* (0.008)	
Mil.exp. % GDP	0.002*** (0.001)	0.002*** (0.001)	0.003*** (0.001)	0.002*** (0.0004)	0.002*** (0.0004)	0.002*** (0.0005)	
Mil.exp. % GDP.lag							0.003*** (0.001)
Democracy	0.070*** (0.005)	0.068*** (0.005)	0.066*** (0.005)	0.030*** (0.003)	0.030*** (0.003)	0.030*** (0.003)	0.073*** (0.005)
GDPpc	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00001*** (0.00000)				-0.00001*** (0.00000)
IMR				-0.0002** (0.0001)	-0.0001* (0.0001)	-0.0002** (0.0001)	
Log Pop	0.026 (0.018)	0.008 (0.018)	0.020 (0.019)	0.019* (0.011)	0.012 (0.011)	0.017 (0.012)	0.022 (0.019)
Conflict intensity	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)
Ceasefire				0.685*** (0.012)	0.679*** (0.012)	0.677*** (0.012)	
Female empowerment lag	0.001 (0.012)	-0.001 (0.012)	0.002 (0.012)	-0.008 (0.008)	-0.009 (0.008)	-0.009 (0.008)	-0.002 (0.013)
Constant	-0.148 (0.162)	0.001 (0.165)	-0.103 (0.168)	-0.067 (0.094)	-0.014 (0.097)	-0.052 (0.098)	-0.105 (0.174)
Observations	2,566	2,509	2,435	2,532	2,475	2,401	2,401
Log Likelihood	3,362.469	3,293.920	3,187.145	4,415.958	4,309.026	4,157.583	3,179.468
Akaike Inf. Crit.	-6,390.937	-6,253.840	-6,040.289	-8,517.917	-8,304.053	-8,001.167	-6,026.936

Note:

* p<0.1; ** p<0.05; *** p<0.01

A Table 4: Models with V-Dem militarization measurement

	Female empowerment		
	(1)	(2)	(3)
D post (all PKOs)	0.019*** (0.005)		
D post (integrative)		0.031*** (0.005)	
D post (first gen.)			0.012* (0.007)
Militarization-VDEM	-0.032*** (0.005)	-0.034*** (0.005)	-0.036*** (0.005)
Democracy	0.030*** (0.003)	0.029*** (0.003)	0.030*** (0.003)
GDPpc	-0.0001* (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
IMR	0.004 (0.007)	0.0002 (0.007)	0.001 (0.007)
Log Pop	-0.00000*** (0.00000)	-0.00000*** (0.00000)	-0.00000*** (0.00000)
Conflict intensity	0.647*** (0.010)	0.637*** (0.011)	0.633*** (0.011)
Female empowerment lag	-0.003 (0.007)	-0.004 (0.007)	-0.005 (0.007)
Ceasefire	0.144* (0.082)	0.194** (0.083)	0.187** (0.085)
Observations	3,212	3,143	3,053
Log Likelihood	5,468.622	5,346.952	5,170.142
Akaike Inf. Crit.	-10,607.240	-10,363.900	-10,010.280

Note: * p<0.1; ** p<0.05; *** p<0.01

A Table 5: Breakdown of UN missions since 1945

Measure	Value
Total missions in sample	71
First-generation missions	41 (57.75%)
Integrative missions	30 (42.25%)
Missions started since 2000	18
Integrative missions started since 2000	14
Percentage of post-2000 missions that are integrative	77.78%

A Table 6: Comparing measure samples

	Female empowerment			
	(1)	(2)	(3)	(4)
D post (PKOs)	0.090 ^{***} (0.008)	0.049 ^{***} (0.007)	0.051 ^{***} (0.007)	0.050 ^{***} (0.007)
Mil.exp. % GDP	0.002 ^{***} (0.001)		-0.002 ^{**} (0.001)	
Mil.exp.GDPHealth		-0.010 ^{***} (0.003)		-0.010 ^{***} (0.004)
Democracy	0.070 ^{***} (0.005)	0.045 ^{***} (0.004)	0.043 ^{***} (0.005)	0.044 ^{***} (0.005)
GDPpc	-0.00000 ^{***} (0.00000)	-0.00000 ^{***} (0.00000)	-0.00001 ^{***} (0.00000)	-0.00000 ^{***} (0.00000)
Log Pop	0.026 (0.018)	-0.010 (0.021)	-0.012 (0.022)	-0.010 (0.021)
Conflict intensity	-0.00000 ^{***} (0.00000)	-0.00000 ^{***} (0.00000)	-0.00000 ^{***} (0.00000)	-0.00000 ^{***} (0.00000)
Female empowerment lag	0.001 (0.012)	0.017 [*] (0.009)	0.018 ^{**} (0.009)	0.018 ^{**} (0.009)
Ceasefire	-0.148 (0.162)	1.121 ^{***} (0.276)	0.416 ^{**} (0.193)	0.399 ^{**} (0.190)
Observations	2,566	1,610	1,448	1,448
Log Likelihood	3,362.469	2,587.983	2,319.385	2,320.408
Akaike Inf. Crit.	-6,390.937	-4,945.967	-4,418.771	-4,420.816

