

## ABSTRACT

Title of Dissertation:                   HOW REBELS' GOALS AFFECT THE  
  PROVISION AND IMPACT OF MILITARY  
  SUPPORT FROM FOREIGN STATES

  Daniel Ian Siegel, Doctor of Philosophy, 2018

Dissertation directed by:           Professor Paul K. Huth, Department of  
  Government and Politics

Virtually all rebel groups fight to either overthrow the central government (center-seekers) or to separate. This dissertation presents three papers examining how these differing goals affect the likelihood and consequences of rebels receiving foreign support. The first paper hypothesizes that center-seekers are most likely to be supported by states that are militarily stronger than their home government, and that separatists are most likely to be supported by states that are militarily competitive with their home government. Center-seekers must fight intense wars against stronger opponents to achieve their goals. Therefore, I argue that only militarily strong states have reasonable chances of using support to center-seekers to accomplish their ultimate sponsorship objectives. Unlike center-seekers, separatists can accomplish their goals by fighting lower intensity wars. Consequently, support only enables

separatists to inflict modest additional damage. However, potential supporters that are militarily competitive with separatists' home governments can benefit by providing long-term support. Long-term support can provide these supporters with coercive military advantages over initially equal competitors. Statistical analysis supports the first paper's hypotheses.

The second paper analyzes how rebels' goals influence their chances of receiving either high intensity types of support (troops), or solely low intensity support (uniforms). I argue that center-seekers' are most likely to receive high intensity support from states that are militarily stronger than their home government. I also contend that separatists' are most likely to receive low intensity support from states that are militarily competitive with their home government. Empirical results support these arguments.

Finally, the third paper examines when rebel support prolongs civil war. I argue that support lengthens center-seeking wars when the rebels receive high intensity support from states that are militarily stronger than their home government. I also contend that support prolongs separatist wars when the rebels receive low intensity support from states that are militarily competitive with their home government. Statistical analysis supports these arguments. This dissertation demonstrates that rebels' goals influence 1) what types of states support them, 2) what types of support they receive, and 3) how different types of rebel support impact civil war duration.

HOW REBELS' GOALS AFFECT THE PROVISION AND IMPACT OF  
MILITARY SUPPORT FROM FOREIGN STATES

by

Daniel Ilan Siegel

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Advisory Committee:

Professor Paul K. Huth, Chair  
Professor William Lawton Reed  
Professor David E. Cunningham  
Professor Kathleen Gallagher Cunningham  
Professor Laura Dugan

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## **Dedication**

For Brette, my amazing wife

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## Introduction to the dissertation

This dissertation examines how a rebel group's goals influence what types of states are likely to support it, what intensities<sup>1</sup> of support it is likely to receive, and how support impacts civil war duration. Essentially all rebel groups have distinct goals of either overthrowing the central government or achieving greater autonomy over a limited portion of an existing state's territory (Buhaug, 2006). I refer to rebels seeking overthrow as "center-seekers" and those seeking greater autonomy as "separatists."<sup>2</sup> Before explaining why rebels' goals are important to understanding rebel support, I discuss why rebel support is a topic worthy of study, and some of the

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<sup>1</sup> I classify support as either high or low intensity. High intensity support includes troops, heavy weapons, military training, and joint operations. Low intensity support includes funding, light weapons, access to territory, etc. Refer to Siegel (2018b) for additional discussion.

<sup>2</sup> Within the categories of separatists and center-seekers, individual rebel groups do have more specific goals. For example, center-seekers often have goals of setting up either communist, Islamist, or democratic governments. Separatists may seek full independence, greater economic autonomy/rights, or increased political autonomy for their regions. Potential supporters may be more likely to support center-seekers with goals that are in line with the potential supporter's ideology (i.e. democratic states may be more likely to support democratically-inclined center-seekers). While these distinct goals within the categories of center-seekers (and separatists) could have an impact on states' rebel support decisions, this research focuses solely on whether rebels have separatist or center-seeking goals. This dissertation's main argument is that some types of states are more likely to support separatists, while others are more likely to support center-seekers, and that this occurs because these rebels generally fight different styles of wars. Separatists are more likely than center-seekers to fight lower intensity wars (Siegel, 2018c), in mountainous regions (Tollefsen & Buhaug, 2015), and near international borders (Buhaug & Rod, 2006). There is little reason to expect that separatists seeking greater political autonomy would fight drastically different styles of wars than those seeking greater economic autonomy. Furthermore, in order to achieve their goals of overthrowing or significantly reshaping their governments, there is minimal reason to believe that communist rebels would fight significantly different styles of wars than Islamist center-seekers. Hence, because gradations within the categories of center-seekers (and separatists) are unlikely to significantly impact the styles of wars they are likely to fight, I focus here solely on the distinction between separatists and center-seekers.

reasons posited for why states support foreign rebels. After discussing why rebels' goals are important to understanding rebel support, I finish this introduction by briefly explaining the plan for the dissertation's three papers and the contributions of this research.

### **Motivation for studying rebel support**

Rebel support represents a violation of the international norm of non-interference in other states' affairs. However, it is not an uncommon phenomenon. States have provided military support<sup>3</sup> to foreign rebel groups every year from 1975 through 2009. During this time, they supported an average of 41 groups per year (Hogbladh, Pettersson, & Themner, 2011). In addition to being reasonably common, rebel support also has numerous negative consequences. Support can significantly increase civil war duration (Sawyer, Cunningham, & Reed, 2017), and the number of civilians that rebels deliberately kill (Salehyan, Siroky, & Wood, 2014). It also increases the odds of interstate conflict between the supporter and the rebels' home government (Schultz, 2010). For example, Rwandan support to DRC rebels in 1998 precipitated a destructive five-year long interstate war that pitted the DRC and several of its African allies against Rwanda, Uganda, and Burundi (Uppsala Universitet (DR Congo), 2018). Finally, civil wars that terminate are significantly more likely to experience a recurrence of violence if the rebels received state support during the initial conflict (Karlen, 2017). These negative facets of rebel support provide my

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<sup>3</sup> Military support includes weapons, training, etc. See Siegel (2018c).

motivation for examining how previously unstudied elements impact the likelihood and consequences of state support to foreign rebels.

Despite the above-mentioned harmful effects of rebel support, some could contend that rebel sponsorship is not universally negative. For example, US support to Afghan center-seekers in the 1980s unseated a brutal communist government. However, this seemingly beneficial outcome was eventually tainted by the fact that these rebels went on to form the repressive Taliban government that ruled Afghanistan from 1996 through 2001. Therefore, due to the potential for these types of phenomena, and the negative consequences of rebel support discussed above, I argue that rebel sponsorship is generally harmful, and that when it is practical and feasible, third parties should take steps to prevent or constrain it.

### **What leads states to support foreign rebel groups?**

States can have multiple interests that contribute to their decisions to support foreign rebels. Syria supported Turkish separatists to attempt to improve its leverage over Turkey regarding a territorial dispute (Olson, 1997). Rwanda supported center-seekers in the DRC in order to overthrow the existing DRC government. The Rwandan government supported these rebels in part because the DRC was allowing Rwandan rebels to operate from DRC soil (Uppsala Universitet (DR Congo), 2018).

Broadly speaking, several scholars find evidence that rivalries over issues such as those described above, increase the probability of rebel support (Findley & Teo, 2006; Maoz & San-Akca, 2012; Salehyan, Gleditsch, & Cunningham, 2011). The most prominent definition of rivalry (and the one used in the studies above) contends that rivals are states that view each other as threatening competitors/enemies, which makes military confrontation reasonably likely (Thompson & Dreyer, 2011). According to this definition, issues precipitating rivalry fall into four categories: 1) territorial/spatial disputes, 2) ideological differences, 3) disputes over regional or global position (i.e. hegemony), 4) and interventions in another state's internal affairs. While these issues and the rivalries they precipitate can and do motivate rebel support, the majority of rebel support cases do not involve interstate rivalries. For example, in their research on rivalry and rebel support, Maoz and San-Akca (2012) acknowledge that just 25.7% of the instances of rebel support in their study occurred within rivalries.<sup>4</sup> Since roughly 75% of the cases of rebel support do not involve the most severe interstate tensions (i.e. rivalries), I argue that focusing solely on the types and/or intensities of tensions between states is not the only way to gain a greater understanding of when rebel support is likely. Therefore, I do not directly evaluate whether certain types of interstate tensions/rivalries are more likely to lead to rebel support. This approach represents a limitation on the research below. Nevertheless, there is a rationale behind this decision, and previous research indicates

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<sup>4</sup> Even this percentage is inflated. Many of their "rivalries," were defined by cases where the rivalry was triggered by rebel support. For example, Sudanese support to a Ugandan rebel group, the LRA, triggered a rivalry that began in 1994 (Thompson & Dreyer, 2011).

that one can significantly contribute to the conflict studies literature without directly addressing actors' specific interests (Fearon & Laitin, 2003).

