

Women on the Frontline: Rebel Group Ideology and Women's Participation in Violent Rebellion

Reed M Wood, School of Politics and Global Studies, Arizona State University

Jakana L Thomas, Department of Political Science, Michigan State University

Accepted for publication at the *Journal of Peace Research*

Abstract

Despite the frequent participation of women in armed groups, few studies have sought to explain the variation in their roles across different rebellions. Herein, we investigate this variation. We argue that the political ideology a group adopts plays a central role in determining the extent of women's participation, particularly their deployment in combat roles. Specifically, we link variations in women's roles in armed groups to differences in beliefs about gender hierarchies and gender-based divisions of labor inherent in the specific ideologies they adopt. We evaluate hypotheses drawn from these arguments using a novel cross-sectional dataset on female combatants in a global sample of rebel organizations active between 1979 and 2009. We find that the presence of a Marxist-oriented 'Leftist' ideology increases the prevalence of female fighters while Islamist ideologies exert the opposite effect. However, we find little evidence that Nationalism exerts an independent influence on women's combat roles. We also note a general inverse relationship between group religiosity and the prevalence of female fighters. Our analysis demonstrates that political ideology plays a central role in determining whether and to what extent resistance movements incorporate female fighters into their armed wings.

Keywords: rebellion, female combatants, rebel ideology

Corresponding author: reed.wood@asu.edu

Women's participation in the guerrilla forces of the Kurdistan Worker's Party (PKK) and the allied People's Protection Units (YPG) highlights the prominent roles that women have played in their conflict with the Islamic State in the Levant (ISIL) (e.g. Takalovian, 2015). This high prevalence of women within the Kurdish forces and among its leadership challenges the conventional view that armed conflict is a heavily male dominated enterprise and women, when present, are simply victims. While the PKK is not unique in its decision to recruit and deploy female fighters, it nonetheless represents a distinct minority of rebel groups where women constitute a substantial portion of the overall combat force. Indeed, most rebellions appear to limit women's direct participation in violence to specialized roles such as suicide bombers or assassins, relegate them to support roles, or otherwise restrict their participation.

Given the asymmetric nature of civil conflict and the constant human resource demands most rebels face, recruiting and deploying female fighters potentially offers substantial strategic benefits for rebel movements. At the very least, the decision to recruit women widens the pool of potential combatants. Although concerns about women's ability to endure the rigors of guerrilla warfare might be used to justify groups' decisions to eschew female recruitment, the practicality of this argument is dubious given the routine recruitment of children to serve as fighters despite their relatively poor physical and mental qualifications. Moreover, many adult women possess strength, stamina, and endurance that matches or exceeds that of many adolescent boys and some adult men (Goldstein, 2001: 159-164). Female fighters have also proven effective in numerous guerrilla conflicts (Alison, 2009; Gonzalez-Perez, 2008; Goldstein, 2001: 77-83). As a result, sex-based disparities in physical capabilities do not adequately account for the comparatively low prevalence of women in armed groups; nor do they explain variation in women's participation across groups.

A limited supply of willing female recruits also represents an unconvincing explanation. Despite the inherent risks, women are often eager to join armed groups to participate in combat

activities. Like men, women are often motivated to engage in high-risk collective action by their commitment to political or social causes (Bloom, 2012; Kampwirth, 2002; Viterna, 2013). Moreover, female rebels often seek out combat roles because these positions are typically viewed as more prestigious than support roles, partially because of the associated risks (Viterna, 2013: 125-126). Yet despite both supply- and demand-side incentives for female fighters, only a small number of organizations employ women in combat roles in substantial numbers.

What explains the variation in the presence and prevalence of female fighters across armed rebellions? In this manuscript, we assert that a group's *political ideology*—the package of ideas or beliefs that annunciates the grievances of a particular group, identifies a set of political or social objectives on behalf of that group, and proposes a plan of action for accomplishing those objectives (Gutiérrez Sanín & Wood, 2014: 215)—plays a central role in determining women's participation in armed groups. While some previous studies examine how particular ideologies have influenced women's recruitment by specific violent organizations, we present a more general argument linking differences in beliefs about gender hierarchies and gender-based divisions of labor inherent in specific ideologies to the presence of female fighters within groups espousing those ideologies. Moreover, we assess these relationships systematically using a novel, group-level dataset reflecting the prevalence of female fighters in a global sample of rebel organizations between 1979 and 2009. Our results suggest that ideology plays a central role in determining the prevalence of female fighters within rebel movements.

Gendered recruitment strategies

Existing studies identify several factors that either compel a group's leadership to create opportunities for women to participate as fighters, even where such actions contradict embedded social norms, or increase women's opportunities to join an armed group. Chief among these

explanations are the strategic benefits female combatants provide and the influence of social networks and prior activist experience. The former explanation focuses on rebel leaders' willingness to create opportunities for female fighters, while the latter addresses women's interests in those opportunities and their ability to take advantage of them when they arise.

Strategic perspectives assert that groups that routinely engage in clandestine actions such as sabotage, assassinations, and terrorism are more likely to recruit women. The ability to conceal themselves and avoid suspicion may also make female bombers and combatants more effective and lethal combatants, further highlighting their strategic benefits (Bloom, 2012; O'Rourke, 2009; Thomas & Bond, 2015). Women are also often deployed as suicide bombers because they are expected to elicit greater public sympathy and publicity for an organization (Speckhard, 2008; Stack, 2009). This perspective suggests that rebel leaders recruit female fighters explicitly because doing so is expected to advance the group's goals.

Other scholars focus on the important role social network connections play in shaping women's participation in armed groups. Particularly, both 'quotidian' and political networks serve as important conduits through which women enter armed movements (Parkinson, 2013; Viterna, 2013). Studies of women's participation in Latin American rebellions also demonstrate that prior activism and participation in non-violent social and political movements influence women's recruitment into rebel movements (Kampwirth, 2002; Mason, 1992; Reif, 1986). Participation in such networks contributes to rising political awareness and an increasing sense of efficacy, which in turn motivates women to seek out opportunities to become involved in more high-risk forms of collective action. Moreover, where such parallel structures exist, network connections facilitate movement from the non-violent to armed wings of movements.

While both perspectives help explain the presence of female combatants, they are poorly suited to explain the large-scale deployment of female fighters or substantial variations in women's

participation across armed groups. Strategic approaches are limited, as they do not specify how leaders address challenges associated with controverting embedded gender norms and hierarchies. Furthermore, the deployment of large numbers of female combatants may also negate their strategic advantage as clandestine operatives. Explanations based on contact with pre-existing networks are also limited. While they identify some of the conditions that facilitate women's entry into armed movements when opportunities are present, they take for granted that such opportunities exist. In reality women are present only when an organization's leadership makes the explicit decision to openly recruit women.

Understanding the composition of a rebel fighting force requires that the influence of the size and features of the candidate pool as well as the factors that shape rebel leadership's perspectives regarding acceptable recruits are identified. We assert that women's participation in armed groups is expected to be highest where there is strong demand for female combatants among the group's leadership and where there exists a large supply of women willing to take advantage of such opportunities if they are made available. Therefore, we focus on the factors that influence the willingness of a rebel group's leadership to employ female recruits in combat activities as well as factors that influence the number of women willing to accept roles as combatants when they become available.¹ In subsequent sections we argue that a group's political ideology potentially exerts a strong influence on both conditions.

Political ideology and rebel strategy

While often overlooked in studies of rebel group behaviors, previous studies suggest that a group's political ideology can exert a powerful influence on the strategies it adopts. Kalyvas and Balcells

¹ While coercive recruitment is common, we focus primarily on voluntarily recruitment.

(2010) find that Marxist rebellions are more likely to adopt irregular warfare as a combat strategy compared to other types of conflicts. Moghadam (2008; see also Piazza, 2009) finds that insurgent groups espousing radical Islamist ideologies, particularly those affiliated with Al-Qaeda, are most likely to engage in suicide attacks. Other scholars have also found that ideology impacts the governance structures rebel groups create (Suykens, 2015), shapes rebel recruitment and support strategies (Goswami, 2014; Gutiérrez Sanín & Wood, 2014), influences patterns of rebel-civilian interactions (Gutiérrez Sanín & Wood, 2014), and may influence the severity and targets of rebel violence (Drake, 1988; Piazza, 2009; Thaler, 2012).