Note: *p<0.1; **p<0.05; ***p<0.01

A Table 7: Comparing samples in Table 1

	Female empowerment		
	(1)	(2)	(3)
D post (all PKOs)	0.060*** (0.007)		
D post (integrative)		0.067*** (0.009)	
D post (first gen.)			0.100*** (0.012)
Constant	0.758*** (0.015)	0.762*** (0.015)	0.085 (0.084)
Observations	1,610	1,549	2,435
Log Likelihood	2,489.931	2,402.892	3,027.454
Akaike Inf. Crit.	-4,761.863	-4,587.784	-5,732.908
Note:	* p<0.1; ** p<0.05; *** p<0.01		

Appendix B

B Table 1: Mediation Analysis of Integrative UN Peacekeeping on Female Empowerment (Figure 2)

Five Years Post Conflict	Δ Female Empowerment	Δ Military Spending BICC
Integrative PKO Presence	0.061*** (0.019)	-0.808*** (0.225)
BICC Δ Military Spending	-0.036*** (0.007)	
Democracy	0.006*** (0.001)	0.007 (0.018)
Infant Mortality	0.001*** (0.000)	
Lag Female Emp.	0.165*** (0.043)	
Population	-0.000 (0.000)	
GDPPC _{t-1}		-0.0000 (0.0000)
Episode Duration		0.0001 (0.00003)
Negotiated Settlement		-0.215 (0.247)
BICC Milex_Indicator		0.160 (0.121)
Cumulative Intensity		-0.468** (0.193)
Constant	-0.090*** (0.028)	-0.174 (0.297)
N	130	130
F statistic	29.39***	5.20***
Adjusted R-squared	0.57	0.19

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	0.028	0.011 0.048
Direct Effect	0.062	0.025 0.094
Total Effect	0.089	0.059 0.127
% of Tot Eff mediated	0.315	0.217 0.467

B Table 2: Mediation Analysis of Integrative UN Peacekeeping on Female Empowerment (Figure 3)

Ten Years Post Conflict	Δ Female Empowerment	Δ Military Spending BICC
Integrative PKO Presence	0.042* (0.018)	- 1.619*** (0.218)
BICC Δ Military Spending	-0.016*** (0.006)	
Democracy	0.009*** (0.001)	0.017 (0.019)
Infant Mortality	0.001*** (0.000)	
Lag Female Emp.	0.309*** (0.038)	
Population	-0.000*** (0.000)	
GDPPC _{t-1}		-0.00002 (0.00002)
Episode Duration		0.0002*** (0.00003)
Negotiated Settlement		0.441 (0.288)
BICC Milex_Indicator		0.520*** (0.135)
Cumulative Intensity		-0.289 (0.213)
Constant	-0.123*** (0.022)	- 1.695*** (0.367)
N	145	145
F statistic	87.39***	18.01***
Adjusted R-squared	0.78	0.45

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	0.025	0.008 0.047
Direct Effect	0.041	0.007 0.073
Total Effect	0.066	0.038 0.094
% of Tot Eff mediated	0.394	0.269 0.656

B Table 3 Mediation Analysis of Integrative UN Peacekeeping on Female Empowerment

Five Years Post Conflict	ΔFemale Empowerment	ΔMilitary Spending SIPRI
Integrative PKO Presence	0.099*** (0.022)	-9.138*** (1.430)
SIPRI ΔMilitary Spending	-0.004*** (0.001)	
Democracy	0.004*** (0.001)	0.278** (0.114)
Infant Mortality	0.001*** (0.0002)	
Lag Female Emp.	0.172*** (0.048)	
Population	-0.000 (0.000)	
GDPPC _{t-1}		-0.0003 (0.0002)
Episode Duration		0.0004* (0.0002)
Negotiated Settlement		-1.556 (1.495)
SIPRI MilExpGDPLLevel		1.529*** (0.449)
Cumulative Intensity		-1.195 (1.282)
Constant	-0.081*** (0.031)	-2.201 (1.922)
N	112	112
F statistic	27.54***	10.17***
Adjusted R-squared	0.59	0.37

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	0.036	0.011 0.065
Direct Effect	0.098	0.055 0.142
Total Effect	0.134	0.096 0.175
% of Tot Eff mediated	0.271	0.206 0.377

B Table 4: Mediation Analysis of Integrative UN Peacekeeping on Female Empowerment

