What do we know about gender, women, peace and security? In the past two decades, interest in systematic data and research on gender, women, peace and security has increased substantially. This growth has helped bring traditional feminist research themes into the mainstream fold of political science and international relations, offering opportunities to analyse and answer a number of policy-relevant questions. Some policy-makers welcome this growing research: for example, to mark the 15 year anniversary of UN Security Council Resolution 1325 in 2015, a high-level review produced the report Preventing Conflict, Transforming Justice, Securing the Peace: A Global Study on UNSC Resolution 1325.¹ In her 2017 annual award speech at the Georgetown University Institute for Women, Peace, and Security, Secretary Clinton referenced studies that demonstrated that when women are included in peace negotiations the resulting agreements are less likely to fail.² Similarly, the Council on Foreign Relations (CfR) has an interactive website dedicated to women’s role in peace processes that reiterates these claims, which first originated from an influential 2012 UN Women publication on women’s participation in peace negotiations.³ These examples illustrate the growing recognition and use of systematic analyses regarding gender, women, peace and security.

Notwithstanding recent positive developments, these examples also illustrate problems in how we use data and which data we use. For example, scholars criticise the Global Study for not systematically compiling or collecting existing empirical research to substantiate its claims.⁴ There has been similar pushback on the claims promoted by CfR, arguing that there is a lack of evidence.⁵ The current simplistic approach to data is problematic for two primary reasons: (1) effective policies require a factual foundation, not merely good intentions; and (2) a lack of transparency undermines research and ultimately enables sceptics to dismiss the important normative issues of women’s inclusion and gender equality more broadly based on concerns over the empirics. This is particularly unfortunate because data and systematic research on different aspects of gendered inequality, gendered forms of violence, women’s role in armed groups, and the implementation of the Women, Peace and Security (WPS) agenda have improved greatly in quality and quantity.

Scholars who engage in these quantitative projects are usually familiar with existing datasets and quickly learn about new data projects through formal and informal channels. However, the wider community of researchers, and particularly those within the policy realm, are frequently unaware of the most recent projects and developments. This has hampered efforts to shape policy

Robert Ulrich Nagel is a PhD candidate in International Conflict Analysis at the University of Kent. He was also a research assistant on the Sexual Violence in Armed Conflict (SVAC) project run by the Peace Research Institute Oslo and the Harvard Kennedy School’s Belfer Center.
based on systematic data collection and analysis on gender, women, peace and security, and provided policy-makers with cover for their lack of political will to implement effective policies. This article therefore aims to provide a short overview of the known knowns and known unknowns of the quantitative data landscape on gendered violence, women in armed groups, and the WPS agenda. I begin by discussing data on societal gendered violence, highlighting both advances and areas for further improvement, before turning to discuss data on sexual violence, exploitation, and abuse in conflict settings. The second part of this paper examines what we know about women’s participation in armed groups, before I briefly discuss what we know about women’s participation in national militaries. In the section on the Women, Peace, and Security agenda, I provide an overview of the quantitative data on issues linked to UN Security Council Resolution 1325, such as gender mainstreaming, National Action Plans, and increasing women’s participation in different aspects of peace processes, in particular peacekeeping, negotiations, and peace agreements. Lastly, I use this survey of the current state of the field to recommend future directions of study and policy initiatives.

DATA ON GENDERED VIOLENCE

Gendered inequality as violence

Feminist scholars have argued for decades that gendered (in-)equality is crucial to understanding international relations, conflict, and violence. A fundamental pillar of the argument is that gendered inequality, or put differently, the domination and exploitation that disadvantages women and benefits men, is in itself a form of violence. Building on this theoretical foundation, positivist scholars attempted to find conceptualisations and measurements to model the effects of gendered (in)equity on conflict from likelihood of onset to severity. Although this body of work finds consistent support for the hypothesised causal relationship between gendered inequality and conflict, it faces criticism.

One criticism is that scholars use the same data to essentially test three different theories about how gendered inequality influences conflict: (1) Micro-level violence against women and girls reflects societal norms that normalise other forms of violence, (2) women’s exclusion from positions of power enables men to sustain “warrior” gender roles, which limit the government’s strategic thinking and increase the likelihood of armed conflict, and (3) rigid gender dichotomies that tie masculinity to the warrior ideal and femininity to nurturing mother ideal perpetuate identities and behavior that entrench men’s belligerence and women’s lack of power. This lack of theoretical clarity is reflected in the empirical sphere where different indicators such as fertility rate, women’s labor market participation, and women’s political representation are used interchangeably.

In light of these theoretical and methodological challenges, recent projects aim to be more comprehensive in both conceptualising and measuring gendered inequality. For example, the WomanStats project includes 350 variables in 175 countries, including previously neglected aspects such as sex trafficking, family law, and women’s participation in government and militaries. A unique feature of the WomanStats project is its to attention on women’s security, which distinguishes it from other data projects such as the Cingranelli and Richards (CIRI) Human Rights Data Project, which has an index for women’s economic, political, and social rights, but not for experiences of violence. Besides the WomanStats project there are a number of indices that are targeted at policy-makers. A recent addition is the WPS Index created...
by Georgetown University’s Institute for Women, Peace and Security in collaboration with the Peace Research Institute of Oslo. The index focuses on three dimensions of women’s position relative to men: inclusion, justice, and security. In calculating and ranking the 153 country scores, the index draws on recognised data sources, including peer-reviewed publications, national statistical offices, and UN organisations.13

These initiatives in data collection, however, are no cause for complacency. As promising as they might be, they share the same limitations: data availability, reliability, comparability, and robustness. Sex-disaggregated data are limited in their temporal scope. For example, one of the reasons that fertility rate data are frequently used in statistical analyses is that it is one of the few measures that are available from the 1960s onwards, while most sex-disaggregated data collection only started in 1990. As a result, recent projects such as WomanStats (earliest data available from 2007) or the WPS index (2017) are restricted to cross-sectional analyses and do not allow temporal analyses. The temporal dimension, however, is crucial if we are to accurately assess the changing situation of women across and within countries.