Part of the rationale behind my approach is that this research is intended to point out broad patterns as to when rebel support is more likely. Below, I argue and demonstrate that one can discern clear patterns where rebel support is more likely without focusing directly on specifically identifiable interstate tensions. Similar to Fearon and Laitin (2003), I assume that tensions/grievances, specifically those between pairs of states, are nearly ubiquitous. Additionally, the anarchic structure of international relations (Waltz, 1979) suggests that pairs of states lacking clearly observable grievances may still frequently consider using rebel support in order to increase their perceived security. Operating under these assumptions, I argue that a rebel group's goals and a potential supporter's military capabilities, relative to those of the rebels' home government, are important to understanding when states are likely to provide rebel support.

### **Why rebels' goals impact the likelihood and consequences of rebel support**

Rebels' goals are important to potential supporters because they shape how the rebels would likely use support if it were provided. For example, to accomplish their goals of overthrowing their governments, center-seekers must inflict substantial damage on areas that are critical to the government's functioning. To do so, they must



fight intense conventional wars against the government, which usually has superior military forces (Siegel, 2018c). Therefore, states should be more likely to support center-seekers when they can help them achieve success fighting these types of wars, and when doing so would enable the supporter to accomplish an objective that it considers important. A potential supporter's military capabilities should play an important role in determining whether it believes it can accomplish something meaningful by supporting center-seekers.

Unlike center-seekers, separatists rarely attempt to inflict significant damage on regions that are of critical importance to the government (Siegel, 2018c). Consequently, potential supporters of separatists understand that providing assistance would rarely enable the rebels to put significant military pressure on their government. Hence, a potential supporter's military capabilities should also influence whether it believes the benefits of supporting separatists would outweigh the costs.

### **Plan of the dissertation**

The goal of this dissertation is to provide an explanation for how rebels' goals and potential supporters' military capabilities influence the provision and effect of rebel support. Part of the rationale for focusing on how these elements shape rebel support is that these factors are relevant to all actual and potential cases of rebel support. All rebel groups have goals and the overwhelming majority can be clearly identified as having either separatist or center-seeking aims (Buhaug, 2006).

Furthermore, all potential (and actual) supporters have military capabilities. Potential supporters' military capabilities will influence whether they have the capacity to obtain meaningful benefits by supporting either separatist or center-seeking rebels. Because states with greater military capabilities can provide rebels with greater quantities of support, supporters' military capabilities should also impact the consequences of rebel support. Hence, this research can provide a template that is relevant to consider when evaluating the likelihood and consequences of all potential and actual cases of rebel sponsorship.

In addition to explaining whether any type of rebel support is likely, there is value in assessing when high intensity or low intensity types of support are likely, and whether these different intensities of support have different effects. For example, Sawyer, Cunningham, and Reed (2017) argue and find that only highly fungible types of rebel support (funding and weapons) lengthen civil war. They contend that fungible support lengthens fighting by creating uncertainty regarding how much of a concession the government would have to make to convince the rebels to end their fight. I expand on their research by explaining how variation in supporters' military capabilities and the intensity of support that they provide generates differential impacts in lengthening separatist vs. center-seeking wars.

In order to evaluate how rebels' goals and potential supporters' military capabilities influence 1) the likelihood of rebel support 2) the intensity of support, and 3) the impact of support on war duration, I present three papers below. While the

papers can be read as standalone documents, they sequentially build on one another. For example, the second paper categorizes different types of support as either high or low intensity. It also describes when certain factors increase the odds that rebels receive low intensity support or high intensity support (Siegel, 2018b). The third paper goes on to explain how various support intensities have different impacts on the duration of separatist and center-seeking wars (Siegel, 2018a).

### **Contributions**

The research below provides a novel theoretical contribution explaining how rebels' goals and potential supporters' relative military capabilities influence the likelihood and impact of rebel support. Since rebel support is inherently militaristic, it is logical to place a core focus on military capabilities when analyzing the topic. Furthermore, I argue and provide evidence that center-seeking and separatist rebels fight different types of wars. States consider their own military capabilities and how a rebel group's goals will impact how it would use support, when deciding whether providing support would enable them to obtain meaningful value. I argue and demonstrate that the relationship between a potential supporter's military capabilities and the probability of rebel support is comprised of an inverted-U shape for separatists, while it is monotonically increasing for center-seekers. Thus, this dissertation casts doubt on previous findings that militarily weaker states are more likely to provide rebel support (Bapat, 2012; Maoz & San-Akca, 2012).

Building on the first paper, the second paper argues and shows that states consider both rebels' goals and their own military capabilities when deciding whether low or high intensity support represents the best route for them to achieve their objectives (Siegel, 2018b). By explaining when higher intensity support is most likely, this research illuminates situations where rebel sponsorship is likelier to have more dramatic and immediate consequences. Additionally, by showing when lower intensity support is most likely, this study helps us understand when states believe lower investments in rebels could still enable them to accomplish their sponsorship objectives.

Finally, in the third paper, I argue and find that rebel support is more likely to prolong civil war when it raises the rebels expected value for fighting the type of conflict they envision having to fight to accomplish their goals (Siegel, 2018a). As theorized, I find that only high intensity support from militarily strong states significantly raise center-seekers' expected payoffs from fighting. Hence, only these instances of rebel support prolong center-seeking wars. In contrast, lower intensity support from states that are not militarily stronger than separatists' home governments can raise these rebels' expected value for fighting, which significantly prolongs these wars. Therefore, the third paper demonstrates that rebels' goals, supporters' capabilities, and the intensity of support provided work together to determine how rebel support impacts civil war duration.

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## **Paper 1: How Rebels' Goals Impact Their Odds of Receiving State Support**

### **Abstract**

How do a rebel group's ultimate goals impact whether foreign states decide to support it? Virtually all rebels fight to either overthrow their government (center-seekers), or for regional separation. Center-seekers generally must inflict significant damage to achieve their goals. However, separatists can achieve their goals by fighting low-intensity wars. Therefore, potential state supporters expect separatist wars to be less intense. I argue that this differing expectation influences states' rebel support decisions. Developing this argument generates two hypotheses. First,

increasing a potential supporter's military capabilities, relative to those of a center-seeking group's home government, significantly increases the odds of rebel support. Second, a potential supporter is significantly more likely to support separatists when it is militarily competitive with their home government, rather than when it is weaker or stronger. Statistical analysis of all rebel groups active from 1975-2009 strongly supports these hypotheses. This article demonstrates that rebels' goals influence whether states believe rebel support represents a worthwhile route for them to accomplish their objectives.

## **Introduction**

Scholars argue that states experiencing separatist rebellions should avoid supporting foreign separatists, due to fears of having their own separatists supported as an act of retaliation. (Herbst, 1989; Jackson & Rosberg, 1982). However, Iranian support to Turkey's Kurdish separatists casts doubt on this argument. Iran has often struggled with its own Kurdish separatists. However, this did not stop it from supporting Turkey's Kurdish separatists during the 1980s (Hogbladh, Pettersson, & Themner, 2011). Why did Iran support Turkey's Kurdish separatists, despite the fact that Turkey could retaliate by supporting Iran's Kurdish separatists?

Separatists may be able to achieve their goals of greater autonomy by fighting long low-intensity wars. Thus, potential supporters understand that assisting separatists may only enable them to slowly inflict modest additional damage on their governments. While Iran supported Turkey's Kurdish separatists, Iran and Turkey

had similar military capabilities (Singer, 1987). Therefore, even if supporting Turkish separatists would only enable them to gradually inflict modest additional damage, such a policy could eventually provide Iran with a coercive military advantage over a previously competitive Turkish army. Consequently, Iran saw utility in supporting Turkish separatists, even though Turkey might retaliate by supporting Iranian separatists. However, when potential supporters are militarily stronger than separatists' home governments, they have little incentive to provide rebel support just to inflict modest additional damage on weaker governments. Finally, when potential supporters are weaker than separatists' home governments, providing rebel support would likely lead to costly retaliation before it could generate a meaningful coercive benefit. Thus, potential supporters should be more likely to support separatists when they are militarily competitive with their home government, rather when they are weaker or stronger.

In addition to separatist goals, many rebels instead seek to overthrow their central governments. I refer to these rebels as “center-seekers.” Virtually all rebel groups are either center-seekers or separatists.<sup>5</sup> These differing goals indicate that potential supporters should expect center-seeking and separatist wars to follow different trajectories (Buhaug, 2006). Therefore, this article answers the following

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<sup>5</sup> Groups almost never switch goals. Furthermore, though it appears some African rebels fight to control access to resources, rather than separate or overthrow their government, these groups generally do have center-seeking goals. For example, even the RUF in Sierra Leone, generally considered the prototype of a looting group, released a document claiming, ‘it is our duty to change the political system in the name of national liberation’ (Buhaug, 2006).



question: How do a rebel group's goals impact whether a potential supporter decides to support it?