Armed groups espouse a diverse array of political ideologies; however, existing studies have routinely focused on only a few broad, well-established political ideologies that possess a coherent set of common tenets. For instance, in his analysis of the relationship between group ideology and the lethality of terror attacks, Piazza (2009) suggests that the ideologies examined (Leftist, Rightist, Nationalist, and Islamist agendas) are ‘collectively exhaustive’ but also overlapping and therefore not mutually exclusive. Drake (1998: 55) identifies a broader range of ideologies espoused by violent political organizations but acknowledges that few of these categories are mutually exclusive and instead often form ideological hybrids.² Both authors note specifically that nationalist ideologies (i.e., ethno-nationalist, separatist) often intersect with both Islamist and Leftist ideologies.

Following these scholars, we acknowledge that political ideologies are not inherently mutually exclusive and often interact. However, we attempt to identify a core group of distinct ideologies that potentially influence the group’s willingness to employ women in combat roles and women’s interest in accepting those opportunities when they exist. Particularly, we are interested in

² Drake identifies separatism, religion, liberalism, anarchism, communism, and fascism as distinct, non-mutually exclusive ideologies.

ideologies that espouse specific attitudes toward traditional social hierarchies, including patriarchy and gender-based divisions of labor. As we discuss in greater detail below, we focus primarily on Leftist (e.g. Marxist-inspired) ideologies, Islamism, and Nationalism. We also briefly discuss other ideological types.

Rebel ideology and female combatants

While existing studies have noted the important role group ideology can play in female recruitment, most studies have examined the role of specific ideologies in a small number of groups. For instance, studies of women in Central American rebellions assert that the Marxist ideologies of the FMLN, Sandinista, and Zapatista movements help explain the high prevalence of female combatants in those groups (Kampwirth, 2002; Mason, 1992; Reif, 1986; Viterna, 2013). Similarly, studies of female suicide bombers among Islamist groups such as Hamas, the Al-Aqsa Martyr's Brigade, and various Chechen factions note the important role radical ideology plays in women's recruitment (Bloom, 2012; Speckhard, 2008). These studies demonstrate how both ideologies can potentially promote female recruitment; yet, they offer no systematic evidence of the comparative influence of group ideologies on the scope of women's participation. Thomas and Bond's (2015) recent analysis represents a partial exception. However, their argument focuses on whether groups espouse a 'gender egalitarian ideology' rather than specific political ideologies. Consequently, the comparative influence of different political ideologies on the recruitment of female combatants remains under-theorized and under-analyzed.

To address this oversight, we argue that group political ideologies shape leaders' interests in recruiting female combatants (*demand*) as well as the willingness of potential female recruits to participate in roles typically reserved for men (e.g. as fighters) (*supply*). First, ideologies inculcating an egalitarian ethos and advocating radical revisions to traditional social orders prompt rebel leaders to

create opportunities for women to occupy non-traditional roles in rebellions. By contrast, ultra-conservative and reactionary political ideologies that advocate the preservation or restoration of traditional social hierarchies and gender-based divisions of labor discourage a rebel group's leadership from employing women in combat roles.

Second, a group's political ideology directly impacts the ways in which female supporters choose to participate. Women are not a monolithic group and may support revolutionary organizations as well as conservative and reactionary movements. Indeed, many women support conservative groups explicitly because these groups advocate the preservation or reassertion of traditional gender roles and hierarchies. However, because female supporters of these groups embrace fundamentalist attitudes, they are generally less likely to seek out or take advantage of opportunities to serve as combatants as such roles contradict their core beliefs. By contrast, women who support revolutionary causes often express a strong desire to occupy positions that challenge traditional gender norms or divisions of labor. We therefore expect that women amenable to non-traditional roles will seek out and accept those opportunities when they become available while women who are generally opposed to such opportunities avoid them when offered. Coupled with the argument that ideology shapes group leaderships' willingness to create such opportunities, we expect to see larger numbers of female fighters where groups embrace ideologies that challenge traditional social hierarchies and the lowest numbers of female fighters among groups that seek to protect or reestablish these hierarchies.

Leftist ideologies

Leftist movements typically draw on Marxist philosophies of class struggle and promote revolution as a strategy through which to liberate peasants, workers, and other oppressed class groups. Moreover, rebellions adopting these ideologies typically propose a fundamental reshaping of existing

social hierarchies in order to ‘liberate’ the population. This goal, which is deeply rooted in the Marxist groups’ guiding political ideology, influences their attitudes towards patriarchy and gender hierarchies.³ Karl Marx, for example, suggested that the position of women within society represented an important gauge of progress (Brown, 2012: 12). Moreover, he argued that patriarchy was a key source of women’s oppression and called for a dramatic change in the division of labor between sexes, which would inevitably lead to women’s liberation (Goldstein, 1980: 330-331). Mao Zedong similarly argued that women’s equality and liberation was a crucial step in the revolution of society and believed that a woman’s struggle was synonymous with a class struggle (Yuan, 2005: 51-54). Mao’s recruitment strategy also explicitly called for incorporating women into the movement because he believed an agrarian revolution could not take place without their support (Gautam, Banskota & Manchanda, 2001).

Many modern leftist organizations integrated these ideas, adopting platforms of gender egalitarianism and advocating for policies that would reduce or end discrimination against women in their societies. For example, prominent women in the Communist Party of Nepal have stated that ‘[their] party considers women as [a] basic revolutionary force’ and that ‘women have more to gain than men from the People’s War’ (Gonzalez-Perez, 2008: 69-70). Abdullah Ocalan (2015), leader of the PKK, has stated that ‘the level of woman’s freedom and equality determines the freedom and equality of all sections of society.’ The Sandinista leadership explicitly called for an end to laws discriminating against women, the eradication of prostitution and domestic servitude, and for women to organize in defense of their own rights (Reif, 1986: 159). Similarly, the Tigrayan People’s

³ We do not assume that Marxist groups are inherently feminist or that their commitment to women’s rights matches their rhetoric, only that they seek to abolish or reshape traditional social hierarchies, including those related to gender.

Liberation Front (TPLF) publicly highlighted women's oppression and worked to convince women to fight against existing social and political structures that restricted their rights (Veale, 2003: 29-30). These examples illustrate Marxist groups' stated commitment to challenging social orders that restrict women's freedom and demonstrate the frequency with which they employ these perspectives in their rhetoric. Anecdotal evidence also suggests that Marxist and Maoist groups often prioritize more equal access to decision-making and combat roles, thereby providing women greater access to a range of positions within these organizations (Shekhawat, 2015). The Sandinista leadership, for example, attempted to cultivate a climate of egalitarianism among men and women where advancement was based on merit and skill rather than privilege (Reif, 1986: 159). Similarly, despite rural India's severe gender inequality, the egalitarian ethos of the Maoist Naxalites led to women's inclusion in all ranks of their organization (Gonzalez-Perez, 2008: 66).

This discussion suggests that Marxist and related Leftist ideologies encourage a rebel group's leadership to create opportunities for women's participation as combatants. Moreover, these opportunities often serve as an important tool for recruiting female fighters. (H1) *Groups that espouse Leftist ideologies are more likely to employ female fighters.*

Islamist ideologies

Islamist rebels are those that seek to organize society and government in accordance with a strict (fundamentalist) interpretation of Islamic law. Whereas Leftists movements typically seek to establish structures that upend traditional social hierarchies, radical Islamist organizations strive to reassert such norms and patterns of social order, including gender relations (Robinson, Crenshaw & Jenkins, 2006: 2013). Radical Islamism rejects the idea that appropriate societal norms or values can be derived from a secular society and instead believes that the pure teachings of the Qur'an and Hadiths should be the basis of a society's organization (Roald, 2003). Moreover, because these

groups often view social order as divinely ordained, the reaffirmation of traditional gender roles and the preservation of gender-based divisions of labor and duties often represent central Islamist goals (Moghadam, 2003). These perspectives have implications for women's participation in violent Islamist organizations.