A recent working paper by Sabrina Karim and Danny Hill14 offers an approach that largely overcomes temporal limitations of data availability without falling into the theoretical pitfall of blending together variables that reflect different behaviours and different inequalities, and thus do not actually capture one underlying concept. Theoretically, they disaggregate the overarching concept of gendered inequality into three dimensions: women’s security, women’s inclusion, and women’s rights. Methodologically, they draw on Bayesian mixed factor analytical models, which allow for and impute missing values in the component indicators. "Mixed models" means they combine both continuous and binary indicators “by assuming different functional forms for the relationships between the latent variable and the observed indicators”.15 This approach enables them to draw on a multitude of sources and to cover an extensive time period (1960-2014 for security and rights, 1973-2014 for inclusion). Furthermore, unlike other indicators of gendered inequality, their scales include estimates of uncertainty, which guards them against overstating the precision of their conclusions.

Sexual violence in armed conflict

Until recently, both political scientists and policy-makers had neglected or minimised sexual violence, deeming it a quasi-natural, inevitable occurrence in war. Recent research, however, illustrates that there is substantial variation in forms and severity of sexual violence in armed conflict.16 Wartime rape, for example, is best explained not by popular narratives of rape as a weapon of war, but by examining socialisation and group dynamics related to forcible recruitment.17 Yet rape is not the only form of conflict-related sexual violence; the International Criminal Court (ICC) further includes sexual slavery, forced prostitution, forced pregnancy, and forced sterilisation/abortion.18 Each form potentially speaks to different underlying motivations.

To facilitate cross-sectional analyses, Dara Kay Cohen and Ragnhild Nordås introduced the Sexual Violence in Armed Conflict (SVAC) dataset in 2014.19 The SVAC dataset is the first systematic dataset on sexual violence in all active armed conflicts and first five inactive years between 1989 and 2009. It contains annual data based on three primary sources: United States State Department Human Rights Reports, Human Rights Watch reports, and Amnesty International reports. In addition to the five forms of sexual violence outlined by the ICC, the SVAC dataset also includes the forms of

Examples include: UNDP’s Gender Empowerment Measure (GEM) and its Gender-related Development Index (GDI), Social Watch’s Gender Equity Index (GEI), the OECD’s Social Institutions and Gender Index, The Economist’s Women’s Economic Opportunity Index (WEO), UNDP’s Gender Inequality Index, The World Economic Forum’s Gender Gap Index (GGI), the World Bank’s Gender Statistics Database, the Clinton Foundation’s No Ceiling: The Full Participation Project”.12


Cohen, “Explaining Rape during Civil War”, Cohen, Rape During Civil War.


Cohen and Nordås, “Sexual Violence in Armed Conflict”.

12 Examples include: UNDP's Gender Empowerment Measure (GEM) and its Gender-related Development Index (GDI), Social Watch's Gender Equity Index (GEI), the OECD's Social Institutions and Gender Index, The Economist's Women's Economic Opportunity Index (WEO), UNDP's Gender Inequality Index, the World Economic Forum's Gender Gap Index (GGI), the World Bank's Gender Statistics Database, the Clinton Foundation's 'No Ceiling: The Full Participation Project'.
These findings also open up a number of new questions regarding the role of sexual violence. For example, are there other group-based factors besides forcible recruitment that can help us predict the use of sexual violence? What are the long-term consequences of sexual violence for societies and are they different from other types of violence?

At the same time, these findings also open up a number of new questions regarding the role of sexual violence. For example, are there other group-based factors besides forcible recruitment that can help us predict the use of sexual violence? What are the long-term consequences of sexual violence for societies and are they different from other types of violence?

Two forthcoming datasets will be instrumental in exploring these and other questions. There is an update of SVAC forthcoming that will include the years from 2010 up to and including 2015. This update also serves as the template for the second forthcoming dataset, which further disaggregates forms of sexual violence. These datasets will further enable researchers to explore the potentially differing motivations and effects of different forms of sexual violence, as well as to start exploring the temporal effects of sexual violence.

Sexual exploitation and abuse

In his most recent report on the topic, the UN Secretary-General António Guterres vowed that combatting sexual exploitation and abuse by peacekeeping personnel “continues to be one of [his] key priorities for 2018, as is assisting and empowering those who have been scarred by these egregious acts.” Despite the often proclaimed “zero tolerance policy” designed to prevent it, both civilian and military members of peacekeeping operations (PKOs) continue to perpetrate sexual exploitation and abuse (SEA). How extensive is the problem? A recent survey-based study in Liberia estimates “that more than half of eighteen to thirty-year-old women in greater Monrovia have engaged in transactional sex and that most of them (more than 75 per cent, or about 58,000 women) have done so with UN personnel, typically in exchange for money.” So what do existing data and research tell us about variation, possible explanations, and consequences of SEA?
The first systematic analysis of SEA examined 36 international PKOs operated by the UN, NATO, ECOWAS, and the AU that were active between 1999 and 2010. Ragnhild Nordås and Siri Rustad find that the greater the size of the troop contingent, the more likely it is that SEA will be reported. Low levels of SEA reporting are associated with missions in countries with higher levels of economic development. Higher levels of SEA reporting are associated with missions following conflicts in which there was extensive sexual violence. SEA reporting is more likely both when mission mandates explicitly mention women and when they take place after 2005. These latter two findings suggest that greater attention to issues of women’s security and SEA increases reporting. This underscores the inherent uncertainty associated with data on sexual violence, SEA, and WPS more generally. It highlights the difficulties in differentiating between increased prevalence and increased reporting, which pose problems for accurately assessing interventions’ outcomes and effectiveness. This presents a challenge for researchers, practitioners, and policy-makers alike: how do we know if an increase (or reduction) in reports is the result of reporting bias, a long-term trend, or a genuine reflection of changing patterns prompted by an intervention?