In order to achieve their regime overthrow goals, center-seekers generally must inflict significant damage. Thus, by supporting center-seekers, states can enable them to perpetrate substantial additional violence. Consequently, I argue that states have two ultimate objectives in supporting center-seekers. First, they may seek to use support to facilitate rebel victories. Second, they may wish to provide support for a period and then promise to revoke it in exchange for concessions from the center-seekers' home government. Therefore, militarily stronger potential supporters should be more likely to support center-seekers, as strength improves a state's abilities to accomplish its ultimate rebel support objectives. Statistical analysis of all rebel groups active from 1975 through 2009 supports this proposition, as well as this article's other hypothesis.

This article makes three contributions to the literature. *First*, it identifies that a rebel group's goals play an important role in determining whether it receives state support. Essentially all rebels have distinct goals of either separating or overthrowing their governments. This research explains how these differing goals exert different influences on how potential supporters expect civil wars to unfold. It then demonstrates that states take these expectations into account when deciding whether to provide rebel support.

*Second*, this article includes both dyadic relationships between potential supporters and rebels' home governments, and rebel-specific characteristics (their goals), in a single line of argument to explain rebel support. Only one other study does this.<sup>6</sup> By evaluating potential supporters' relative military capabilities together with rebels' goals, this article demonstrates that center-seekers are most likely to be supported by states that are militarily stronger than their home governments. In contrast, separatists are most likely to be supported by states that are militarily competitive with their home governments. Therefore, this research finds that, in contrast to previous findings (Bapat, 2012; Maoz & San-Akca, 2012), states are unlikely to support the rebels of militarily stronger states.

*Third*, this is the first article examining rebel support determinants that uses retrospective sampling (King & Zeng, 2001) to identify potential supporters. Existing studies identify potential supporters by using either politically relevant dyads (San-Akca, 2016), or by only including states as potential supporters when they are rivals of a rebel group's home government (Bapat, 2012). These approaches to identifying potential supporters omit several instances of support in the empirical analyses. In contrast, retrospective sampling analyzes all cases of rebel support. Furthermore, it uses random selection when identifying potential supporters. Random selection minimizes the likelihood of biased results. Therefore, this study's empirical analysis represents an improvement over existing studies of rebel support determinants.

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<sup>6</sup> See (San-Akca, 2016).

This article proceeds as follows. *First*, I review the relevant literature on external support. *Second*, I discuss rebel strength as a potential confounding variable. *Third*, I present my theory on how rebels' goals impact the odds that they receive support. *Fourth*, I describe the strategy for testing my theory's predictions. *Fifth*, I present and discuss my results. *Sixth*, I provide concluding remarks.

### **Existing explanations for external support**

Rebel support explanations normally focus on either dynamics between potential supporters and rebels' home governments, or on characteristics of the rebel group. I begin by reviewing theories focusing on interstate dynamics.

Supporting rebels can increase the damage they inflict on their governments, and it is generally less risky for states to support rebels, than it is for them to directly fight the rebels' home government. Consequently, scholars argue that rivalries between potential supporters and rebels' home governments increase the odds of rebel support (Findley & Teo, 2006; Maoz & San-Akca, 2012; Salehyan, Gleditsch, & Cunningham, 2011). Relatedly, Maoz and San-Akca (2012) find that states that are dissatisfied with the outcome of the last conflict with a militarily stronger rival are likely to support the stronger rival's rebels. These potential supporters lack the conventional capabilities to alter the status quo via direct confrontation. While intuitive, this finding explains only a limited scope of external support. This result was generated from an analysis that counted only rival governments as potential

supporters. However, Maoz and San-Akca (2012) acknowledge that only 25.7% of their cases of support occurred within rivalries. Even this percentage is an overstatement, as rebel support directly caused several of the rivalries that they analyzed, rather than a pre-existing rivalry driving rebel support (Thompson & Dreyer, 2011).<sup>7</sup> Thus, while rivalry-focused arguments are useful in explaining support, theories that can be applied to a broader scope of support cases would provide additional value.

In addition to rivalries, researchers also argue that potential supporters' military capabilities influence the probability of support. However, no clear consensus emerges as to how capabilities affect support. Some scholars contend that support is likelier when potential supporters are militarily stronger than rebels' home governments (Salehyan, 2010; San-Akca, 2016). Yet, Saideman (2002), Bapat (2012), and Maoz and San-Akca (2012) all find that weaker potential supporters are likelier to provide rebel support. Surprisingly, there are no large-N studies that investigate whether moving towards interstate military parity increases the odds of support. Furthermore, existing research neglects to evaluate whether some military balances make support to center-seekers likely, while others might facilitate support to separatists.

Moving to rebel group characteristics, several scholars argue that states are more likely to support rebels sharing their ideational leanings. Authors posit that

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<sup>7</sup> For example, Sudanese support to a Ugandan rebel group, the LRA, triggered a rivalry that began in 1994 (Thompson & Dreyer, 2011).

multiple mechanisms drive ideational support. Salehyan (2010) contends that states are more likely to support co-ethnic foreign rebels. Co-ethnicity indicates shared language and culture, which enables easier communication. However, Byman and Kreps (2010) argue that shared ideation increases the odds of support because potential supporters believe that ideationally-aligned groups are more likely to advance their interests abroad. Saideman (1997) argues that states are more likely to support separatists with whom they share ethnic ties. Yet, he argues that such support is driven by state leaders' desires to improve their popularity with their domestic co-ethnics. Using a broader definition of ideational symmetry, San-Akca (2016) concludes that states are likelier to support rebels with whom they share religion, ethnicity, or political ideology. Like Saideman (1997), she argues that leaders support these groups to improve their domestic popularity. She also finds that ideational ties increase the odds of support even when the potential supporter is not an adversary of the rebels' home government. However, her study is the only one that incorporates both rebel characteristics and interstate dynamics into a single hypothesis regarding rebel support determinants. Therefore, additional work is warranted to determine how other rebel characteristics interact with different interstate dynamics to influence rebel support.

In addition to research regarding ethnic ties, another strand of literature argues that certain factors should deter states from supporting separatists specifically. Zartmann (1966) contends that states may avoid supporting separatists because successful separations could call many borders into question. Similarly, Heraclides

(1991) and Zacher (2001) maintain that the norm against violating another country's territorial integrity can prevent states from supporting foreign separatists. While this norm may deter some support, states understand that many separatists have minimal prospects of successfully separating. Therefore, they can support separatists without necessarily expecting that support would lead to a redrawing of borders. Zacher (2001) also contends that the territorial integrity norm strengthens over time. However, from 2001 through 2009, there were 51 annual instances of states supporting foreign separatists (Hogbladh, Pettersson, & Themner, 2011). This suggests that the territorial integrity norm does not overwhelmingly deter states from supporting separatists.

Despite the literature regarding support to separatists, there is no research that directly addresses support to center-seekers. This is surprising, given that from 1975-2009, 71% of the annual instances of state support to rebels were provided to center-seekers (Hogbladh, Pettersson, & Themner, 2011; Melander, Pettersson, & Themner, 2016). Therefore, this article explains why certain circumstances increase the probability of center-seekers receiving support.

### **Addressing rebel strength as a possible confounder**

Before proceeding to this article's theory, I address the potential criticism that rebel support and rebels' goals could both be endogenous to rebels' military strength. Potential supporters could be more likely to support stronger groups, as they can

inflict greater damage. Furthermore, it is generally more difficult for rebels to militarily overthrow a government, than it is for them to achieve autonomy or separation. Consequently, center-seeking demands may be more likely to come from militarily stronger rebels.

However, there are clear examples of militarily weak center-seekers and militarily competent separatists. For example, the center-seeking rebel group, MPS, was able to overthrow the government of Chad in 1990. The group had only 3,750 troops (Cunningham, Gleditsch, & Salehyan, 2013). Similarly, the JEM in Sudan issued center-seeking demands in 2003, despite having only 6,000 soldiers.

Additional examples of militarily weak center-seekers include the ABSDF in Burma, and Devrimci Sol and MKP in Turkey. In addition to militarily weak center-seekers, sometimes militarily competent rebels have separatist goals. For instance, the MFDC in Senegal, and the LTTE in Sri Lanka, both represent militarily competent separatist groups (Cunningham, Gleditsch, & Salehyan, 2013).

To assess correlation between rebel strength and center-seeking aims, I regressed (logistic regression) rebels' aims on rebel (Cunningham, Gleditsch, & Salehyan, 2013) and government (Singer, 1987) troop numbers. Increasing rebel troop strength did not have a statistically significant impact on the odds of center-seeking aims. Nevertheless, I include a control variable for rebel strength in the empirical analysis. Therefore, there is minimal risk that omitted variable bias

emanating from rebel military strength would cause me to find spurious support for my theory.

## **Theory**

The theory below explains why certain factors should increase the odds that a state supports a rebel group in any given year. For this article's purposes, support includes weapons, funding, materiel, training, intelligence materials, access to territory for military bases, access to military/intelligence infrastructure, combat troops to fight with rebels, and miscellaneous support (i.e. running a rebel radio station) (Hogbladh, Pettersson, & Themner, 2011).