Classical Islamic texts permit women to participate in jihad. However, they also indicate that women's participation in jihad is primarily limited to support and care for male fighters, and they are excluded from combat except under specific dire circumstance (Cook, 2005; 2007: 34; Lahoud, 2014). Cook (2005: 377) notes further that the meaning of jihad is reinterpreted for women in the classical literature, and for women the rewards typically associated with participating in jihad were not connected with actual fighting but with performing other duties that better conformed to societal gender norms. Contemporary fundamentalist Islamist groups draw on these texts and traditions to define the roles that women are permitted or encouraged to play within an armed organization. For example, Yussaf al-Ayyiri, an ideological leader of the Saudi branch of Al-Qaeda, argues that women are expected to participate in jihad, not by participating in combat, but by offering encouragement and support to men that choose to perform jihad (Johnson 2006, 170). An ISIL manifesto detailing women's expected roles in society and expectations for its female supporters asserts that women's primary roles should be as wives and mothers (Winter, 2015: 22).⁴ Moreover, according to the document, deviations from traditional gender hierarchies—such as when women no longer respect the authority of men or seek to fulfill men's roles—are viewed as the cause for social upheaval in the Muslim world. Because violent jihad is viewed by radical Islamist

⁴ Although ISIL's all-female morality police force (Al-Khanssa) has perpetrated violence against women for transgressing the group's laws, there is no evidence that it participates in combat.

groups as a duty reserved for Muslim men only, women serving as combatants appear anathema to the group's preferred social order and norms.

We expect that women's roles within Islamist organizations will follow from these perspectives on gender hierarchies. While women are often invited to play active and important roles in Islamist organizations, the leadership of these organizations are most likely to exclude them from combat roles or permit them to adopt these roles only in very small numbers, under specific circumstances. Since combat service both deviates from accepted female roles and challenges traditional gender hierarchies, groups espousing Islamist ideologies will constrain women's participation to roles that are consistent with their socially and religiously mandated roles as wives, mothers, and caregivers.

Islamist ideologies also shape the supply of women interested in serving in combat roles. Many women support radical Islamist groups explicitly because they agree with the groups' fundamentalist principles (Lahoud, 2014; Sjoberg & Wood, 2015; Von Knop, 2007). Recent examinations of women's roles in Islamist groups highlight female members' desires to fulfill traditional support roles because they are consistent with their own religious convictions (Sjoberg & Wood, 2015; Winter, 2015). While a small number of women who hold fundamentalist views may be willing to transgress social and religious norms to serve as combatants, most will be reluctant to accept such opportunities even if they are offered. Therefore, we expect that the traditional gender attitudes of both an Islamist movement and its female supporters will jointly suppress the prevalence of female combatants within such organizations.

Although a fundamentalist Islamist ideology generally encourages rebels to exclude women from combat, some Islamist groups deploy female combatants in particular circumstances. Particularly, the use of female suicide bombers in Islamist organizations appears to have increased in recent years (Bloom, 2012; Davis, 2013). O'Rourke (2009) argues that this reflects a strategic

response to the use of female bombers among secular groups and suggests that Islamists' views on the appropriateness of female fighters may be malleable rather than fixed. This perspective is partially corroborated by the willingness of some Islamist religious leaders to issue fatwas that sanction martyrdom operations for women (Cook, 2007). Similarly, a few Islamist scholars also propose that women 'have an obligation to go out to fight (*jard 'ayn*) in defense of their territory and their faith' (Lahoud, 2014: 780), suggesting that women's participation in violence is acceptable in some contexts, particularly for self-defense and when enemies have defiled women's bodies (Von Knop, 2007: 406). Moreover, while integrating women into a guerrilla fighting force might transgress Islamic law by requiring women to reside in close quarters with unrelated men, some combat engagement like suicide terrorism easily allows women to comply with Sharia law requiring modesty and the separation of unrelated members of the opposite sex (Lahoud, 2014: 783). Consequently, while Islamist groups may not embrace the notion of female combatants enthusiastically, they are willing to modify their stance on female fighters when doing so provides strategic benefits.

While Islamist rebels are expected to employ female combatants under narrow circumstances, we nonetheless expect the overall prevalence of female fighters within such groups to be quite low because the large-scale incorporation of female fighters is contrary to groups' attitudes toward gender hierarchies and inconsistent with the beliefs of such groups' female supporters. Moreover, even where Islamist groups do employ women for violence, their roles are likely to be highly circumscribed, and women are not likely to be integrated into the main combat force. (H2)

Groups that espouse Islamist ideologies are less likely to employ female fighters.

Nationalist ideologies

Nationalist agendas are typically advanced by organizations pursuing independent states for their kinship groups and generally assert that adherents offer their loyalty to this group above all other

affiliations (Van Evera, 1994: 6). Despite the prevalence of ‘nationalist’ rebellions, some scholars have argued that Nationalism fails to meet the criteria of a distinct ideology. Freedon (1998) argues that Nationalism lacks wide-sweeping and comprehensive answers to a range of important political questions prompted by societies, and therefore does not propose solutions to consequential issues relating to social justice, resource distribution, conflict resolution, and the (re)structuring of society, as do comprehensive political ideologies. Instead, it often constitutes a small component of other well-established ideologies. As a result, the concepts and ideas proffered by nationalist agendas typically depend on other contextual factors, which produce ‘irreconcilable diversities’ and inconsistencies in the various nationalisms espoused by different groups (Freedon, 1998). While nationalist groups advocate an agenda based largely on group claims to autonomy or the superiority of an in-group over other groups, no broader sets of beliefs are common to all nationalist groups.

Nationalist agendas are often too vague to articulate clear positions on issues such as gender hierarchies or gender norms. The frequency with which nationalist agendas overlap and interact with other, more coherent ideologies represents an additional challenge. Specifically, other ideologies tend to sublimate nationalism when groups combine them (Freedon, 1998). Thus, where groups with nationalist agendas do adopt positions on these issues, the impetus for doing so often originates from some other ideological tradition. For instance, many nationalist movements that employed substantial numbers of female combatants—including the South West African People’s Organization (SWAPO), Euskadi Ta Askatasuna (ETA), and the Eritrean People’s Liberation Front (EPLF)—drew heavily on Marxist ideology.

Despite skepticism over the ideological coherence of nationalism, several scholars have argued that nationalism is inherently gendered, and often serves to disempower, control and repress women. These scholars contend that nationalism serves to affirm traditional gender roles for women and often asserts that women’s primary duties are the cultural and biological preservation of the

group (Mayer, 2012; Nagel, 1998; Yuval-Davis, 1993). Such attitudes restrict women's roles in society and suggest that the ideas inherent in nationalist ideologies may serve to depress the prevalence of female fighters. Yet, some scholars question the extent to which nationalist ideologies are inherently misogynistic or gender oppressive and assert that additional social and political factors often determine the extent to which nationalism results in the exclusion or repression of women (Yura-Duval, 1993: 630).

Because nationalist ideologies lack specificity, are largely context dependent, and are often subordinate to other ideologies, they are unlikely to exert a strong independent influence on rebel organizations' decisions to deploy female fighters. (H3) *Nationalist ideologies have an ambiguous influence on the prevalence of female combatants.*

Secular and religious ideologies

The above arguments suggest that Marxist and other Leftist groups are most likely to include substantial numbers of female combatants while Islamist groups should be among the least likely. With respect to gender norms and hierarchies, these ideologies represent ideal types. The former seeks to overturn traditional social hierarchies and replace existing norms, including those that marginalize or suppress women. The latter seeks to preserve these hierarchies. As a result, these two ideologies may be viewed as opposite ends of a spectrum ranging from revolutionary to reactionary in terms of attitudes toward gender hierarchies.

Existing studies (e.g. Inglehart & Norris, 2003) find a strong link between religiosity and attitudes and/or practices regarding gender equality and sex roles in society. As a result, gender equality, and by extension, the frequency of women's participation in non-traditional social roles, is likely highest in more secular populations and lowest in highly religious populations. Groups espousing secular ideologies may therefore be more likely to recruit female combatants compared to

groups with more radical religious ideologies. Although more general, this expectation is consistent with our arguments regarding Leftist and radical Islamist organizations, which respectively represent staunchly secular (or anti-religious) and fundamentalist religious ideologies. While Leftist and Islamist ideologies represent the extremes of this spectrum, other ideologies should be positioned between these flanks and are likely to be ordered by their degree of religiosity. In other words, we anticipate an inverse relationship between the religiosity inherent in a group's ideology and the presence of female combatants. (H4) *Female fighters are more common among groups that embrace secular ideologies compared to groups adopting more fundamentalist religious ideologies.*

Data and research design

While most previous studies have employed qualitative methods to understand the processes that lead to female recruitment in specific cases, we utilize quantitative methods and employ a novel cross-sectional dataset to evaluate our hypotheses.⁵ Although most groups rely on the support of civilian women, and many organizations venture to recruit female members to serve in support roles, relatively few organizations permit women to serve as combatants. We therefore focus specifically on whether and to what extent groups incorporate women into their fighting forces.