A more recent study using mission-level information from 2009 to 2013 shifts the focus from structural conditions to the role of the mission composition. Sabrina Karim and Kyle Beardsley find that both higher proportions of female peacekeepers and levels of gender equality in the sending country are associated with lower levels of reported SEA. Put differently, lower levels of SEA reporting are associated with PKOs with a greater share of women deployed. Further, lower levels of SEA reporting are associated with higher proportions of troops from countries with better records of gender equality. This suggests that while increasing the number of women may help, it falls short of addressing the underlying problem of inequitable power relations, and suggests that reducing SEA in PKOs requires all members of the mission to develop a fundamental regard for gender equality. In line with this, further research into mission-related factors finds that disciplinary culture and socialisation within a mission are associated with levels of reported SEA. Specifically, Stephen Moncrief shows that higher numbers of non-sexual discipline offences are associated with higher levels of reported SEA. In other words, one potential avenue for addressing SEA is stricter enforcement of discipline in general and the cultivation of a value-based organisational culture in PKOs.

Together, these studies shed light on the structural and organisational factors that are associated with SEA. The consequences of these acts, however, have been left largely unexplored so far. In his 2018 report, the UN Secretary-General contends that “every allegation involving our personnel undermines the Organisation’s values and principles and the sacrifice of those who serve with pride and professionalism in some of the most dangerous places.” While there is little doubt that this is true, the exact impact of SEA on UN missions’ credibility and the potential long-term effects on trust in the organisation and host countries’ governmental institutions requires systematic analyses. The Secretary-General also notes a further problem in that SEA “diverts attention...”

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and resources from efforts to maintain peace and security, promote and protect human rights, provide humanitarian assistance and realise the Sustainable Development Goals. This is supported by research in Liberia that estimates that more than 12,000 women entered the transactional sex market who would not have done without UNMIL present. The authors acknowledge that the association between the growth of the transactional sex market and UNMIL’s presence could be coincidental, meaning that UN personnel present in the country did not participate in the transactional sex market. However, in their view, highly paid UN personnel’s participation in this market is beyond doubt. This raises concerns not only regarding UNMIL’s recent withdrawal in March 2018, which left behind a distorted economy in which the majority of Monrovia’s young women will have been depending to some extent on selling sex, but also for the majority of other PKOs and the UN’s broader peace-building goals, especially in regards to gender equality and economic development. These findings and implications highlight the importance of continued data collection and systematic analyses to improve our understanding of the short- and long-term impact of SEA.

Three datasets have demonstrated that women are actively involved in rebel groups far more often than previously acknowledged. These datasets open the door for research to systematically explore the variation in women’s participation, the causes, and effects.

The first dataset includes information on 166 violent political organisations across 19 African countries between 1950 and 2011. Using these data, Jakana Thomas and Kanisha Bond illustrate that women were active in almost half of all groups and that women were combatants in almost a third of them. Exploring organisation-based factors for women’s participation, they show that smaller groups and groups involved in self-determination struggles are less likely to include women. On the other hand, women are more likely to take on combat roles in groups that have a positive gender ideology. Regardless of their role, women’s participation is more likely when groups use forcible recruitment or specialise in terrorist tactics.

The second dataset draws on a random global sample of 72 rebel groups between 1990 and 2009. Alexis Henshaw shows that women were active participants in more than half of these groups, that they held combat roles in almost a third of them, and that they were part of the leadership in more than a quarter of the groups. In 31 out of the 43 groups, women participated voluntarily. Exploring structural drivers of women’s participation, Henshaw finds that women are motivated by economic and ethnic or religious grievances. She also finds

DATA ON WOMEN AND GIRLS IN ARMED GROUPS

Participation

Throughout history the majority of combatants have been men, mostly young and of lower social status. This, in combination with gender stereotypes about women’s assumed peacefulness, has resulted in research largely neglecting women’s participation in armed groups. In recent years, however, systematic research into women’s participation in armed groups has grown substantially. Specifically, three datasets have demonstrated that women are actively involved in rebel groups far more often than previously acknowledged. These datasets open the door for research to systematically explore the variation in women’s participation, the causes, and effects.