My core argument is that states consider how they expect civil wars to unfold, when deciding whether rebel support would enable them to achieve their sponsorship objectives. A rebel group's ultimate goals have a significant influence on how potential supporters expect the rebels' war to play out. Therefore, I argue that rebels' goals play a meaningful role in explaining external support.



## Center-seekers and external support

To achieve their goals of regime removal, center-seekers normally must overrun government defenses and control the capital, and/or other strategically<sup>8</sup> important areas. Consequently, center-seekers should frequently concentrate large numbers of forces in confined densely populated areas, to attempt to gain control of these regions (Butler & Gates, 2009). Evidence strongly suggests that center-seekers are more likely than separatists to fight in this manner. From 1989-2015, center-seeking conflicts had median annual battle deaths of 323, while separatist conflicts had just 95 (Melander, Pettersson, & Themner, 2016). Buhaug (2006) finds that center-seeking wars occur in geographically smaller countries. Geographically smaller countries usually have smaller populations. Therefore, center-seekers appear likelier to concentrate their forces and to fight more intense battles in areas with greater population density.

Potential supporters understand that concentrating forces can enable rebels to inflict significant damage. However, concentration also makes it easier for governments to rapidly eliminate large numbers of rebel forces, potentially crippling rebellions. Thus, potential supporters recognize that if center-seekers can avoid being eliminated, support could help them inflict even greater amounts of damage, which might eventually enable them to threaten their government's existence. Yet, if states cannot provide sufficient support to prevent center-seekers from rapidly suffering

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<sup>8</sup> Strategic can refer to economic, political, or geographic importance. Geographic importance relates to rebels' enhancing their prospects for militarily advancing towards important areas.

significant losses, then support would yield minimal value. If support can prevent quick center-seeker defeats, then the rebels would likely use subsequent assistance to attempt to significantly damage important regions. This indicates that at least some potential supporters should have the ultimate support objective of enabling center-seeker victories. However, states could also have the objective of using support as a “bargaining chip,” by providing it for a period, and then promising to revoke it in exchange for concessions from the center-seekers’ home government.<sup>9</sup> Under some circumstances, governments should willingly make these concessions, as doing so could end their center-seekers’ support, which reduces their odds of being overthrown. Since center-seeking wars are generally more violent, they normally represent more existential security threats than separatist conflicts. Therefore, governments should be more willing to provide concessions to remove their rebels’ support when the insurgents have center-seeking goals. Evidence supports this argument. From 1945-2001, 68% of the successful uses of support as a bargaining chip occurred via support to center-seekers (Melander, Pettersson, & Themner, 2016; Schultz, 2010).

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<sup>9</sup> The other logical support objective related to damaging other governments is to modestly drain these governments’ resources for long periods. Magnitudes of support intended only to enable center-seekers to slowly bleed their governments are generally insufficient to enable them to avoid suffering significant losses in the intense conventional battles they are likely to fight. Therefore, states considering supporting center-seekers normally understand that modest amounts of support would likely be insufficient to drain opposing governments’ resources for long periods. The section on separatists addresses support intended to modestly drain governments’ resources for long periods.

To summarize, potential supporters understand that center-seekers would likely use support to attempt to meaningfully pressure their home government. Therefore, states' ultimate support objectives should generally be to enable center-seeker victories, or to use support as a bargaining chip. Potential supporters' military capabilities shape whether they believe supporting center-seekers would enable them to achieve these objectives.

States expect better odds of achieving the above-mentioned objectives as their military capabilities increase, relative to those of a center-seeking group's home government. Stronger states anticipate greater chances of successfully using support as a bargaining chip for two reasons. First, center-seekers' home governments should be more desperate to end support from stronger states, as more powerful states can generally provide greater magnitudes of support. Second, governments are normally more likely to concede to powerful states, since these states can hurt them more if they refuse their demands.

In addition to having better odds of using support as a bargaining chip, stronger states can more easily enable center-seeker victories. Militarily powerful states can normally supply greater quantities of weapons to center-seekers. Additionally, they can generally provide center-seekers with better training for large-scale conventional battles. Therefore, stronger states expect better chances that they could provide the support required to facilitate center-seeker victories.

However, some potential supporters will expect that to enable center-seeker victories, they might have to send their own troops to fight alongside the rebels. Militarily stronger states usually have more soldiers, and their troops are generally better equipped and trained. Consequently, as potential supporters' relative military capabilities increase, they have greater confidence that providing troops could eventually enable center-seeker victories.

In order to meaningfully improve center-seekers' battle performance, states will usually expect that they would have to provide considerable magnitudes of support. When potential supporters are militarily weaker than center-seekers' home governments, they generally cannot provide these magnitudes of support, while maintaining sufficient resources to defend against retaliation and other security threats. Thus, if potential supporters are militarily weak, they normally cannot appreciably improve center-seekers' abilities to perform well in conventional battles by providing external support. Finally, weaker states should anticipate that supporting center-seekers would trigger costly retaliation before it could meaningfully damage governments with stronger militaries. Therefore, the analysis above leads to the following hypothesis.

**H1:** Increasing a potential supporter's military capabilities, relative to those of a center-seeking group's home government, significantly increases the odds of rebel support.

## Separatists and external support

Unlike center-seekers, separatists can achieve their goals without inflicting significant damage on important areas, such as the capital or other large cities. For example, separatists can sometimes convince their government that granting autonomy would be better than continuing a low-intensity guerrilla conflict in the periphery where the government is unlikely to permanently prevail. Hence, separatists often hesitate to concentrate their forces and fight intense conventional battles. Avoiding force concentration makes it tougher for governments to quickly eliminate large numbers of separatists, which enables the rebels to continue their fights for long periods.<sup>10</sup> Thus, potential supporters normally expect separatists to conduct prolonged conflicts involving hit-and-run tactics, in order to slowly wear their governments down. Consequently, states should anticipate that supporting separatists would rarely enable rebel victories.<sup>11</sup> Furthermore, because supporting separatists often only enables them to inflict modest additional damage, many states will expect that it would be difficult to use support to separatists as a bargaining chip.

In addition to separatists' incentives to conduct low-level guerrilla insurgencies, the location of fighting in separatist conflicts also impacts how potential supporters expect these wars to unfold. In turn, these expectations influence whether potential supporters decide to provide separatists with support.

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<sup>10</sup> Evidence confirms this logic. Balch-Lindsay and Enterline (2000) find that separatist goals make civil conflicts last significantly longer.

<sup>11</sup> Evidence verifies that separatists rarely win. From 1975-2009, separatists won only 2% of their wars, while center-seekers won 14% (Kreutz, 2010).

As the distance from a country's capital city increases, and as the distance from international borders decreases, governments are generally less effective at delivering services. Furthermore, governments often discriminate against ethnic groups residing in peripheral areas. Discrimination and a lack of service provision incentivize individuals to form armed separatist groups. Meanwhile, operating in the periphery reduces governments' capabilities to monitor these groups, providing them with opportunities to organize guerrilla violence. A study by Buhaug and Rod (2006) confirms that separatist wars are more likely to occur far from the capital, and near international boundaries. Operating in the periphery means separatists cannot easily mount attacks on vital regions in a manner that would quickly pressure their governments to consider granting them autonomy. Thus, separatists' best bets are normally to conduct long low-intensity guerrilla wars in the periphery, with the hopes that they can eventually convince their governments to compromise.<sup>12</sup> For example, Philippine separatists in Mindanao began armed conflict in 1970 (Melander, Pettersson, & Themner, 2016), yet the government only agreed to partial autonomy in 1989 (Uppsala Universitet (Philippines), 2018).<sup>13</sup> This suggests that potential supporters should expect separatist wars to be lengthy low intensity conflicts, with violence occurring in the periphery.

In addition to the above-mentioned characteristics of separatist wars, these conflicts also frequently occur in mountainous areas. Tollefsen and Buhaug (2015)

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<sup>12</sup> Balch-Lindsay, Enterline, and Joyce (2008) find that separatist wars are more likely to end in negotiated settlements than center-seeking wars.

<sup>13</sup> Annual battle deaths were over 1,000 in only two of the 19 years from 1970-1989 (Melander, Pettersson, & Themner, 2016).

compiled data on mountain coverage and civil war in Africa from 1989 to 2010. They found that increasing mountain coverage significantly increases the odds of civil wars. Furthermore, they found that for a one-unit increase in mountain coverage, the odds of a separatist conflict occurring are 250% greater than the odds of a center-seeking conflict occurring.

Mountains provide separatists with effective places to hide after conducting hit-and-run attacks. They also reduce governments' technological advantages, as tanks are less effective in mountains (Tollefsen & Buhaug, 2015). Consequently, mountains enable separatists to tilt the fighting towards guerrilla-style combat, while more conventional fighting in flatter terrain would favor the government. Potential supporters can observe that separatist conflicts frequently occur in mountainous regions. Thus, while supporting separatists may only enable them to inflict modest additional damage, it would force their governments to transport additional soldiers through mountainous terrain to combat separatists strengthened by external aid. Long trips through mountainous territory will drain government soldiers' fighting capabilities, and add to the resource burden that governments must endure to combat their separatists. Consequently, when separatists are supported, their governments have fewer soldiers and weapons to use to defend themselves against possible attacks by their separatists' supporters. Therefore, I argue that the main benefit of supporting separatists is that it forces their governments to transport additional resources to rough faraway regions. Over time, this can meaningfully degrade the military capabilities of the separatists' home government. A potential supporter's own military

capabilities should influence how much value it places on this benefit that can be realized by supporting separatists.