Data on female fighters

The Women in Armed Rebellion Dataset (WARD), which we constructed for this analysis, includes information on the prevalence of female fighters for a sample of 211 rebel organizations active

⁵ Our dataset improves on two existing datasets on this topic (Henshaw 2016; Thomas & Bond 2015) by including a larger sample of groups and providing estimates of female combatant prevalence.

between 1979 and 2009.⁶ We base our sample on the groups included in the Uppsala Conflict Data Program's (UCDP) Dyadic Dataset (Harbom, Melander & Wallensteen, 2007).⁷ Relevant information on women's participation in rebel groups was collected through an extensive search of news reports, academic accounts, and international and non-governmental organization reports. In order to make a determination about women's inclusion and roles within an organization, we required the confirmation of three independent sources. Furthermore, because we are interested in women's participation as combatants and fighters, we required evidence that a group formally incorporated women in the organization and deployed them specifically in combat roles.

In conceptualizing and defining female fighters, we draw on definitions commonly used in disarmament, demobilization, and reintegration (DDR) programs sponsored by the United Nations and related international organizations. These programs often differentiate 'female combatants' from 'females associated with armed groups' (see UN Women, 2012: 22-23).⁸ The first category, upon which we focus, refers to the subset of female group members who are armed and participate in organized combat activities on behalf of a rebel organization. This includes women employed in frontline combat, female suicide bombers, or assassins, and female auxiliaries or members of civil defense forces who receive military training, carry combat weapons, and could be called upon to participate in combat when necessary.⁹ It excludes women who served in other capacities such as

⁶ Missing values for some covariates reduces the sample to 191 observations.

⁷ We exclude coups and related military factions. Overall, we successfully code roughly 75% of the relevant groups included in the UCDP dataset. See our online appendix for additional coding details.

⁸ Bouta, Ferks & Bannon (2005) discuss the difficulties in distinguishing between these roles, particularly among female participants.

⁹ This is similar to Viterna's (2013: 35) definition of 'female guerrillas.'

fundraisers, recruiters, couriers, or informants but do not engage directly in organized violence on behalf of an organization. We construct two indicators to assess our hypotheses regarding the presence of female fighters in armed groups. *Female fighters* is a dichotomous variable indicating the presence of any number of female fighters. We consider female fighters absent from the group where reports explicitly state that women did not participate in combat, where women's roles were described as exclusively supportive (e.g. caregivers, fundraisers, couriers, etc.), or where we were unable to locate any evidence of women participating in combat despite locating substantial information regarding other group characteristics.

Female combatant prevalence is a categorical indicator accounting for the estimated proportion of a group's combat force comprised of women. We construct a categorical indicator rather than a direct estimate of the proportion of female combatants in an armed group because different sources sometimes provide varying estimates of the numbers of women serving as combatants and occasionally provide only qualitative descriptions of the extent of women's participation. Therefore, we utilize a blunter coding scheme to increase our confidence that we accurately capture the prevalence of female combatants within rebel groups, although doing so reduces the precision of the resulting measure. Table I describes the categories of *Female combatant prevalence*.¹⁰

Table I Here

We report the distribution of *Female combatant prevalence* for the sample in Figure 1. The figure illustrates that just over half of the groups in the sample show no evidence of women in their armed

¹⁰ Using an alternative 'high' estimate of this variable, which uses a more lenient definition of 'combatant', produces similar results. See appendix for details.

wings. The remaining groups are distributed across the other three categories and demonstrate a downward trend: there are more groups that include a small number of female fighters than there are groups that include large numbers of female fighters. Figure 2 presents the locations of insurgencies with *Female fighters*.¹¹ States for which there is no evidence of female fighters receive a speckled pattern. Lighter shading represents states in which at least one group had a ‘low’ prevalence of female fighters. Darker gray reflects a ‘moderate’ prevalence of female fighters, while black shading indicates a ‘high’ prevalence of female fighters in at least one group in the state. The figure illustrates that *Female fighters* are a global phenomenon.

Our data also reveal substantial variation in the prevalence of female fighters among groups operating within the same country. For example, during the Lebanese civil war, nearly 30% of the Amal militia members were female. Evidence suggests, however, that these women engaged exclusively in support roles such as providing food to male combatants and caring for the needs of soldiers’ families, but were excluded from combat; by contrast, hundreds of women served in combat positions within the Christian militias that constituted the Lebanese Forces and small numbers of female combatants fought with the left-wing groups that composed the Lebanese National Movement (Schulze, 2004: 136; Shehadeh, 1999: 153-157). Evidence of such variation in women’s roles across groups allows us to create our group-level prevalence measure.

Political ideology

We include a range of political ideologies in our statistical analyses. To code most groups’ ideologies, we rely on information contained in existing databases such as the Terrorist Organization Profiles (TOPs), which are available from the National Consortium for the Study of Terrorism and

¹¹ We report the category of the group with the highest *female combatant prevalence* in a given country.

Responses to Terrorism (START, 2015) and the Nonstate Armed Groups (NAGs) dataset (San-Akca, 2015).¹² Both databases assign groups to a few broad ideological categories, including *Leftist*, *Religious*, *Nationalist*, or *No ideology*.¹³ *Leftist* ideologies include all groups that adopt a Marxist-inspired ideology (e.g., Socialist, Communist, Maoist, or Marxist-Leninist) and those that were otherwise coded as ‘Leftist’ in the aforementioned datasets. *Religious* groups are those that mobilize primarily or exclusively to promote the interests of a specific religion or religious sect and seek to either establish autonomy from the central government or impose their group’s religious doctrine on the entire state. *Nationalist* groups pursue similar goals on behalf of a distinct ethnic or national community. Finally, *No ideology* reflects organizations that do not have a coherent, clearly stated political ideology according to the data sources (e.g. the Revolutionary United Front [RUF] and the National Patriotic Front of Liberia [NPLF]).¹⁴

These broad categories represent a useful starting point for our analysis. However, in order to assess the hypotheses above, we require more specific categorizations of group ideologies. First, we require information on *Islamist* ideologies. To construct this variable, we identify the subset of groups coded as ‘religious’ from the aforementioned databases and then code a group as *Islamist* if existing studies or reports refer to the group as such or if the group publicly advocates for the

¹² The NAGs dataset also uses the UCDP Dyadic Dataset as its sample.

¹³ TOPs uses the term ‘Other’ to refer to groups with no coherent ideology or idiosyncratic ideologies that do not fit in any of the other categories. The NAGs dataset uses ‘No Ideology.’ These datasets also include ‘rightist’ as a category. However, this coding applied to only a very small number of groups in our sample. We therefore choose not to use it as a distinct category.

¹⁴ This does not imply that these groups lack political goals. However, they do not appear to ascribe to an overarching political belief system or organize around a specific ideology or identity.

implementation of a system of government based on Sharia law or the establishment of a theocratic state based on Islamic principles among its primary political objectives.¹⁵ Since we focus on the organization's aims rather than its religious identification, our coding excludes a large number of Muslim ethno-nationalist insurgencies and other rebellions in Muslim majority states. The Moro National Liberation Front (MNLF) in the Philippines and the Free Aceh Movement (GAM) in Indonesia, for example, are Muslim majority rebel movements that are *not* coded as *Islamist* because their goals do not explicitly include the establishment of religious rule or reshaping of political and social institutions based on Islamic principles. By contrast, Hamas in Israel-Palestine and the Armed Islamic Group (GIA) in Algeria pursued the establishment of a religiously governed state explicitly and are coded as *Islamist* accordingly.

In order to examine Hypothesis 4, which posits that groups espousing fundamentalist religious ideologies are less likely to include female combatants compared to more secular movements, we need to coarsely arrange a set of ideologies along a continuum of religiosity. Due to their Marxist origins, Leftist groups are most likely to reject the role of religion and the influence it has on gender equality. Secular movements and groups without coherent ideologies should occupy an intermediate place on this spectrum. Rebels espousing religious ideologies, particularly fundamentalist Islamist beliefs, are the least likely to support gender egalitarianism. We create variables to examine this proposed spectrum. In addition to *Leftist* and *Islamist*, the flanks of this spectrum, we create the variables *Secular (non-leftist)*, *No ideology*, and *Religious (non-Islamist)*. *Secular (non-leftist)* reflects all non-Leftist groups that espouse a non-religious ideology. This includes secular nationalist groups that did not adopt a Leftist ideology and rightist groups. *Religious (non-Islamist)*

¹⁵ We rely on publicly available data (books, journal articles, group webpages, etc.) to code this variable.

represents movements that espouse a religious ideology but do not embrace a fundamentalist Islamist ideology.