32 Ibid, 2.
33 Beber et al, "Peacekeeping, Compliance with International Norms, and Transactional Sex in Monrovia, Liberia".
34 Joshua S. Goldstein, War and Gender: How Gender Shapes the War System and Vice Versa (Cambridge: Cambridge University Press, 2001).
<table>
<thead>
<tr>
<th>Study</th>
<th>Area</th>
<th>Key Findings</th>
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| Dara Kay Cohen, "Explaining Rape during Civil War: Cross-National Evidence (1980-2009)" | SVAC                      | • Armed groups that recruit by force, through abduction or pressganging, use rape to create unit cohesion  
• Weak states ➔ increased wartime rape by rebel groups  
• Insurgent contraband funding ➔ increased wartime rape by rebel groups |
| Dara Kay Cohen and Ragnhild Nordås, "Do States Delegate Shameful Violence to Militias? Patterns of Sexual Violence in Recent Armed Conflicts" | SVAC and Militias          | • States commit sexual violence as a complement to, not as a substitute for, militia violence  
• Militias recruiting children ➔ higher levels of sexual violence  
• Militias receiving state training ➔ higher levels of sexual violence |
| Karin Johansson and Mehwish Sarwari, "Sexual Violence and Biased Military Interventions in Civil Conflict" | SVAC and Military interventions | Shifts in the power relations between warring parties increase the likelihood of sexual violence |
| Joakim Kreutz and Magda Cardenas, "Women, Peace and Intervention: How the International Community Responds to Sexual Violence in Civil Conflict" | SVAC and Peacekeeping | Both the United Nations and regional organisations deploy peacekeepers to conflicts with high prevalence of sexual violence |
| Karin Johansson and Lisa Hultman, "Responding to Wartime Sexual Violence: UN Peacekeeping and the Protection Agenda" | SVAC and Peacekeeping | • Reports of sexual violence increase the likelihood of a peacekeeping operation  
• Depending on sources, contradictory findings for whether the UN responds differently to sexual violence perpetrated by states and non-state actors respectively |
| Lisa Hultman and Karin Johansson, "UN Peacekeeping and Protection from Sexual Violence" | SVAC and Peacekeeping | • Ability of peacekeepers to reduce sexual violence in general is weak  
• Stronger police contingents have an advantage over other missions  
• When actors exercise control, the number of peacekeepers is associated with a lower risk of sexual violence for both governments and rebels |
| Robert U. Nagel, "Talking to the Shameless? Sexual Violence and Conflict Management in Intrastate Conflicts" | SVAC and Mediation          | Mediation onset in civil wars is more likely when rebels are reported to perpetrate sexual violence |
| Tiffany Chu and Jessica Maves Braithwaite, "The Effect of Sexual Violence on Negotiated Outcomes in Civil Conflicts" | SVAC and Conflict outcomes | When both sides perpetrate sexual violence during the conflict they are more likely to end the conflict via a negotiated agreement |
| Bernd Beber, Michael Gilligan, Jenny Guardado, and Sabrina Karim, "Peacekeeping, Compliance with International Norms and Transactional Sex in Monrovia, Liberia" | SEA                       | Estimates that more than half of 18 to 32-year old women in greater Monrovia have engaged in transactional sex and that most of them (more than 75 per cent) have done so with UN personnel |
| Ragnhild Nordås and Siri C A Rustad, "Sexual Exploitation and Abuse by Peacekeepers: Understanding Variation" | SEA                       | • Greater size of the troop contingent ➔ higher levels of SEA reporting  
• Missions in countries with higher levels of economic development ➔ lower levels of SEA reporting  
• Missions following conflicts in which there was extensive sexual violence ➔ higher levels of SEA reporting  
• Mission mandates explicitly mention women ➔ higher levels of SEA reporting  
• Mission takes place after 2005 ➔ higher levels of SEA reporting |
| Sabrina Karim and Kyle Beardsley, "Explaining Sexual Exploitation and Abuse in Peacekeeping Missions: The Role of Female Peacekeepers and Gender Equality in Contributing Countries" | SEA                       | • Greater share of women deployed  
• Missions in countries with higher levels of economic development ➔ lower levels of SEA reporting  
• Missions following conflicts in which there was extensive sexual violence ➔ higher levels of SEA reporting  
• Mission mandates explicitly mention women ➔ higher levels of SEA reporting  
• Mission takes place after 2005 ➔ higher levels of SEA reporting |
| Stephen Moncrief, "Military Socialization, Disciplinary Culture, and Sexual Violence in UN Peacekeeping Operations" | SEA                       | Higher numbers of non-sexual discipline offences ➔ higher levels of reported SEA |
In focusing on women and girls as agents of political violence and as members of non-state armed groups, these datasets and results are important contributions to a feminist WPS research agenda, which seeks to both move away from traditional state-centrism in international relations and recognise women’s diverse roles in peace and conflict.

that women did not participate because it presented an opportunity for personal gain. Women also did not participate because a rebel movement had a platform of supporting women’s rights, but some cases rather suggest that women’s participation shifted the movement’s platform. In sum, her findings challenge the importance of selective incentives and the desire for political participation as important motivations for women’s rebel group participation.

The third dataset improves on these two existing datasets by including a larger sample of rebel groups and providing prevalence estimates of women as combatants. Similar to the first dataset, Reed Wood and Jakana Thomas focus on organisational factors in exploring potential explanations for the variation in female fighters’ presence and prevalence. They find that the underlying group ideology is an important factor associated with the number of female combatants. A Marxist-inspired “leftist” ideology is associated with higher numbers of female fighters, while an Islamist ideology shows the opposite relationship. Nationalist ideologies do not show any significant relationship in either direction.

In addition to these datasets on women in rebel and violent political organisations, there are two datasets on girls in armed groups. The first dataset identifies 54 countries in which girls were present in either governmental or non-state armed forces between 1990 and 2002. In 36 of these countries, girl soldiers were involved in armed conflict. In some cases, such as Angola, Sierra Leone, El Salvador, Uganda, and Ethiopia, girls constituted 30 per cent to 40 per cent of all child soldiers. The second, recently released dataset – Girl Child Soldiering Dataset (G-CSDS) – improves on this existing dataset by extending the time period to cover 1989 to 2013. In their global sample of 321 rebel groups, Roos Haer and Tobias Böhmelt find that about half of these groups included girl soldiers (48 per cent). Girl soldiers fulfilled supporting roles in the majority of these 154 groups; however, in 57 groups girls also took on combatant roles. Similar to the findings regarding women’s participation in violent political organisations, the size of the group matters: smaller groups are less likely to recruit girl soldiers. They also find that the more active rebel groups there are in a country the less likely a group is to recruit girls, and that levels of economic development have a negative relationship with the recruitment of girls – i.e., higher levels of economic development are associated with a lower likelihood of girl soldiering. Furthermore, they find that the longer a conflict is ongoing, the more likely it is that a group recruits girl soldiers. The results also suggest that there are important differences between girl fighters and those in support roles. In focusing on women and girls as agents of political violence and as members of non-state armed groups, these datasets and results are important contributions to a feminist WPS research agenda, which seeks to both move away from traditional state-centrism in international relations and recognise women’s diverse roles in peace and conflict.

A shared shortcoming of all these datasets is that they are largely time-invariant. Put differently, while they tell us that women and/or girls were active in a group, they do not tell us when the women/girls entered the group and how long they remained in the group. This

41 For the G-CSDS as well as Wood and Thomas’s dataset the unit of analysis is conflict-dyad-period, which allows for variation between conflict periods, but not within.
is primarily a result of the difficulties of collecting detailed, yearly information on non-state actors—a common challenge of datasets on non-state actors—and by no means diminishes the value of these datasets. Increasing our understanding of the prevalence of women’s and girls’ participation in armed groups is vital to help scholars and policy-makers identify the underlying causes and consequences of women and girls’ participation. These datasets shed light on previously neglected aspects of both armed groups and conflicts, enabling researchers to highlight and examine the influence of women and girls during and after conflict, as well as to evaluate policies and implementation programmes, for example demobilisation, disarmament, re-integration, reconstruction, and peace-building programs.