Ten Years Post Conflict	ΔFemale Empowerment	ΔMilitary Spending SIPRI
Integrative PKO Presence	0.043* (0.020)	-12.322*** (1.313)
SIPRI ΔMilitary Spending	-0.002* (0.001)	
Democracy	0.010*** (0.001)	0.091 (0.119)
Infant Mortality	0.0008*** (0.0002)	
Lag Female Emp.	0.282*** (0.044)	
Population	-0.000*** (0.000)	
GDPPC _{t-1}		-0.0003* (0.0001)
Episode Duration		0.0002*** (0.00003)
Negotiated Settlement		2.822 (1.838)
SIPRI MilExpGDPLLevel		2.574*** (0.537)
Cumulative Intensity		-3.822*** (1.371)
Constant	-0.102*** (0.026)	-7.828*** (2.410)
N	137	145
F statistic	70.44***	23.67***
Adjusted R-squared	0.75	0.54

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	.0289	0.002 0.056
Direct Effect	0.042	0.005 0.081
Total Effect	0.071	0.039 0.104
% of Tot Eff mediated	0.404	0.275 0.729

Online Appendix C :

C Table 1: Mediation Analysis of All UN Peacekeeping Missions on Female Empowerment

Five Years Post Conflict	Δ Female Empowerment	Δ Military Spending
PKO Presence	0.099*** (0.015)	-6.691*** (1.293)
Δ Military Spending	-0.004*** (0.001)	
Democracy	0.004*** (0.001)	0.347*** (0.120)
Infant Mortality	0.001*** (0.000)	
Lag Female Emp.	0.131*** (0.044)	
Population	-0.000 (0.000)	
GDPPC _{t-1}		-0.0001 (0.0002)
Episode Duration		0.0003 (0.0002)
Negotiated Settlement		-1.700 (1.592)
MilExpGDPLLevel		1.892*** (0.490)
Cumulative Intensity		-0.599*** (1.416)
Constant	-0.082*** (0.028)	-3.306 (2.100)
N	112	112
F statistic	35.92***	7.73***
Adjusted R-squared	0.65	0.30

* $p < 0.1$; * $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	0.028	0.012 0.048
Direct Effect	0.099	0.070 0.129
Total Effect	0.127	0.099 0.158
% of Tot Eff mediated	0.221	0.177 0.284

C Table 2: Mediation Analysis of All UN Peacekeeping Missions on Female Empowerment

Ten Years Post Conflict	ΔFemale Empowerment	ΔMilitary Spending (SIPRI)
PKO Presence	0.038*** (0.014)	-8.650*** (0.015)
ΔMilitary Spending	-0.003*** (0.001)	
Democracy	0.010*** (0.001)	0.182*** (0.001)
Infant Mortality	0.001*** (0.000)	
Lag Female Emp.	0.251*** (0.043)	
Population	-0.000*** (0.000)	
GDPPC _{t-1}		-0.0001 (0.0002)
Episode Duration		0.001*** (0.0002)
Negotiated Settlement		3.638* (2.018)
MilExpGDPLlevel		3.281*** (0.610)
Cumulative Intensity		-4.037*** (1.500)
Constant	-0.096 (0.026)***	-11.216*** (1.500)
N	137	137
F statistic	72.3***	17.06***
Adjusted R-squared	0.76	0.45

* $p < 0.1$; * $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	0.025	0.010 0.043
Direct Effect	0.038	0.011 0.064
Total Effect	0.062	0.036 0.091
% of Tot Eff mediated	0.405	0.275 0.706

C Table 7: Mediation Analysis of All UN Peacekeeping Missions on Female Empowerment

Ten Years Post Conflict	ΔFemale Empowerment	ΔMilitarization VDEM
PKO Presence	0.045*** (0.014)	0.004 (0.021)
ΔMilitarization VDEM	-0.177*** (0.049)	
Democracy	0.003** (0.001)	0.002 (0.002)
Infant Mortality	0.000* (0.000)	
Lag Female Emp.	0.522* (0.036)x	
Population	-0.000 (0.000)	
GDPPC _{t-1}		-0.00001*** (0.0000)
Episode Duration		0.0000 (0.0000)
Negotiated Settlement		-0.096*** (0.031)
MilExpGDPLlevel		0.108 (0.087)
Cumulative Intensity		-0.048* (0.025)
Constant	-0.218*** (0.023)	-0.028 (0.040)
N	169	169
F statistic	88.39***	5.98***
Adjusted R-squared	0.76	0.17

* $p < 0.1$; * $p < 0.05$; *** $p < 0.01$

Episode Duration is the duration in days of the most recent conflict episode (UCDP). Cumulative Intensity = 1 for 1000 cumulative battle deaths or greater, else 0 (UCDP) All other variables described in the body of the paper.

Mediation Effects	Mean	[95% Conf. Interval]
Indirect Effect	-0.0006	-0.009 0.007
Direct Effect	0.044	0.018 0.070
Total Effect	0.043	0.017 0.071
% of Tot Eff mediated	-0.1305	-0.034 -0.008