Control variables

We control for several potentially relevant confounders. First, we account for the group's military capabilities by including the variable *Weak rebels*. Weaker rebels may be more likely to recruit female fighters to help address their resource needs. This variable also helps account for potential bias resulting from disparities in the levels of information available for different rebel groups since more militarily capable rebel groups are more likely to generate greater media coverage. This binary indicator reflects whether a group is coded as 'much weaker' than the state in the Non-state Actor Dataset (NSA) (Cunningham, Gleditsch & Salehyan, 2013). The binary indicator *Active 2000s* reflects cases ongoing as of 1999, which helps account for potential bias caused by the possibility that better information is available for more recent conflicts.

We control for the *Duration* of the rebellion because leaders may be reluctant to recruit women initially but may permit their inclusion once the group becomes larger and more established. We also include *Secondary education ratio*, which reflects the ratio of female-to-male students enrolled in secondary school, to help account for the general level of gender equality within a society (World Bank, 2015). We include the variable *Development level*, measured as the natural log of national per capita GDP. Including this variable helps isolate the effect of gender equality from other development-driven effects. Because our data are time invariant, both measures represent the average values of the variables over the course of the conflict.

We account for the use of *Forced recruitment* strategies because groups that rely on them are often indiscriminate in their selection and may be more likely to recruit female fighters to fill resource needs. This binary measure reflects whether abduction, press-ganging, or other forcible recruitment strategies are ever employed during a given conflict (Cohen, 2013). Because of the

potential strategic advantages associated with female suicide bombers, we also include a binary variable indicating whether a group utilizes *Suicide terrorism*, which is taken from the Chicago Project on Security and Terrorism (2015). Finally, we include *Percent Muslim*, which reflects the estimated percentage of the state population adhering to Islam (Maoz & Henderson, 2013), to help isolate the effect of the Islamist ideology measure from broad cultural values inherent in Muslim countries.

Analysis and discussion

Because our dependent variables (*Female fighters*) and (*Female combatant prevalence*) are binary and categorical, we utilize logit and ordered logit models, respectively, to assess our hypotheses. We present the results from our models in Table II. Models 1 and 2 demonstrate the influence of *Leftist* and *Islamist* ideologies on *Female fighters* and *Female combatant prevalence* respectively. The variable accounting for *Leftist* ideologies is positive and statistically significant, suggesting that it increases both the presence and prevalence of female fighters relative to groups that espouse other ideologies. By contrast, the coefficient for *Islamist* ideologies is negative and statistically significant, which suggests that groups espousing this ideology are less likely to employ female fighters. These results support hypotheses 1 and 2. The *Nationalist* ideology variable is positive in both models, but it is not significant in either. This result is consistent with Hypothesis 3.

Table II Here

In Models 3 and 4, we explore the relationship between *Nationalist* ideologies and female combatants further. For these models, we identify groups as having a *Nationalist* ideology, a *Non-nationalist* ideology, or *No ideology* (the excluded category). *Non-nationalist* ideologies reflect all groups that adopt a coherent political ideology that does not advocate political goals related to a specific

ethnic or national community. We find no evidence that *Nationalist* ideologies influence the presence or prevalence of female fighters compared to the excluded group *No ideology*. In both models, the variable is positive but fails to attain statistical significance. This result provides additional support for Hypothesis 3. It is possible that the relationship between female fighters and groups embracing nationalism is driven by components of the other ideologies that often overlap or intersect with it or by other contextual factors. This potentially complex relationship deserves additional scrutiny in future analyses.

In Models 5 and 6 we evaluate Hypothesis 4, which linked religiosity and group attitudes toward gender equality and thus their willingness to employ female fighters. In these models, *No ideology* is the excluded category. In both models, the sizes of the coefficients decline across the ideological categories and are negative for the variables reflecting religious ideologies. This suggests an inverse relationship between religiosity and the use female combatants. *Leftist* has the largest coefficient among the ideological categories, and it achieves statistical significance in both models. *Secular (non-Leftist)* is also positive in both models, but the coefficients are substantially smaller than those for the variable representing groups with leftist ideologies. These results are also insignificant. The coefficients for *Religious (non-Islamist)* are negative but statistically indistinguishable from the excluded category in both models. Lastly, the coefficient for *Islamist* is negative and substantively large in both models and attains statistical significance. While the results are generally consistent with Hypothesis 4, they also provide robust support for Hypotheses 1 and 2.

Figure 3 presents marginal effects based on Model 6. Each panel depicts the likelihood of observing a given level of *Female combatant prevalence* for rebel groups espousing a given ideology. For instance, the probability of ‘no evidence’ of female combatants in *Leftist* groups is approximately 15%. The likelihood increases to nearly 60% for *Secular (non-leftist)* groups, to 66% for *Religious (non-Islamist)* groups, and to 88% for *Islamist* groups. The predicted probability of observing a ‘Low’ level

of female involvement is flatter across most ideological categories, though there is a slight downward trend as we move from secular to religious categories. For instance, while *Leftist* groups have a 30% probability of employing this level of female combatants, that probability drops to only 9% for *Islamist* groups. A more distinct trend exists for 'Moderate' levels of female combatants, where *Leftists* groups are most likely to have a moderate number of female combatants (30%), followed by *Secular nationalist (non-Leftist)* (9%), *Religious (non-Islamist)* (7%), and *Islamist* groups (2%). Finally, the lower right panel demonstrates that only *Leftist* rebel groups have a substantial likelihood of having a 'High' prevalence of female combatants (24%). For all other ideologies the probability ranges from roughly 0 to 3%.

While the results and the substantive effects show the strong suppressive effect of Islamist ideology on the presence and prevalence of female combatants, recent studies highlight women's increasing roles in Islamist organizations as suicide bombers. To better understand this relationship, we examine the potential conditioning impact of this group strategy on the relationship between Islamist ideologies and female fighters. Roughly 11% of the groups included in our sample engaged in suicide terrorism as a tactic. Of the groups that engaged in suicide bombings, nearly 74% were *Islamist*, 16% were *Leftist*, 6% were *Religious (Non-Islamist)*, and the remaining 3% were *Secular (non-Leftist)* groups. Groups with *No ideology* did not engage in suicide bombings. Overall, 35% of groups that employed suicide bombers embrace a *Nationalist* ideology; however, more than half of these groups were Islamist-Nationalists. These figures highlight the well-established link between Islamist ideologies and the use of suicide terrorism (e.g. Moghadam, 2008). With respect to the presence of female fighters, we find that 28% of the *Islamist* groups in our sample employed any female fighters; moreover, all Islamist groups in our sample that employed female fighters engaged in suicide terrorism. This suggests that while Islamist groups are sometimes willing to employ female fighters, women are still likely to participate in relatively small numbers and their roles are likely to be limited.

Other non-Islamist groups in our sample (e.g. PKK, LTTE) also utilized female suicide bombers, indicating that the phenomenon is not limited to Islamist groups. However, unlike women fighters in Islamist organizations, these groups typically permit women to participate in a broader range of combat duties. A closer examination of our data reveals that virtually all of the Islamist groups in our sample that employed female combatants utilized them exclusively as suicide bombers.¹⁶

Turning to the control variables, *Secondary education ratio* is positive across the models but achieves significance only in Models 2 and 6. By contrast, *Development level* is generally insignificant in our models. *Active 2000s*, which accounts for more recent conflicts, is positive but insignificant, implying that female combatants are not more common in recent conflicts. *Duration* is positive and significant in most models, suggesting potentially that rebels may only be more likely to incorporate female combatants once the group is larger and better established. Alternatively, longer rebellions may create more opportunities to observe female combatants. *Weak rebels* is consistently negative and approaches significance in some of models, which challenges the notion that rebels recruit female fighters only when they are weak and suggests that factors other than resource or manpower constraints lead groups to recruit female fighters. *Forced recruitment*, however, is positive and achieves significance in some models. This finding deviates from the results for weak rebels, suggesting that researchers may wish to further investigate the relationship between human resource needs, group recruitment strategies, and the prevalence of female fighters. Consistent with previous studies, *Suicide terrorism* is positive and significant in most models. Finally, *Percent Muslim* is insignificant across the

¹⁶ While we located evidence of these groups deploying female suicide bombers, we found no significant evidence of women performing other frontline combat duties (e.g., Islamic Jihad, Hamas, Boko Haram, Ansar al-Islam).

models, implying that rebel groups in Muslim countries are no less likely to include female combatants than rebels in other states.