Potential supporters that are militarily competitive with separatists' home governments should obtain the most utility from supporting separatists. These states have motivation to provide support for long enough to gain a coercive military advantage over a separatist group's home government that initially had similar military capabilities. Gaining an advantage means a supporter would worry less that the separatist group's home government could deal them significant damage in interstate combat. Furthermore, military competitiveness often indicates tensions over regional influence (i.e. Iran and Iraq under Saddam Hussein). Therefore, by supporting a militarily competitive government's separatists, the supporter can eventually improve its regional influence over the rebels' home government. Additionally, since support forces governments to divert military resources to separatist areas, it makes these governments' other regions more vulnerable to attacks from militarily competitive supporters. Finally, potential supporters should expect better odds of using coercive threats to obtain concessions from militarily competitive governments, after they have weakened these governments by supporting their separatists for long periods.<sup>14</sup>

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<sup>14</sup> States are significantly more likely to support separatists in nearby countries. Over 84% of support to separatists (from 1975-2009) occurred when supporters' capitals were less than 1200 miles from the capital of the separatists' home government (Gleditsch & Ward, 2001; Hogbladh, Pettersson, & Themner, 2011). Therefore, it is reasonable to argue that states support separatists to gain regional influence. Furthermore, the proximity of separatists' supporters is consistent with the logic that support is often intended: 1) to reduce the separatist home government's ability to



However, when potential supporters are militarily weak, supporting separatists would rarely enable these states to use threats to obtain concessions. Weak states will also have difficulty improving their regional leverage by supporting stronger governments' separatists. Moreover, supporting stronger governments' separatists would likely lead to costly retaliation before it could level the interstate military playing field.

Finally, militarily stronger potential supporters should also generally hesitate to use their resources to support separatists, as there is minimal value in modestly and slowly damaging governments that are already significantly weaker. Stronger potential supporters can retain their coercive advantages over a weaker government without expending resources supporting the weaker government's separatists. Some strong states may perceive value in attempting to use long-term support to separatists as a bargaining chip. However, recall that supporting separatists often only enables them to slowly inflict modest additional damage. Hence, some strong potential supporters may decide that the financial costs of using support to separatists as a bargaining chip would exceed the benefits, which would probably take significant time to materialize, and which may never actually be realized. Therefore, the analysis above leads to the following hypothesis.

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militarily challenge the supporter, and/or 2) to improve the supporter's ability to militarily threaten the separatists' home government.

**H2:** A potential supporter is significantly more likely to support separatists when it is militarily competitive with their home government, rather when it is weaker or stronger.

Table I below summarizes this article’s main predictions.

Table I. Predictions on the odds of rebel support

	Rebels' goals	
	<i>Center-seekers</i>	<i>Separatists</i>
Militarily weaker potential supporter	lowest	low
Militarily competitive potential supporter	medium	highest
Militarily stronger potential supporter	highest	low

## Research design

### Unit of analysis

To test my hypotheses, I employ the rebel group-rebel home government-potential supporter-year as the unit of analysis. The analysis period is 1975-2009. I use the Non-State Actor Dataset to identify rebels and their home governments (Cunningham, Gleditsch, and Salehyan 2013).<sup>15</sup> The existing rebel support literature uses a variety of methods for identifying which states count as potential supporters for foreign rebel groups. Some studies include all states in the international system as

<sup>15</sup> If rebels cease fighting for over two years and subsequently restart, I code a new conflict.

potential supporters (Maoz & San-Akca, 2012). Others only count states as potential supporters if they form politically relevant dyads with a rebel group's home government (San-Akca, 2016). Finally, some scholars only include states as potential supporters if they are rivals with a rebel group's home government (Bapat, 2012). Each of these approaches has drawbacks.

First, utilizing either rivalries or politically relevant dyads to identify potential supporters excludes cases of rebel support from the analysis. For example, during the 1970s and 1980s, Cuba supported rebel groups in Africa and the Middle East (Hogbladh, Pettersson, & Themner, 2011). However, Cuba was not a rival of these rebel groups' home governments (Thompson & Dreyer, 2011). Furthermore, Cuba did not form politically relevant dyads with these governments (San-Akca, 2016). Consequently, identifying potential supporters based on either rivalries or politically relevant dyads would exclude these instances of support from the analysis.

Second, including all states in the international system as potential supporters generates a large number of potential supporters with virtually zero probability of supporting certain rebel groups. For example, it seems unlikely that Guatemala would ever support Indian separatists. Due to the drawbacks of the existing methods of identifying potential supporters, I use retrospective sampling to identify them (King & Zeng, 2001).

This procedure begins 1) by including as potential supporters all states that actually supported each rebel group. For example, Eritrea was the only state that supported the Sudanese rebel group JEM in 2003. Therefore, at this point, Eritrea is the only state that counts as a potential supporter for JEM. 2) *Next*, I temporarily include as potential supporters; all states in the international system (Bennett & Stam, 2000) that did not support a given rebel group. This means that Ghana, India, Egypt, etc. are all temporarily counted as potential supporters for JEM. 3) *Finally*, I take all of the states that are temporarily included as potential supporters and I randomly select 50% of these cases to exclude from the final analysis.<sup>16</sup> Therefore, the final sample includes the following states as potential supporters: 1) all of the states that actually provided support, and 2) 50% of the states that did not actually provide support. This approach is ideal because a) it includes all cases of support, and b) it provides randomness in identifying potential supporters. Randomness ensures that some states that have incentive to damage rebels' home governments get included as potential supporters, and that some states that appear to lack this incentive also get included. Including states as potential supporters even though they do not appear likely to provide support is valid because these states do sometimes provide support (Hogbladh, Pettersson, & Themner, 2011).

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<sup>16</sup> Other sample sizes yield similar results.

### Dependent variable

*Explicit support* - This variable takes the value “1” if a potential supporter provided any explicit support to the given rebel group in the given year, “0” otherwise (Hogbladh, Pettersson, & Themner, 2011). Support includes weapons, funding, materiel, training, intelligence materials, access to territory for military bases, access to military/intelligence infrastructure, combat troops to fight with rebels, and miscellaneous support (i.e. running a rebel radio station). When support is alleged, but cannot be explicitly confirmed, I set these observations to missing. Alleged support is rare, accounting for less than 8% of the annual instances of support that occurred from 1975 through 2009 (Hogbladh, Pettersson, & Themner, 2011). Setting alleged support to missing is consistent with current practice (Karlen, 2017).

### Independent variables

*Rebels’ goals* – The data for a rebel group’s goals come from the UCDP/PRIO Armed Conflict Dataset (ACD). This dataset provides annual information on all armed conflicts that occurred from 1945 through 2015. An armed conflict is defined as: “a contested incompatibility that concerns government or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a calendar year (Melander, Pettersson, & Themner, 2016).” Incompatibilities over government include situations where rebels seek to replace the central government, change its composition, or alter the existing political system. Territorial incompatibilities include instances where rebels seek

autonomy or secession (Melander, Pettersson, & Themner, 2016). The ACD definition of a territorial incompatibility maps directly onto the concept of a separatist rebel group. Furthermore, the ACD specification of a governmental incompatibility maps directly onto my conceptualization of a center-seeking rebel group. Therefore, I use the ACD to code a binary variable for a rebel group's goals. The *Rebels' goals* variable is coded "0" if the ACD identifies rebels as having a territorial (separatist) incompatibility, or it is coded "1" if the ACD specifies that rebels have a governmental (center-seeking) incompatibility.<sup>17</sup>

*Potential supporter's relative military capabilities (lag)* – I use military personnel and expenditures to measure military capabilities (Singer, 1987). Personnel and expenditure totals represent the most reliable readily available indicators of a state's overall military capabilities. As newly instituted military personnel generally undergo training before they are combat ready, I use the previous year's military

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<sup>17</sup> The ACD code an entire conflict as being fought over government or territory. However, rebel movements sometimes change their ultimate goals. For example, the SPLA began fighting to change the government of Sudan in 1984. However, the SPLA eventually reached an agreement with the Sudanese government that resulted in the creation of the independent state of South Sudan in 2011. The SPLA's original leader, John Garang, maintained a center-seeking demand for the group up until his death in 2005 (de Vries & Schomerus, 2017). After Garang's death, the SPLA is better characterized as having a territorial incompatibility. However, the ACD code the SPLA as having a governmental incompatibility for its entire conflict (Melander, Pettersson, & Themner, 2016). Yet, the SPLA's civil war was not active according to the ACD criteria between 2004 and 2009. Therefore, there is no need to recode the SPLA's incompatibility for the empirical analysis in this article. The only other significant example of a potentially questionable coding by the ACD is the case of the TPLF in Ethiopia. For example, Smith (1984) argues that the TPLF had a governmental incompatibility, while Berhe (2004) asserts that the TPLF was a separatist group. The ACD code TPLF as having a governmental incompatibility (Melander, Pettersson, & Themner, 2016). Coding the TPLF as a separatist group does not meaningfully alter any of this dissertation's findings/conclusions.