So what do these datasets tell us about the effects of women’s/girls’ participation in armed groups? Considering how recent these datasets are, it is not surprising that there are many questions that are yet to be explored. One question that has received some attention is to what extent women’s participation influences wartime rape. Scholars and international organisations claim that women’s participation in armed groups might reduce the prevalence of conflict-related sexual violence. However, Meredith Loken’s systematic analysis of women’s participation in armed groups and wartime rape shows that there is no significant association. Put differently, whether women participate or not does not influence an armed group’s propensity to commit wartime rape. This is just one example of how promising these datasets are in terms of facilitating further research and informing policy-making.

Women in national militaries

Shifting the focus from armed groups to national militaries, it becomes apparent that, to the author’s knowledge, there is no existing global dataset that bundles national data on women in militaries. The data that do exist are largely on Western militaries. For example, Helena Carreiras’s book Gender and the Military: Women in the Armed Forces of Western Democracies has an accompanying dataset however, as the title implies, it is limited in its geographical scope. A further problem is that the dataset is unfortunately outdated as it only covers the time period between 1986/7 and 2000. A more recent dataset covers the years 2001 to 2011. This dataset draws on the annual reports of NATO’s Committee on Gender Perspectives, which are compiled based on data from national militaries. These contain overall percentages of female military personnel as well as information on service (army, air force, navy) and rank. The inclusion of information on the rank of women is particularly valuable because it helps to address the issue of "merely counting women", which might hide hierarchical power structures within national militaries.

An obvious shortcoming regarding these datasets on women in national militaries is the limited temporal and geographical scope. Researchers interested in women’s participation in countries outside of NATO have to collect relevant data individually, country by country. To do so, they need to contact countries’ individual departments or defence ministries. However, this comes with another challenge: countries do not keep very good data regarding women in the armed forces. There are substantial

Table II. Overview of datasets on women and girls in armed groups

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<tr>
<th>Study</th>
<th>Scope</th>
<th>Key Findings</th>
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| Jakana Thomas and Kanisha Bond, “Women’s Participation in Violent Political Organizations” | Sample of 166 organisations across 19 African countries between 1950 and 2011 | • Women were active in almost half of all groups and combatants in almost a third of them  
• Smaller groups and groups involved in self-determination struggles → women's participation less likely  
• Groups that have a positive gender ideology → women more likely to take on combat roles  
• Forcible recruitment or specialisation in terrorist tactics → women's participation more likely |
| Alexis Henshaw, "Where Women Rebel. Patterns of Women’s Participation in Armed Rebel Groups" | Random global sample of 72 rebel groups between 1990 and 2009        | • Women were active participants in more than half of these groups, held combat roles in almost a third of them, and were part of the leadership in more than a quarter  
• In 31 out of the 43 groups, women participated voluntarily  
• Women motivated by economic and ethnic or religious grievances |
| Reed Wood and Jakana Thomas, “Women on the Frontline: Rebel Group Ideology and Women’s Participation in Violent Rebellion” | Global sample of 211 rebel organisations active between 1979 and 2009 | • Underlying group ideology is an important factor associated with the number of female combatants  
• Marxist-inspired “leftist” ideology → higher numbers of female fighters  
• Islamist ideology → lower number of female fighters  
• Nationalist ideologies do not show any significant relationship with women's participation in either direction |
| Dyan Mazurana, Susan McKay, Kristopher Carlson and Janel Kasper, “Girls in Fighting Forces and Groups: Their Recruitment, Participation, Demobilization, and Reintegration” | Government and non-state actors in 54 countries between 1990 and 2002 | • In 36 of these countries, girl soldiers were involved in armed conflict  
• In cases such as Angola, Sierra Leone, El Salvador, Uganda, and Ethiopia girls constituted 30 per cent to 40 per cent of all child soldiers |
| Roos Haer and Tobias Böhmelt, “Girl Soldiering in Rebel Groups, 1989-2013: Introducing a New Dataset” | Global sample of 321 rebel groups between 1989 and 2013              | • In the majority of these 154 groups, girl soldiers fulfil supporting roles  
• In 57 groups girls also take on combatant roles  
• Smaller groups → less likely to recruit girl soldiers  
• More active rebel groups in a country → less likely a group recruits girls  
• Higher levels of economic development → less likely a group recruits girls  
• Longer conflicts → more likely a group recruits girls |
gaps in data coverage even within NATO countries. For example, there are seven years in the 1980s for which France simply does not have data on women in the military because they decided not to disaggregate the data. Norway had a similar issue; they only decided it was important to disaggregate data on soldiers by sex about 20 years ago.

The WomanStats project lists a number of variables of interest in regards to women’s participation in national militaries, such as EWCMS-LAW-1 (Are women allowed to serve in the military? What about in combat? Compare to military service requirements for men? Are women the targets of recruitment as well as men?) and EWCMS-DATA-1 (How common are women in the military? How many hold leadership positions?). However, neither provide an easily accessible dataset that would allow for a systematic analysis of women’s participation in national militaries.

Although the lack of datasets on women in national militaries is generally unfortunate, this also presents plenty of opportunities for researchers. A global dataset providing estimates of women’s prevalence in the different branches of national militaries, even if limited in temporal scope, would open up a completely new quantitative research agenda.

**DATA ON THE WOMEN, PEACE AND SECURITY AGENDA**

In 2000, the UN Security Council adopted resolution 1325, an important, formal commitment to the WPS agenda. UNSCR 1325 called for women’s participation in peace and security governance, the protection of women, and prevention of violence. Furthermore, it formalised the overarching aim of gender mainstreaming. A number of subsequent resolutions differed in their emphasis on these four aspects, reflecting changes in understanding and scope of the WPS agenda.47

**Gender mainstreaming**

To advance gender mainstreaming, the Secretary-General’s report on WPS in October 2004 urged all UN member states to develop comprehensive action plans. A National Action Plan (NAP) outlines the policies or the course of action that a country plans to adopt to fulfill objectives and attain goals pertaining to the WPS agenda. The first country to develop a NAP was Denmark in 2005, followed by Norway, Sweden, and the UK the next year. As of March 2018, 74 countries have adopted NAPs.48

What do we know about these NAPs and how they shape policies?