Conclusion

In this paper, we develop a general framework through which to understand cross-sectional variation in women's participation in rebellion. We focus on group political ideology as a central explanatory factor for cross-group variation in the prevalence of female fighters. We argue that the perspectives on gender norms and hierarchies present in specific political ideologies strongly influence the scope of women's participation in armed groups. In particular, groups interested in challenging existing social hierarchies are most likely to recruit large numbers of female fighters, while those seeking to preserve traditional hierarchies are most likely to eschew women's participation. Consistent with this argument, we find that Marxist and other Leftist insurgencies employ the highest numbers of female fighters while an Islamist ideology substantially depresses the proportion of female fighters within rebel organizations. We find no independent relationship between nationalist ideology and women's combat participation, which is consistent with our argument that nationalist groups' attitudes toward women tend to be shaped by other ideologies groups embrace. More generally, we find that groups espousing secular philosophies are more likely to recruit women fighters while groups adopting religious ideologies are less likely.

Our research is significant for several reasons. Although previous studies have examined how a religious-secular typology explains female suicide bombers (O'Rourke, 2009), our analysis suggests that a more nuanced categorization may better explain the prevalence of female fighters more generally. Moreover, while some existing research examines how particularistic ideologies influence women's recruitment in specific cases, scholars have yet to develop a comprehensive argument to explain the relationship between ideology and female recruitment in rebel groups.

Relatedly, while a general relationship between ideology and female recruitment has been assumed, existing research has yet to establish this relationship by performing systematic, comprehensive tests. Our research fills these gaps. In particular, our novel dataset on women's combat roles in global contemporary rebellions enables us to establish general patterns regarding ideology and women's recruitment using systematic empirical tests. Our research also demonstrates that the impact differs across ideologies, and that some assumed relationships do not hold. Most notably, we find that despite many well-known nationalist organizations including women combatants, nationalist ideology exerts a comparatively weak influence on women's combat participation.

Our research also raises several questions for future research. First, we find that ideologies are infrequently pure types, and they often overlap and interact with one another. Therefore, greater attention to the impact of intersecting ideologies is warranted. Second, our research focuses on several broad ideologies but does not incorporate all relevant rebel philosophies. Future work might examine how other political ideologies we do not explicitly address herein influence rebel group recruitment and, more particularly, how they map onto the ideological spectrum we propose. Finally, the role of ideology may change over time, potentially in response to the entry of female combatants or other changes in the strategic environment. Consistent with existing research, we note that Islamist insurgencies have increasingly allowed women to participate in non-traditional roles, even if limited mostly to suicide bombing. While our data do not allow us to consider such temporal variation, future research and data collection efforts may wish to examine how group ideologies and group perspectives of women's inclusion vary jointly over time.

DATA REPLICATION

ACKNOWLEDGEMENTS

The authors thank the participants in the "How Gender Shapes Violence and Coercion" conference at Arizona State University; faculty and students at the Kroc Institute for International Peace Studies

at Notre Dame University; Benjamin Appel, Sarah Shair-Rosenfield, Dara Cohen, Jessica Braithwaite, and Cyanne Loyle for their helpful comments and suggestions. The authors also thank Zuhaib Mahmood, Daniel Hansen, and Jacquelyn Schneider for their research assistance.

- Alison, Miranda (2009) *Women and Political Violence: Female Combatants in Ethno-national Conflict*. New York, NY: Routledge.
- Bloom, Mia (2012) *Bombshells: Women and Terrorism*. Philadelphia, PA: University of Pennsylvania Press.
- Brown, Heather (2012) *Marx on Gender and the Family: A Critical Study*. Leiden, Netherlands: Brill.
- Bouta, Tsjard, Georg Ferks & Ian Bannon (2005) *Gender Conflict and Development*. Washington, DC: World Bank.
- Chicago Project on Security and Terrorism (2015) *Suicide Attack Database*. (30 September 2015 Release). [Data File]. Available: <http://cpostdata.uchicago.edu/>
- Cohen, Dara K (2013) Explaining rape during civil war: Cross-national evidence (1980-2009). *American Political Science Review* 107(3): 461-477.
- Cook, David (2005) Women fighting in Jihad. *Studies in Conflict and Terrorism* 28(5): 375-384.
- Cook, David (2007) *Martyrdom in Islam*. Cambridge, UK: Cambridge University Press.
- Cunningham, David, Kristian Skrede Gleditsch & Idean Salehyan (2013) Non-State Actors in Civil Wars: A new dataset. *Conflict Management and Peace Science* 30(5): 516-531.
- Davis, Jessica (2013) Evolution of the global Jihad: Female suicide bombers in Iraq. *Studies in Conflict and Terrorism* 36(4): 279-291.
- Drake, C J M (1998) The role of ideology in terrorists' target selection. *Terrorism and Political Violence* 10(2): 53-85.
- Freden, Michael (1998) Is nationalism a distinct ideology? *Political Studies* 46(4): 748-765.
- Gautam, Shobha, Amrita Banskota & Rita Manchanda (2001) Where there are no men: Women in the Maoist insurgency in Nepal. In: Rita Manchanda (ed.) *Women, War, and Peace in South Asia*. New Delhi, India: Sage, 214-251.
- Gleditsch, Kristian Skrede (2002) Expanded trade and GDP data. *Journal of Conflict Resolution* 46(5): 712-724.
- Goldstein, Leslie (1980) Mill, Marx and women's liberation. *Journal of the History of Philosophy* 18(3): 319-334.
- Gonzalez-Perez, Margaret (2008) *Women and Terrorism: Female Activity in Domestic and International Terror Groups*. New York, New York: Routledge.
- Goswami, Namrata (2015) *Indian National Security and Counter-Insurgency: The Use of Force vs. Non-violent Response*. New York, NY: Routledge.

- Gutiérrez Sanín, Francisco & Elisabeth Jean Wood (2014) Ideology in civil war: Instrumental adoption and beyond. *Journal of Peace Research* 51(2): 213-226.
- Harbom, Lotta, Erik Melander, & Peter Wallensteen (2007) Dyadic dimensions of armed conflict (1946-2007). *Journal of Peace Research* 45 (5): 697-710.
- Henshaw, Alexis (2016) Where women rebel: Patterns of women's participation in armed rebel groups: 1990–2008. *International Feminist Journal of Politics* 18(1): 39-60.
- Inglehart, Ronald & Pippa Norris (2003) *Rising Tide: Gender Equality and Cultural Change*. Cambridge, UK: Cambridge University Press.
- Johnson, Loch (2006) *Strategic Intelligence: Understanding the Hidden Side of Government*. Westport, CT: Greenwood Publishing Group.
- Kalyvas, Stathis & Laia Balcels (2010) International system and technologies of rebellion: How the end of the Cold War shaped internal conflict. *American Political Science Review* 104(3): 415-429.
- Kampwirth, Karen (2002) *Women and Guerrilla Movements: Nicaragua, El Salvador, Chiapas, Cuba*. University Park, PA: Pennsylvania State University Press.
- Lahoud, Nelly (2014) The neglected sex: The jihadis' exclusion of women from jihad. *Terrorism and Political Violence* 26(5): 780-802.
- Maoz, Zeev & Errol A. Henderson (2013) The world religion dataset (1945-2010): Logic, estimates, and trends. *International Interactions* 39: 265-291.
- Mason, David T. (1992) Women's participation in Central American revolutions: A theoretical perspective. *Comparative Political Studies* 25(1): 63-89.
- Mayer, Tamar (2002) Gender ironies of nationalism: Setting the stage. In: Tamar Mayer (ed). *Gender Ironies of Nationalism: Sexing the Nation*. New York: Routledge, 1-24.
- Moghadam, Assaf (2008) Motives for martyrdom: Al-Qaida, Salafi jihad, and the spread of suicide attacks. *International Security* 33(3): 46-78.
- Moghadam, Valentine (2003) *Modernizing Women: Gender and Social Change in the Middle East*. Boulder, CO: Lynne Reiner Press.
- Nagel, Joane (1998) Masculinity and nationalism: Gender and sexuality in the making of nations. *Ethnic and Racial Studies* 21(2): 242-269.
- Ocalan, Abdulla (2015) Democratic modernity: Era of woman's revolution. Available: <http://www.pkkonline.com/en/index.php?sys=article&artID=235>
- Parkinson, Sarah (2013) Organizing rebellion: Rethinking high-risk mobilization and social networks in war. *American Political Science Review* 107(3): 418-432.