personnel number to measure military capabilities. Additionally, military expenditures can take significant time to actually increase capabilities. Furthermore, military spending can fluctuate significantly from year-to-year. Therefore, I use the average of the three most recent years' expenditures to measure capabilities.<sup>18</sup> In finalizing the measure for military capabilities, I equally weight personnel and expenditures. Consequently, after incorporating the lags and averages described above, the formula below captures a potential supporter's relative military capabilities:

$$\left( \frac{\text{Potential supporter military personnel}}{\text{Rebel home government military personnel} + \text{Potential supporter military personnel}} \right) / 2 + \left( \frac{\text{Potential supporter military expenditures}}{\text{Rebel home government military expenditures} + \text{Potential supporter military expenditures}} \right) / 2$$

This variable spans from 0 to 0.99.<sup>19</sup> A value of 0.5 indicates equal capabilities. I expect the probability of support to separatists to have an inverted-U shaped relationship as potential supporters relative military capabilities increase from 0 towards 0.99. Hence, I include both a linear and squared term for this variable.

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<sup>18</sup> Including a three-year lagged average for military expenditures introduces a potentially harmful dependency amongst consecutive annual observations. To evaluate whether this dependency inappropriately drives my overall results, the appendix includes a military balance measurement that focuses solely on the number of military personnel. The results focusing solely on the military personnel numbers are essentially the same as those incorporating the three-year lagged averages for expenditures (see appendix).

<sup>19</sup> Skewness for this variable is 0.62 and kurtosis is 1.94. Therefore, logging is unnecessary.

Squaring enables me to capture a parabolic relationship between a potential supporter's relative military capabilities and the probability of support for separatists. As this relationship is expected for separatists, I multiply both the linear and squared terms of this capabilities variable by the rebels' goals variable.

The ratio above represents the most common and immediate measure of how a potential supporter would evaluate its military capabilities, relative to those of a rebel group's home government. However, in some instances, a government other than the potential supporter may contribute troops to fight alongside either the rebel group's home government or the rebel group itself.<sup>20</sup> In these situations, potential supporters should consider how these third party contributions influence the military balance between the potential supporter and military forces supporting the rebels vs. the rebels' home government and military forces supporting that government. Therefore, to ensure that my overall results are robust to this consideration, I operationalize the military balance using the following ratio in the appendix that follows the main article:

$$\frac{((\text{Potential supporter military personnel} + \text{Third party military personnel supporting the rebels})}{(\text{Rebel home government military personnel} + \text{Potential supporter military$$

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<sup>20</sup> Troop support to rebels in either separatist or center-seeking wars occurs less than 1% of the time for each of these types of civil conflicts. Furthermore, troop support to governments experiencing separatist conflicts occurs only 2% of the time. However, troop support to governments experiencing center-seeking wars is more common, occurring in 21% of these types of conflicts (Hogbladh, Pettersson, & Themner, 2011; Melander, Pettersson, & Themner, 2016)



personnel + Third party military personnel supporting the rebels' home government))  
/ 2)

In order to identify the number of troops that third parties contributed, I used secondary sources, such as newspapers, journal articles, and books to compile these data. I focus the ratio above solely on military personnel numbers because it was relatively straightforward to identify how many third party military personnel are supporting either the government or rebels in a civil war. In contrast, it was not feasible to accurately identify amounts of third party military expenditures that are directly related to third party interventions on annual bases. The appendix to this article demonstrates that incorporating third party military personnel into the balance of relative military capabilities has no material impact on this article's overall conclusions.

### Control variables

Following the advice of Achen (2005), I only include control variables that are plausible confounders between my key independent variables and rebel support.

*Rebels' relative military capabilities (log)* – As it is harder for rebels to overthrow their government, than it is for them to achieve autonomy over a limited portion of a country's territory, center-seeking goals may be more likely to come from militarily stronger rebels. Potential supporters may also prefer supporting

stronger rebels. Thus, it is necessary to include rebel strength as a control variable, as it could be correlated with both rebel support (the dependent variable) and center-seeking demands (the key independent variable). Therefore, I include the following control variable: *Rebels' relative military capabilities (log)* = Number of Rebel Soldiers / (Number of Rebel Soldiers + Number of Rebel Home Government Soldiers).<sup>21</sup> The data for numbers of rebel soldiers come from Cunningham, Gleditsch, and Salehyan (2013), and the data for numbers of government soldiers come from Singer (1987). To reduce the influence of outliers where rebel groups are extremely strong, I take the natural log of this variable.

*Rebel territorial control* – Rebel control of territory could be correlated with both separatist goals (the key independent variable) and a higher likelihood of receiving state support (the dependent variable). It is likely that rebels controlling territory would demand self-governance, as territorial control indicates rebels have some capability for self-rule. Furthermore, potential supporters may be more likely to support rebels when they exercise territorial control, as control indicates that rebels are unlikely to be quickly defeated. Consequently, the support would not be a wasted investment, as the rebels could utilize it to inflict additional damage on their

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<sup>21</sup> Model 1 below has missing data on rebel troops for 11.2% of the model's observations. However, the data for rebel strength list categorical measures for these groups' military strength, relative to the governments they fight. The categories are: rebels much weaker, weaker, at parity, stronger, and much stronger (Cunningham, Gleditsch, & Salehyan, 2013). Therefore, to address the issue of missing data, I computed the median value of the rebel to government troop ratio for each of these categories. I then assigned the median ratio value that corresponded to the categorical strength measure (i.e. weaker) for each observation that lacked a rebel troop number. Omitting the observations that lack rebel troop numbers yields essentially the same results (available from author).

government. Therefore, this variable takes the value “1” if the rebels control internal territory during a given year and “0” if they do not (Cunningham, Gleditsch, & Salehyan, 2013).

*Third party rebel support* – If a potential supporter observes that a rebel group receives support from at least one other state, this could encourage it to support the group as well. Such a potential supporter should expect better odds that providing support to a group receiving assistance from another state could facilitate a rebel victory. Recall that potential supporters expect better odds that rebel support could facilitate insurgent victories if the rebels have center-seeking goals. Thus, third party rebel support could be correlated with center-seeking wars. Hence, third party rebel support could be correlated with both the dependent variable (the potential supporter providing rebel support), as well as a key independent variable (center-seeking rebel goals). Therefore, I include a variable that is coded “1” if a rebel group receives support from any state other than the given potential supporter in the given year (Hogbladh, Pettersson, & Themner, 2011). Otherwise, I code this variable “0.”

*Third party government support* – If a potential supporter observes that a rebel group’s home government receives support from another state, this could encourage the potential supporter to sponsor the rebels to counteract the government support. Furthermore, because center-seeking wars are more threatening to a government’s existence, third party support to the government could be correlated with center-seeking rebellions. Hence, third party government support could be correlated with

both the dependent variable (the potential supporter providing rebel support), as well as a key independent variable (center-seeking rebel goals). Therefore, I include a variable that is coded “1” if a rebel group’s home government receives support from any state other than the given potential supporter in the given year (Hogbladh, Pettersson, & Themner, 2011). Otherwise, I code this variable “0.”

*Time*, *Time*<sup>2</sup>, *Time*<sup>3</sup> – These variables count the number of years since the given potential supporter explicitly supported the given rebel group. They are included to control for temporal dependence, as suggested by Carter and Signorino (2010).

### Method

I utilize binary logistic regression to assess whether my hypotheses receive statistical support. As discussed above, I use retrospective sampling to identify the states that count as potential supporters for a given rebel group in a given year. I utilize prior correction to correct the constant term in the retrospective sample, as advised by King and Zeng (2001). Rebel support is likely correlated within rebel group-potential supporter dyads. Therefore, I cluster the standard errors on the rebel group-potential supporter dyad.

## Empirical results

Table II below displays the distribution of the dependent variable.

Table II. Distribution of rebel support by rebel group-supporter-year, 1975-2009

	Model 1	
	<i>Frequency</i>	<i>Percentage</i>
Explicit support	1,420	0.9%
No explicit support	161,343	99.1%
<i>Total</i>	<i>162,763</i>	<i>100%</i>

Table III below begins the statistical analysis with a binary logistic regression model.<sup>22</sup> Since H1 and H2 are interactive hypotheses, the interaction term coefficients and p-values cannot be directly used to test my hypotheses (Brambor, Clark, & Golder, 2006). Therefore, I use the figures below Table III to determine whether my hypotheses are supported.