In 2014, a study examined 40 of the 42 NAPs in existence at the time.49 They found stark geographical patterns. Twenty-two of the 42 countries were in Western Europe, and at the time of the study, not a single country in the Middle East and North Africa (MENA) region had adopted a NAP.50 West Africa presents a small cluster of countries that adopted NAPs while only a few countries in Central-Latin America and the Asia-Pacific region adopted NAPs. Hand in hand with this geographical pattern, the authors also find a pattern of where NAPs are located in governmental structures. Countries in the Euro-America block locate the responsibility for NAPs in foreign ministries. This placement indicates an outward-looking understanding of the WPS agenda in which foreign aid should

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50 Since then Iraq, Palestine, and Jordan have adopted NAPs.
foster the four pillars of UNSCR 1325 in countries with lower levels of economic development and/or which are affected by conflict. In contrast, NAPs in developing and/or post-conflict countries are inward-looking, focusing on supporting domestic peace processes and post-conflict reconstruction. In light of the substantial increase of NAPs since the release of this initial study, a new systematic analysis of NAPs, their governmental locations, geographical patterns and contents, would offer valuable insights in how countries’ understanding of NAPs has developed.

Besides spurring NAPs, UNSCR 1325 also set gender mainstreaming efforts within the UN into motion. For example, UNSCR 1325 also includes an explicit call for integrating a gender perspective into UN PKOs and for increasing women’s participation in all post-conflict reconstruction efforts. So what do we know about the UN efforts in this regard? Anne-Kathrin Kreft has examined this question by analysing the extent of gender mainstreaming in UN peacekeeping mandates. She provides a systematic analysis of an original dataset covering all 71 UN PKOs from 1948 until 2014, in which she illustrates that gender mainstreaming of mandates is associated with high levels of conflict-related sexual violence. In line with this, research shows the UN Security Council is more likely to address conflicts in a resolution when there are reports of conflict-related sexual violence. These studies suggest that the international community is responsive to sexual violence, which is a narrow, but very visibly gendered aspect of conflicts, and that the gendering of UN PKO mandates is not necessarily guided by the universalist norms of women’s participation as advocated for in the WPS agenda. This raises the question of how much progress there has been in terms of women’s participation.

**Participation**

A growing number of states have appointed women to lead their defence ministries. Nonetheless, men continue to dominate this space. A comprehensive cross-national dataset on the appointment of defence ministers covering the post–Cold War era sheds light on the factors that lead to men’s dominance and helps us understand women’s access to the defence ministry. Tiffany Barnes and Diana O’Brien show that when traditional beliefs about the masculinity of the position shape the government’s perception of the defense ministry, women remain excluded from it. The factors that contribute to such a masculine understanding are involvement in fatal disputes, large military expenditure, and dictatorial governments. On the other hand, when societal expectations of women in politics change, women also emerge as defence ministers, for example in states with female chief executives and women in the legislature. Similarly, when the defence ministry is conceived of in less traditional and bellicose ways, for example in countries associated with PKOs, women are also more likely to lead it.

Besides the defence ministry, the foreign ministry presents another traditionally male-dominated realm. A recent cross-sectional dataset of ambassador appointments finds that 85 per cent of the world’s ambassadors are men. The dataset contains 6,990 ambassador appointments made by the 50 highest ranking countries in terms of GDP in 2014. On average a country appoints 96 ambassadors, with a minimum of 33 (Singapore) and a maximum of 165 (China). Examining men’s and women’s placement, Ann Towns and Birgitta Niklasson find a gendered pattern of post allocation: men are more likely to serve as ambassadors in prestigious locations associated with higher economic and military power, while women are more likely to serve as ambassadors.


in less high-status countries. Put differently, even after accounting for the general overrepresentation of men as ambassadors, men are more likely than women to serve in countries that are deemed important based on their military expenditure and economic output.

Considering these imbalances in defence and foreign ministries and the frequent sidelining of civil society organisations, it is not surprising that one of the core WPS aims—increasing women's participation in peace processes—remains out of reach. A frequently cited UN Women study found that in 31 major peace processes in the period between 1992 and 2011 women constituted only 9 per cent of negotiating teams and only 4 per cent of signatories of peace agreements. This is regrettable for a number of reasons. First, from a normative perspective, women should be part of any comprehensive peace process. Second, there now is reliable evidence that women's participation in peace processes is associated with more durable agreements. Put differently, through collaboration across diverse groups, women's involvement in peace processes improves the quality of peace agreements and facilitates their implementation. UNSCR 1325, however, did not seem to have the desired positive effect in terms of increasing women's participation in peace processes. Since its adoption, there has been no significant increase in the number of women as signatories of peace agreements.

The absence of women at the negotiating table corresponds to an absence of references to women in peace agreements. A recently released dataset examining 1,518 peace agreements between 1990 and 2015 finds that only 315 (21 per cent) contain explicit text references to women and/or gender. An early analysis of a subsample of 1,168 agreements found an encouraging temporal pattern: before the passage of UNSCR 1325 only 11 per cent of agreements had included references to women, whereas after UNSCR 1325 27 per cent of agreements included such references. The dataset also codes references to men and boys, sexual orientation and family, enabling researchers to look beyond just women and take gender seriously in their analysis. To date, this dataset offers the best opportunity to systematically examine previous claims about the role and effect of gendering peace agreements.

At the same time, it is important to remember that women's presence and text references to women are not a magical solution. It is far more complicated than “add women and stir”. For example, Kara Ellerby’s study of women’s substantive representation in peace processes shows that women’s presence does not solve issues of meaningful participation. She emphasises the need for three factors: an explicit women’s agenda, access to the peace process, and advocacy within the process. These datasets on the gendered dimensions of peace agreements as well as women’s participation in defence and foreign ministries present invaluable opportunities for systematic analysis that can serve to improve these three dimensions.

**Prevention and protection**

Research shows that the UN Security Council interprets the WPS pillars of protection and prevention very narrowly. Although all conflicts are inherently gendered, the UN primarily focuses on sexual violence. Research using the SVAC dataset shows that the UN Security Council is more likely to pass resolution on a conflict if there are reports of high levels of sexual violence, that gender mainstreaming in UN PKO mandates is more likely in conflicts involving sexual violence, and that UN PKOs are more likely to deploy to conflicts in which sexual violence is reported. Peacekeepers, however, only have a limited mitigating effect on the perpetration of sexual violence. Peacekeepers, however, only have a limited mitigating effect on the perpetration of sexual violence.