- Piazza, James (2009) Is Islamist terrorism more dangerous?: An empirical study of group ideology, organization, and goal structure. *Terrorism and Political Violence* 21: 62-88.
- Reif, Linda (1986) Women in Latin American guerrilla movements: A comparative perspective. *Comparative Politics* 18(2): 147-169.
- Roald, Anne-Sofie (2003) *Women in Islam: The Western Experience*. New York, NY: Routledge.
- O'Rourke, Lindsey (2009) What's special about female suicide terrorism? *Security Studies* 18: 681-718.
- Robinson, Kristopher, Edward Crenshaw & J. Craig Jenkins (2006) Ideologies of violence: The social origins of Islamist and leftist transnational terrorism. *Social Forces* 84(4): 2009-2026.
- San-Akca, Belgin (2015) 'Dangerous companions: cooperation between states and nonstate armed groups (NAGs). (v.04/2015). Available: http://nonstatearmedgroups.ku.edu.tr/nag_list.php
- Schulze, Kristen (2004) Communal violence, civil war, and foreign occupation. In: Rick Wilford & Robert Miller (eds.) *Women Ethnicity and Nationalism: The Politics of Transition*. London, UK: Routledge, 130-146.
- Shekhawat, Seema (2015) *Female Combatants in Conflict and Peace: Challenging Gender in Violence and Post-Conflict Reintegration*. New York: Palgrave Macmillan.
- Shehadeh, Lamia Rustu (1999) Women in the Lebanese militias. In: Lamia Rustum Shehadeh (ed.) *Women and War in Lebanon*. Gainesville, FL, University of Florida Press, 145-166.
- Sjoberg, Laura & Reed Wood (2015) *People Not Pawns: Women's Participation in Violent Extremism Across MENA*. USAID Report Brief available: https://www.usaid.gov/sites/default/files/documents/1866/CVE_RESEARCHBRIEF_PEOPLE_NOTPAWNS.pdf
- Speckhard, Anne (2008) The emergence of female terrorism. *Studies in Conflict and Terrorism* 31(11): 995-1023.
- Stack, Alisa (2009) Zombies versus Black Widows: Women as propaganda in the Chechen conflict. In: Laura Sjoberg & Caron Gentry (eds.) *Women, Gender and Terrorism*, Athens, GA: University of Georgia Press, 83-95.
- START (2015) Terrorist Organization Profiles. Available: <http://www.start.umd.edu/tops/>
- Suykens, Bert (2015) Comparing rebel rule through revolution and naturalization: Ideologies of governance in Naxalite and Naga India. In: Ana Arjona, Nelson Kasfir & Zachariah Mampilly (eds.) *Rebel Governance in Civil War*. New York, NY: Cambridge University Press, 138-157.
- Tavakolian, Newsha (2015) Meet the women taking the battle to ISIS. *Time*. April 2, 2015. Available: <http://time.com/3767133/meet-the-women-taking-the-battle-to-isis/>

Thaler, Kai (2012) Ideology and violence in civil wars: Theory and evidence from Mozambique and Angola. *Civil Wars* 14(4): 546-567.

Thomas, Jakana & Kanisha Bond (2015) Women's participation in violent political organizations. *American Political Science Review* 109(3): 488-506.

UN Women. 2012. *Identifying Women's and Peace and Security Priorities*. Available: <http://www.unwomen.org/~media/Headquarters/Media/Publications/en/03BIIdentifyingWomens.pdf>

Van Evera, Stephen (1994) Hypotheses on nationalism and war. *International Security* 18(4): 5-39.

Veale, Angela (2003) *From Child Soldier to Ex-Fighter: Female Fighters, Demobilisation and Integration in Ethiopia*. Institute for Security Studies, South Africa.

Viterna, Jocelyn (2013) *Women in War: The Microprocesses of Mobilization in El Salvador*. Oxford, UK: Oxford University Press.

Von Knop, Katharina (2007) The female jihad: Al-Qaeda's women. *Studies in Conflict and Terrorism* 30: 397-414.

Winter, Charlie (2015) *Women of the Islamic State: A Manifesto on Women by the Al-Khanssaa Brigade*. Quilliam: February 2015. Available: <http://www.quilliamfoundation.org/wp/wp-content/uploads/publications/free/women-of-the-islamic-state3.pdf>.

The World Bank (2015) *World Development Indicators* Washington, DC: The World Bank (producer and distributor). Available: <http://data.worldbank.org/data-catalog/world-development-indicators>

Yuan, Lijun (2005) *Reconceiving Women's Equality in China: A Critical Examination of Models of Sex Equality*. Lanham, MD: Lexington Books.

Yuval-Davis, Nira (1993) Gender and nation. *Ethnic and Racial Studies* 16(4): 621-632.

BIOS

Reed M. Wood, PhD in Political Science (University of North Carolina—Chapel Hill, 2010); Associate Professor, School of Politics and Global Studies, Arizona State University; research interests: political violence, human rights, gender and conflict.

Jakana L. Thomas, PhD in Political Science (Pennsylvania State University, 2012); Assistant Professor, Department of Political Science, Michigan State University; current research interests: civil war, terrorism, gender politics.

Table I. Description of female combatant prevalence categories

Category	Prevalence	Percentage (if available)	Examples
0	None/No evidence	0%	Eelam People's Liberation Front (EPRLF), Eritrean Liberation Front (ELF), Abu Sayaf Group (ASG)
1	Low	< 5%	People's Front for the Liberation of Palestine (PFLP), Provisional Irish Republican Army (PIRA), Ogaden National Liberation Front (ONLF)
2	Moderate	5 - 20%	Guatemalan Revolutionary Unity (UNRG), Sudan People's Liberation Army (SPLA), Liberation Tigers of Tamil Eelam (LTTE)
3	High	> 20%	Movement for Democracy in Liberia (MODEL), Communist Party of Nepal (Maoist), Eritrean People's Liberation Front (EPLF)

Table II. Predictors of female combatant presence and prevalence

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	<i>Logit</i>	<i>Ordered</i>	<i>Logit</i>	<i>Ordered</i>	<i>Logit</i>	<i>Ordered</i>
		<i>Logit</i>		<i>Logit</i>		<i>Logit</i>
Leftist	1.583	2.306			1.559	2.240
	0.001	0.000			0.007	0.001
Nationalist	0.420	0.224	0.297	0.130		
	0.325	0.605	0.532	0.801		
Non-nationalist			-0.017	0.288		
			0.979	0.666		
Secular (non-leftist)					0.247	0.077
					0.653	0.890
Religious (non-Islamist)					-0.512	-0.189
					0.591	0.806
Islamist	-2.836	-1.499			-2.870	-1.567
	0.022	0.004			0.018	0.024
Secondary education ratio	1.679	2.085	1.193	1.216	1.766	2.120
	0.137	0.020	0.282	0.175	0.169	0.025
Development level	-0.154	-0.355	-0.012	-0.056	-0.129	-0.332
	0.550	0.087	0.964	0.799	0.663	0.164
Active 2000s	0.319	0.509	-0.066	0.066	0.303	0.494
	0.474	0.201	0.857	0.836	0.477	0.190
Duration	0.037	0.028	0.043	0.041	0.039	0.029
	0.063	0.065	0.024	0.005	0.071	0.057
Percent Muslim	-0.171	0.257	-0.799	-0.610	-0.190	0.224
	0.786	0.729	0.221	0.385	0.765	0.765
Weak rebels	-0.517	-0.583	-0.416	-0.518	-0.462	-0.567
	0.105	0.072	0.199	0.098	0.178	0.091
Suicide terrorism	3.382	1.312	1.199	0.361	3.372	1.346
	0.034	0.044	0.084	0.497	0.017	0.030
Forced recruitment	0.715	0.525	0.663	0.592	0.720	1.346
	0.058	0.138	0.068	0.106	0.060	0.030
N	191	191	191	191	191	191
Wald X^2	54.11	46.38	36.15	34.94	76.47	50.41

Coefficients and p -values (two-tailed test). Standard errors clustered on country. Excluded categories for each model: Models 1 & 2: all Non-leftist and non-Islamist ideologies and 'no-ideology'; Models 3-6: *No Ideology*