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<sup>22</sup> The highest variance inflation factor (excluding the temporal dependence controls and the linear and squared military capabilities variables, which are both correlated by definition) is 1.23. Variance inflation factors below 4 indicate that multicollinearity does not present problems (Gujarati, Porter, & Gunasekar, 2012).

Table III. Regression estimates of explicit support, 1975-2009

	<i>Model 1</i>
	<i>Explicit support</i>
Rebels' goals	0.34 (0.36)
Potential supporter's relative military capabilities (lag)	11.24*** (1.50)
Rebels' goals * Potential supporter's relative military capabilities (lag)	-7.84*** (1.82)
Potential supporter's relative military capabilities (lag) <sup>2</sup>	-10.31*** (1.75)
Rebels' goals * Potential supporter's relative military capabilities (lag) <sup>2</sup>	9.70*** (1.99)
Rebels' relative military capabilities (log)	0.01 (0.04)
Rebel territorial control	0.38*** (0.14)
Third party government support	0.20 (0.15)
Third party rebel support	2.84*** (0.13)
Constant	-5.42*** (0.39)
Observations	162,763

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-potential supporter dyad. Standard errors in parentheses. Temporal dependence controls omitted for presentational purposes.

Figures 1 and 2 below assess whether my hypotheses are supported. These figures plot a potential supporter's relative military capabilities on the X-axis and the

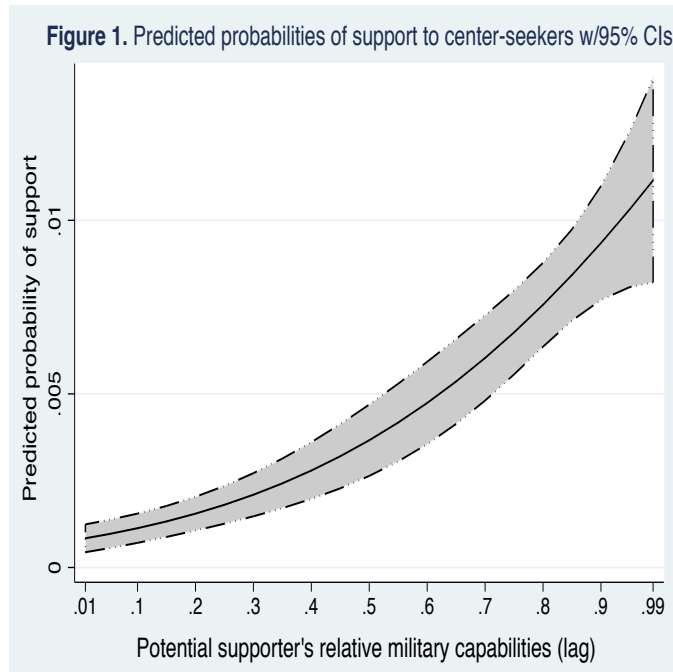
predicted probability of explicit support on the Y-axis.<sup>23</sup> In both figures, the solid black lines represent the predicted probabilities of explicit support and the gray shaded areas represent 95% confidence intervals (two-tailed).

### Assessing support for H1

Figure 1 below is based off Model 1 and it is included to assess support for H1. The figure provides strong support for H1. Increasing a potential supporter's capabilities from 0.3 to 0.8 increases the probability of support to center-seekers from 0.002 to 0.008. This represents a 300% increase in the probability of support ( $((0.008 - 0.002) / 0.002) = 3$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant. Therefore, increasing a potential supporter's military capabilities, relative to those of a center-seeking group's home government, significantly increases the odds of rebel support. This is consistent with H1's prediction.

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<sup>23</sup> Predicted probabilities are calculated by holding covariates at their observed values, as advised by Hanmer and Kalkan (2013). Confidence intervals are calculated via the delta method.



In the theoretical section above, I argued that military strength improves a potential supporter's odds of using support to center-seekers as a bargaining chip, and of using support to enable center-seeker victories. Expanding on this logic led to H1. While Figure 1 above demonstrates a statistically significant correlation in support of H1, it does not reveal whether stronger states actually have greater odds of enabling center-seeker victories or using support to center-seekers as a bargaining chip.

To determine whether militarily stronger potential supporters have better success at using support to center-seekers as a bargaining chip, I analyzed data compiled by Schultz (2010). Schultz's data identify all instances between 1946 and 2001 where a supporter obtained concessions from a rebel group's home government by agreeing to end support. For instances where supporters successfully used support to center-seekers as a bargaining chip, their median value of relative military



capabilities was 0.85 (Schultz, 2010; Singer, 1987). This supports my argument that militarily stronger states have better odds of using support to center-seekers as a bargaining chip.

American support to Cambodian rebels reveals how militarily powerful states have successfully used support to center-seekers as a bargaining chip. (Hogbladh, Pettersson, & Themner, 2011). The United States began supporting Cambodian center-seeking groups (KPNLF and FUNCINPEC) in 1983. In 1991, the Cambodian government agreed to share power with the rebels in exchange for the US terminating its support to the Cambodian center-seekers (Uppsala Universitet (Cambodia), 2018). The United States was clearly militarily stronger than Cambodia throughout the 1980s and early 1990s. Therefore, this case supports the argument that strong potential supporters can expect reasonably decent odds of using support to center-seekers as a bargaining chip.

From 1975-2009, 29 center-seeking groups defeated their governments militarily (Kreutz, 2010). Fifteen of these groups (52%) received explicit state support in either the year they achieved victory, or the year before (Hogbladh, Pettersson, & Themner, 2011).<sup>24</sup> For instances where support enabled center-seeker victories, the median value of a supporter's relative military capabilities was 0.88 (Kreutz, 2010; Singer, 1987). This supports the argument that militarily stronger states have better odds of using rebel support to enable center-seeker victories.

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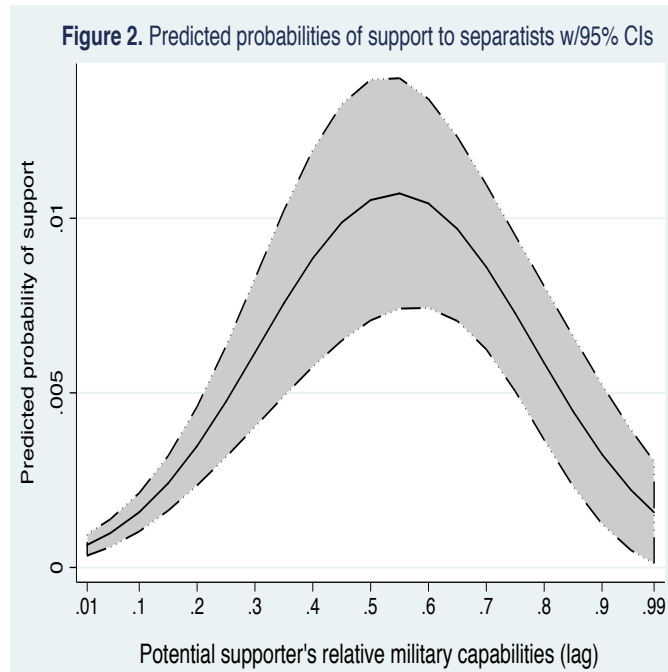
<sup>24</sup> Only two groups received support in the year before they achieved victory, but did not receive support in the year of victory.

Ivorian support to the NPFL, a Liberian rebel group, suggests that militarily strength can encourage states to support center-seekers in order to potentially facilitate rebel victories. In 1989, Ivory Coast began supporting the NPFL (Hogbladh, Pettersson, & Themner, 2011). At this time, Ivory Coast was militarily stronger than Liberia with 66% of the capabilities in the Ivory Coast-Liberia dyad (Singer, 1987). Ivorian support was aimed at enabling the NPFL to overthrow an unstable and economically weak Liberian government. The NPFL's initial attacks emanated entirely from Ivorian territory. With continued Ivorian support, the NPFL was able to acquire control of 90% of Liberia by June of 1990 (Sesay, 1996). This case provides evidence that militarily powerful states assist center-seekers with the objective of using support to facilitate rebel victories. Stronger potential supporters anticipate better odds that their military power could enable them to overthrow weaker governments by providing their center-seekers with support.

### Assessing support for H2

Figure 2 below is based off Model 1 and it is included to assess support for H2. Figure 2 provides strong support for H2. Increasing a potential supporter's capabilities from 0.15 to 0.50 increases the probability of support to separatists from 0.002 to 0.011. This represents a statistically significant 450% increase in the probability of support ( $((0.011 - 0.002) / 0.002) = 4.5$ ). Decreasing a potential supporter's capabilities from 0.85 to 0.50 increases the probability of support from 0.004 to 0.011. This represents a statistically significant 175% increase in the

probability of support  $((0.011 - 0.004) / 0.004) = 1.75$ ). Therefore, a potential supporter is significantly more likely to support separatists when it is militarily competitive with their home government, rather when it is weaker or stronger. This is consistent with H2's prediction.