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### Table III. Overview of studies on gender mainstreaming, participation, protection and prevention

<table>
<thead>
<tr>
<th>Study</th>
<th>Area</th>
<th>Key Findings</th>
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• 22 of the 42 countries were in Western Europe and at the time of the study, not a single country in the MENA region had adopted a NAP  
• Countries in the Euro-America block locate the responsibility for NAPs in foreign ministries  
• Developing and/or post-conflict countries place NAPs in interior ministries to support domestic peace processes and post-conflict reconstruction |
| Anne-Kathrin Kreft, “The Gender Mainstreaming Gap: Security Council Resolution 1325 and UN Peacekeeping Mandates” | Gender mainstreaming and UN Security Council Resolutions | • Original dataset covering all 71 UN PKOs from 1948 until 2014  
• High levels of conflict-related sexual violence → gender mainstreaming in UN peacekeeping mandates more likely |
| Michelle Benson and Theodora-Ismene Gizelis, “UN Resolutions and Sexual Violence in Civil Wars” | Gender mainstreaming and UN Security Council Resolutions | • Reports of conflict-related sexual violence → UN Security Council more likely to address conflict in a resolution |
| Tiffany D Barnes and Diana Z O’Brien, “Defending the Realm: The Appointment of Female Defense Ministers Worldwide” | Defence ministries | • Strong traditional beliefs about the masculinity of the position → women less likely to lead defence ministry  
• Country’s involvement in fatal disputes → women less likely to lead defence ministry  
• Large military expenditure → women less likely to lead defence ministry  
• Dictatorial governments → women less likely to lead defence ministry  
• Countries associated with PKOs → women more likely to lead defence ministry |
| Ann Towns and Birgitta Niklasson, “Gender, International Status, and Ambassador Appointments” | Diplomacy | • 85 per cent of the world’s ambassadors are men  
• Gendered pattern of post allocation  
• Men more likely to serve as ambassadors in prestigious locations associated with higher economic and military power  
• Women are more likely to serve as ambassadors in less high-status countries |
| Pablo Castillo Diaz and Simon Tordjman, “Women’s Participation in Peace Negotiations: Connections between Presence and Influence” | Peace processes | • In 31 major peace processes in the period between 1992 and 2011 women constituted only 9 per cent of negotiating teams and only 4 per cent of signatories of peace agreements |
• Agreements signed by women → higher number of peace agreement provisions aimed at political reform, and higher implementation rates for provisions |
| Michelle Benson and Theodora-Ismene Gizelis, “Mandating Protection: The Impact of UN Peacekeeping Operations on Sexual Violence in Civil Wars” | Peacekeeping and Prevention of SVAC | • Inclusion of police forces in UN missions → mitigating effect on levels of sexual violence |
Another forthcoming study shows that it is primarily the inclusion of police forces in UN missions that have a mitigating effect on levels of sexual violence. This further underlines the importance of multidimensional and robust mandates for UN peacekeeping missions.

Peacekeeping plays a central role in protection and prevention efforts. This in turn raises questions about the extent to which the WPS agenda has influenced women's participation in such operations. The short answer is: since the adoption of UNSCR 1325, PKOs have seen an increase in the numbers of female peacekeepers, a process often referred to as gender balancing. However, we know more than this. Examining women's participation in the military contingents of UN PKOs, Sabrina Karim and Kyle Beardsley find that female peacekeepers are primarily sent to environments that are deemed less hostile. Instead of sending female peacekeepers to conflicts which would warrant the deployment of women—i.e. conflicts in which there are high levels of violence against local women—women are deployed to areas where there is little risk. This suggests that the UN is missing an opportunity for more meaningful gender balancing, which could help alleviate local women's security concerns.

**Limitations**

The collection of (conflict) data in general faces a number of obstacles including access, accuracy, and reliability. Cross-national comparisons further face the difficulties of finding data that are indeed comparable and also cover enough countries to draw meaningful generalisations and inferences. This often means relying on a limited number of English speaking sources, which are incapable of fully capturing the nuances of local contexts. In addition, cross-national data often do not adequately reflect sub-national, regional, urban-rural, economic, or ethnic differences. Accentuating or brushing over these differences bestows states and international organisations with great arbitrating powers as interlocutors and gatekeepers who provide or deny access, and often makes data collection politically motivated and biased. They decide what counts, what is counted, and what is omitted. Hence data collection and publication are political acts. Combined, these factors mean that "incomplete data can be the result of resource limitations, deficient collection mechanisms, or active attempts by governments to hide their discriminatory or depraved behavior."

Conflict-related sexual violence magnifies these challenges because it often is specifically used to shame and silence survivors. Research on sexual violence is limited by the "tip of the iceberg" phenomenon, i.e. low level of reporting despite high prevalence. This renders an accurate count of incidents of sexual violence virtually impossible. The SVAC dataset attempts to attenuate this problem by providing four prevalence categories: 0—no reports of sexual violence; 1—some reports of sexual violence (up to 25 reported incidents); 2—sexual violence is reported as widespread (25–999 reported incidents); 3—sexual violence is reported as massive, systematic, "terror tactic" or "tool of war" (1,000 or more reported incidents). However, this risks conflating prevalence ("massive") with intent ("terror tactic"), which further highlights the political nature of data collection and coding.

The silencing of survivors has further implications in addition to the difficulty of accurately estimating the prevalence of sexual violence. Data collection often fails to capture the intersectional nature of (sexual) violence, which occurs along dimensions of age, ethnicity, religion, and class. The original SVAC dataset seeks to mitigate these issues by explicitly coding


64 Clair Apodaca, “Overcoming Obstacles in Quantitative Feminist Research”, Politics & Gender 5 (3) (2009), 419.

65 Apodaca, 423.

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disaggregated information on ethnicity, nationality, religion, age, location, timing, and type of sexual violence. However, the dataset itself is limited by its sources, meaning reports by Human Rights Watch, Amnesty International, or the US State Department frequently do not contain these details, or may omit them to protect survivors from retaliation.