Figure 1. Distribution of female combatant prevalence in sample

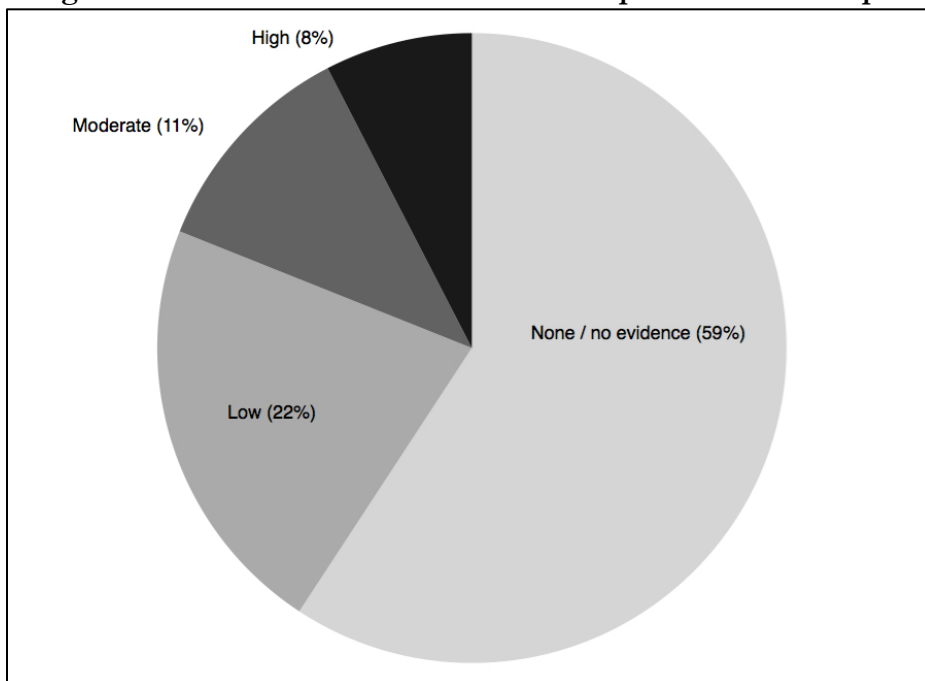
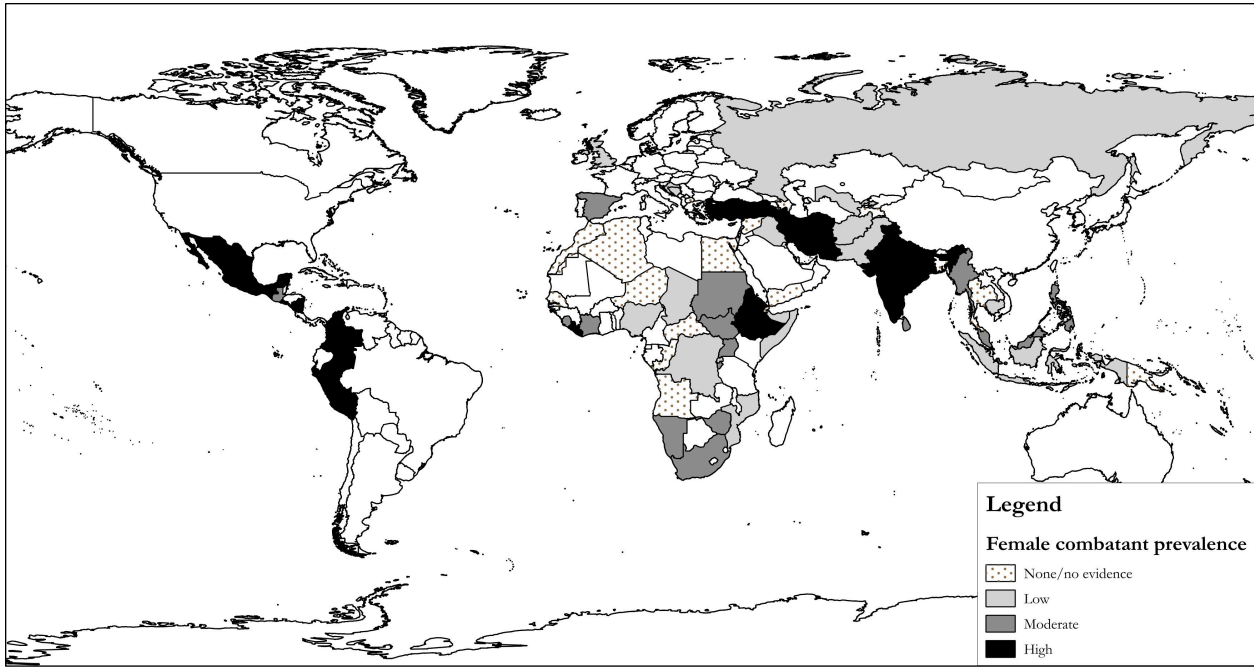
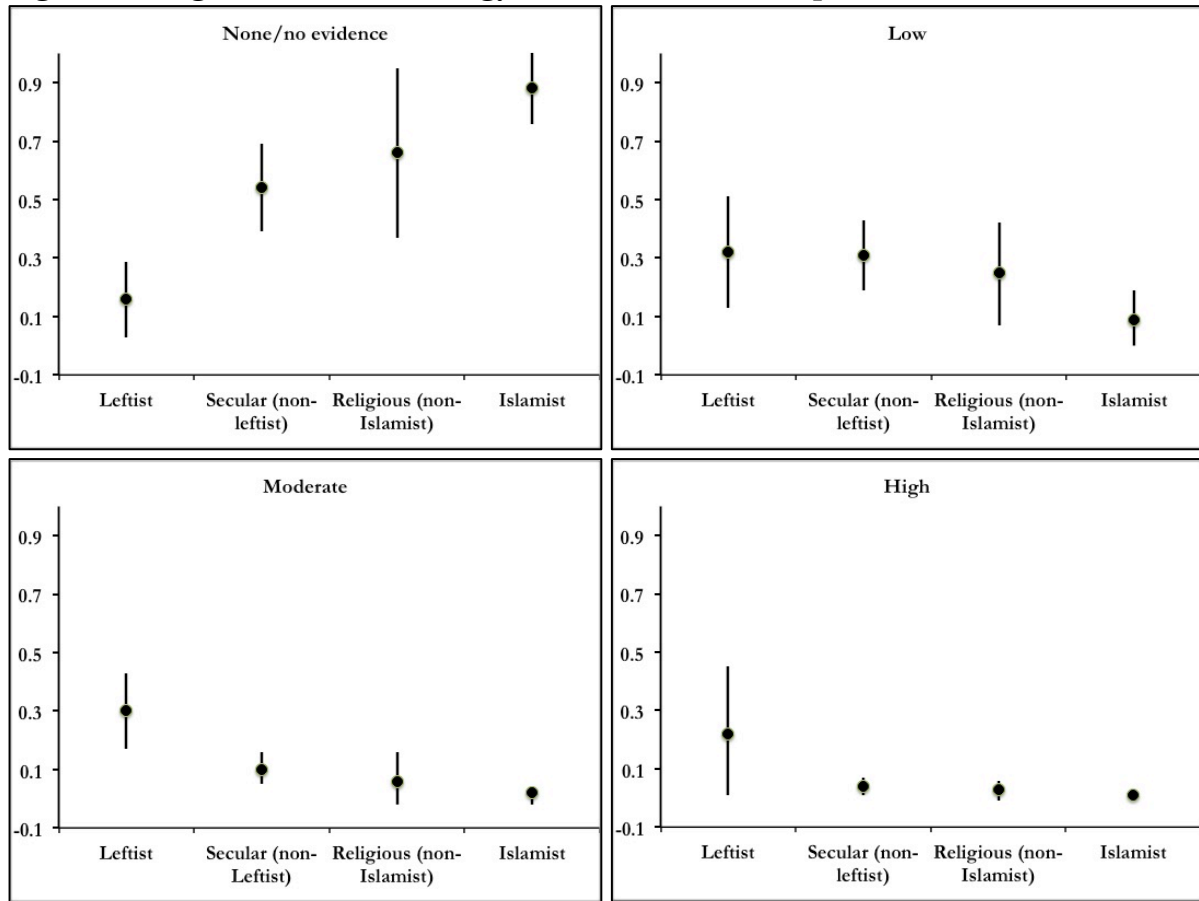


Figure 2. Female combatant prevalence, 1979-2009



Female combatant prevalence within the civil conflict states included in sample. Shading reflects highest category of prevalence among all groups active in the country during the period 1979-2009.

Figure 3. Marginal effects of ideology on female combatant prevalence



Likelihood of observing levels of *Female combatant prevalence* for rebel groups espousing the stated ideology. Control variables held at mean or median values. Predictions based Model 6 (Table II).