The SVAC coding manual, which is publicly available, is in many ways exemplary in its clarity and rigor. Its stringent application ensures the greatest possible comparability across countries and years. This, however, admittedly also has a downside. If a report does not clearly identify who (perpetrator) did what (form of sexual violence) when (year) with a clear connection to a conflict listed by the Uppsala Conflict database, then it is not coded, which can lead to incorrect estimates. For example, an Amnesty International special report might include details of sexualised torture of detainees by a government covering a five or ten year period. Although the separate interview excerpts in the report suggest widespread or even systematic patterns, the individual survivors’ quotes that fulfil all coding criteria might only warrant a coding of “1” (some reports of sexual violence). In other cases there might be a shift over time in how much attention the individual reporting organisation pays to sexual violence. This is particularly relevant for countries and conflicts in which there are multiple non-state actors such as India, Myanmar, and Colombia. For example, in the past the US State Department frequently referred to different Marxist-inspired communist groups as guerrilla groups without distinguishing which group perpetrated what kind of violence.

All of the mentioned data collection efforts share these limitations in some form. Yet these challenges and shortcomings do not mean we should stop systematic data collection and analysis. Rather it highlights the importance for feminist quantitative research to remember that any data collected on conflict, sexual violence, and/or women’s lives and experiences in general are at best incomplete and at worst politically motivated. Accordingly, ethical and responsible use of such data requires honest reflection of these political implications and any statistical findings must be interpreted cautiously.

CONCLUSION

Future research

These various datasets open the door for a multitude of potential research projects. Importantly, these datasets promise to help bridge the divide between feminist theorising and systematic data analysis. Feminist theories offer new perspectives to mainstream conflict research, which needs new theoretical concepts, approaches, and arguments, if it wants to evolve and remain relevant. Similarly, these datasets offer feminist scholars an opportunity to apply their rich theoretical arguments using different methodologies. The resulting synergies have the potential to shape policy-making and have a wide impact.

These datasets highlight, however, not just what we know, but also what we do not know. We know very little about the long-term consequences of conflict-related sexual violence, exploitation, and abuse. Does this type of violence affect citizens differently than less overtly gendered
violence? How do citizens perceive national and international authorities, if their respective representatives are involved in SEA at home or abroad? We also know very little about women’s numbers and roles in national armies and how their service affects them and society at large. Another question is: How do female ambassadors shape foreign policy? When do women as ambassadors also conduct feminist foreign policy? Or, put differently, how do they shape diplomacy both in terms of style and content? Are agreements that contain text references to women more or less successful in ending conflicts? If they end conflicts, are they more durable, less durable, no different to other agreements? These, and many other questions, wait to be examined whether it is by scholars using these existing datasets or compiling their own.

Challenges

This short overview of the data landscape regarding, gender, women, peace and security highlights the recent progress in data quality and availability. It shows great potential, yet at the same time many aspects of the WPS agenda and peace and conflict more generally continue to lack systematic data. This is particularly unfortunate because it prevents a broader inclusion in mainstream research and limits its policy impact. The continued collection of sex-disaggregated data is crucial. However, recent funding cuts put the future of both research and policy programs at risk.67

The primary challenge, therefore, is maintaining the political and institutional support for research projects focused on gender and the WPS agenda. Yearly sex-disaggregated data are fundamental to all of these (and any future) data projects. Only if researchers, practitioners, and policy-makers have access to sex-disaggregated data, can they conduct detailed and robust analyses that can inform and shape policies. Accordingly, governments and international organisations need to bolster, rather than cut, their funding for such research programs, while limiting their influence on the data collection and dissemination process.

The inherently gendered nature of conflicts requires a comprehensive engagement with the different gendered aspects and consequences of conflict. Systematic data collection and analysis is fundamental to such a comprehensive engagement. From addressing sexual violence, exploitation, and abuse to understanding women’s impact as diplomats, feminist scholarship can and should inform systematic analyses to provide new directions for research and policy-making. To move both feminist and mainstream conflict research forward it is imperative to build strong connections and harmonise these different approaches. In bringing them together it is important to remember that “feminist-inspired research is merely an analytical tool. Feminist principles apply to the act of research, the questions asked, and the data collected”.68 Non-participation in mainstream quantitative research does not make it less prevalent, but adhering to feminist principles and implementing them consciously has the potential to substantially improve if not transform it.

Any data collected on conflict, sexual violence, and/or women’s lives and experiences in general are at best incomplete and at worst politically motivated. Accordingly, ethical and responsible use of such data requires honest reflection of these political implications and any statistical findings must be interpreted cautiously.


BEST PRACTICES IN COLLECTING AND INTERPRETING DATA

1. When using others’ data:
   • Has it gone through a peer-review process?
   • Take a look at the data; if possible do a random spot check of one or two cases.
   • Check the coding manual—are funding, data sources, collection, and decision making processes clear, justified, and logical?
   • Contact authors if you have questions about collection and/or coding procedures.
   • Be clear in how you manipulate or modify the data for your own research purposes.

2. When collecting your own data:
   • Consult “Conflict Consortium Standards & Best Practices for Observational Data” and “Best practices in the collection of conflict data”\(^{69}\)
   • Choose your data sources carefully.
   • Be consistent to avoid missing or biasing your data.
   • Be transparent about all stages of the process including funding, data sources, collection, coding, and analysis.
   • Provide a clear coding manual that accurately reflects collection and coding procedures.
   • Provide inter-coder reliability statistics, discuss examples of difficult (or ambiguous) cases, and provide confidence estimates for individual data points.
   • Make your data publicly available for others.

3. When interpreting data:
   • Acknowledge and reflect on the inherently political nature of both data collection and analysis.
   • Reflect on what data are missing and what this implies.
   • Keep in mind that incomplete data can still be representative of actual patterns.
   • Acknowledge inherent uncertainty associated with data and the associated difficulties in differentiating between increased prevalence and increased reporting.
   • Openly address data problems and your efforts to mitigate them.

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Centre for Women, Peace and Security, London School of Economics and Political Science, Houghton Street, London WC2A 2AE