In the theoretical section above, I contended that when potential supporters are militarily competitive with separatists' home governments, they have incentive to support the separatists to improve their coercive power over a militarily equal government. I also argued that when potential supporters are militarily weaker than a separatist group's home government, they are less likely to provide support, due to fears of military retaliation. While Figure 2 shows strong correlation between military competitiveness and support for separatists, the examples below provide additional support for the causal logic behind H2.

In 1984, the PKK, a rebel group demanding an autonomous region for ethnic Kurds in Turkey, began attacking the Turkish state (Cunningham, Gleditsch, & Salehyan, 2013). Syria supported the PKK from 1984 until 1998 (Hogbladh, Pettersson, & Themner, 2011). In 1984, Syria had roughly 47% of the military capabilities in the Syria-Turkey dyad (Singer, 1987). Thus, when Syria began supporting the PKK, Turkey and Syria were militarily competitive.

Syrian leaders supported the PKK so that they might eventually improve their chances of using coercive threats to obtain territorial concessions from Turkey (Olson, 1997). The support clearly angered Turkey, as it made the PKK more difficult to neutralize. However, in this instance, support was insufficient to provide Syria with a coercive advantage over Turkey, as Turkey held 75% of the capabilities in the Syria-Turkey dyad by 1998 (Singer, 1987). Thus, in 1998, Turkey issued its most threatening demand to date that Syria stop supporting the PKK. As Syria did not comply, Turkey amassed 10,000 troops on the Syrian border. Since Turkey was now militarily stronger than Syria, the troop mobilization quickly convinced Syria to stop supporting the PKK (Marcus, 2007). This case supports the argument that when a potential supporter is militarily competitive with a separatist group's home government, it has incentive to support the group to attempt to improve its coercive leverage over a militarily competitive government. It also bolsters the argument that militarily weak potential supporters may avoid supporting separatists due to fears that support could trigger costly military retaliation.

In addition to the discussion above, there is also evidence that when potential supporters are militarily competitive with a separatist group's home governments, this incentivizes them to provide support to gain regional influence over the separatists' home government. For example, Algeria supported the Moroccan separatist group Polisario from 1975 through 1989 (Hogbladh, Pettersson, & Themner, 2011). During this period, Algeria and Morocco had similar military capabilities.<sup>25</sup> Algerian support to Polisario was aimed at depriving Morocco of the resources necessary to exercise hegemonic influence over Mali and Mauritania (Thompson & Dreyer, 2011). This case indicates that when potential supporters are militarily competitive with separatists' home governments, they have incentive to provide long-term support to attempt to improve their relative regional influence.

The control variables generally performed as expected. Third party rebel support and rebel territorial control both significantly increase rebels' odds of receiving external support. Third party support to rebels' home governments and greater rebel military capabilities both increase the odds of rebel support. However, these increases were statistically insignificant.

In addition to the control variables included in the main article, I also include an appendix to assess whether my overall conclusions remain robust to additional tests. As described in the section on independent variables above, the appendix contains an operationalization of a potential supporter's relative military capabilities

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<sup>25</sup> Algeria held between 44% and 56% of the military capabilities in the Algeria-Morocco dyad during the entire period Algeria supported Polisario.

that incorporates third party troop contributions to both the rebels and their home government. The appendix also includes an alternative strategy for identifying which states count as a rebel group's potential supporters. This approach counts states as potential supporters if they share a border with the rebel group's home government (Gleditsch & Ward, 2001), are in the rebel group's region as defined by the World Bank (Colgan, 2010), or if the state is a major power as identified by the Correlates of War Project (2017). Major powers are those states that have the greatest ability to project their economic, diplomatic, and military influence abroad. Using the above-described strategy for identifying which states should count as potential supporters allows me to capture 82% of all instances of rebel support from 1975 through 2009. Furthermore, this strategy does not generate a large number of potential supporters with virtually no chance of actually providing support (i.e. Guatemala is not counted as a potential supporter of Indian rebels). Next, I include a statistical model identical to Model 1 in the main article, except that this model includes a control variable that takes the value of "1" if the observation occurs during the Cold War period (1945-1990), "0" otherwise. This variable is included because the Cold War period may have been correlated with both increased center-seeking goals (i.e. seeking to establish communist regimes), as well as an increase in rebel support (i.e. communist governments supporting communist rebels, and/or democratic governments supporting rebels seeking to overthrow communist governments). Finally, in order to account for different dependencies in the standard errors for differing levels of clustering, I include three models that are identical to Model 1, except one model clusters the standard errors on the rebel group, another clusters on the rebels' home

government, and a final model clusters on the potential supporter. For some of the tests of hypotheses using different levels of clustering, statistical significance levels were reduced (i.e. 95% vs. 90%) for certain ranges of a potential supporter's relative military capabilities. However, not all ranges of the military balance were meaningfully affected and some of the clustering at different levels did not alter statistical significance levels at all for certain hypotheses. Finally, the previously mentioned additional tests contained in the appendix indicated robust support for this article's main results and conclusions. Therefore, the tests in the appendix provide additional evidence regarding the reliability of this article's findings.

## **Conclusion**

This article demonstrated that states take rebels' ultimate goals into consideration when deciding whether to support them. Potential supporters expect center-seekers to fight more intense wars than separatists. Consequently, states often support center-seekers with the objective of enabling rebel victories or using support as a bargaining chip. Military strength improves potential supporters' odds of achieving these objectives. Therefore, I argued and found that increasing a potential supporter's military capabilities, relative to those of a center-seeking group's home government, significantly increases the odds of rebel support.

However, since separatist wars are more likely to be longer and less intense, states support them to enable them to inflict modest additional damage over long periods. When potential supporters are militarily competitive with separatists' home

governments, long-term support can eventually provide them with coercive advantages over previously competitive militaries. Stronger states need not expend resources supporting weaker governments' separatists, just to slowly damage militaries that are already weaker. Weaker potential supporters expect that supporting separatists would trigger costly retaliation before it would yield meaningful benefits. Therefore, I argued and found that a potential supporter is significantly more likely to support separatists when it is militarily competitive with their home government, rather when it is weaker or stronger.

In contrast with this article, the existing literature generally fails to incorporate both rebel characteristics (i.e. their goals) and relationships between potential supporters and rebels' home governments, into a single line of logic to explain rebel support (Findley & Teo, 2006; Maoz & San-Akca, 2012; Salehyan, Gleditsch, & Cunningham, 2011).<sup>26</sup> By incorporating both of these elements into one line of argument, I demonstrated that militarily stronger states are substantially more likely to support center-seekers than separatists. This result provides new evidence that domestic factors in one country (a rebel group's goals in its civil war) can influence how interstate power dynamics impact states' foreign policies. Furthermore, my findings also cast doubt on existing arguments that a potential supporter is more likely to support foreign rebels when it is militarily weaker than their home government (Bapat, 2012; Maoz & San-Akca, 2012).

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<sup>26</sup> San-Akca (2016) is the only study incorporating both of these elements into a single line of argument.



My argument regarding military capabilities and rebels' goals also adds to the literature by providing a theory that can be used to explain a broad spectrum of rebel support cases. Virtually all rebels have goals of either secession or government overthrow. Furthermore, all potential supporters have incentive to consider how their military capabilities would impact the outcome of providing rebel support. Consequently, the theory advanced here is relevant to all possible cases of rebel support. However, the most prominent existing rebel support theories focus on how interstate rivalry (Findley & Teo, 2006; Maoz & San-Akca, 2012) and shared ethnicity between rebels and potential supporters (Saideman, 1997; San-Akca, 2016) impact the odds of support. While these factors are clearly relevant, most instances of support involve neither shared ethnicity, nor interstate rivalries (Hogbladh, Pettersson, & Themner, 2011; San-Akca, 2016; Thompson, 2001). Therefore, this study adds value by providing a template that can be broadly applied to all potential cases of rebel support.

The findings presented here also have implications for future research. I found that a state is more likely to support center-seekers as it becomes militarily stronger than their home government. More powerful states have better odds of enabling center-seeker victories, or using support as a bargaining chip. However, even powerful states may expect that they would have to provide high intensity types of support, such as heavy weapons, in order to accomplish either of these objectives. Therefore, future research should investigate whether increasing a potential supporter's relative military capabilities increases the odds that it provides center-

seekers with high intensity support (i.e. heavy weapons), low intensity support (i.e. uniforms), or both.<sup>27</sup>

This article demonstrated that militarily strong states are significantly more likely to support center-seekers than separatists. Therefore, rebels' ultimate goals matter to potential supporters. When future scholars attempt to explain rebel support, they should recognize that factors thought to influence states' support decisions could operate differently for center-seekers, than they operate for separatists.

## **Appendix**

This appendix is included to determine whether the results in the main article are robust to additional tests. The appendix consists of six additional tests to verify the robustness of the results, as well as a kernel density plot showing that the distributions of the variable capturing a potential supporter's relative military capabilities are not substantially different from a normal distribution. The results below indicate that the conclusions in the main article are robust to the additional tests included in this appendix.

### Test #1 – Incorporating third party troop contributions into a potential supporter's relative military capabilities

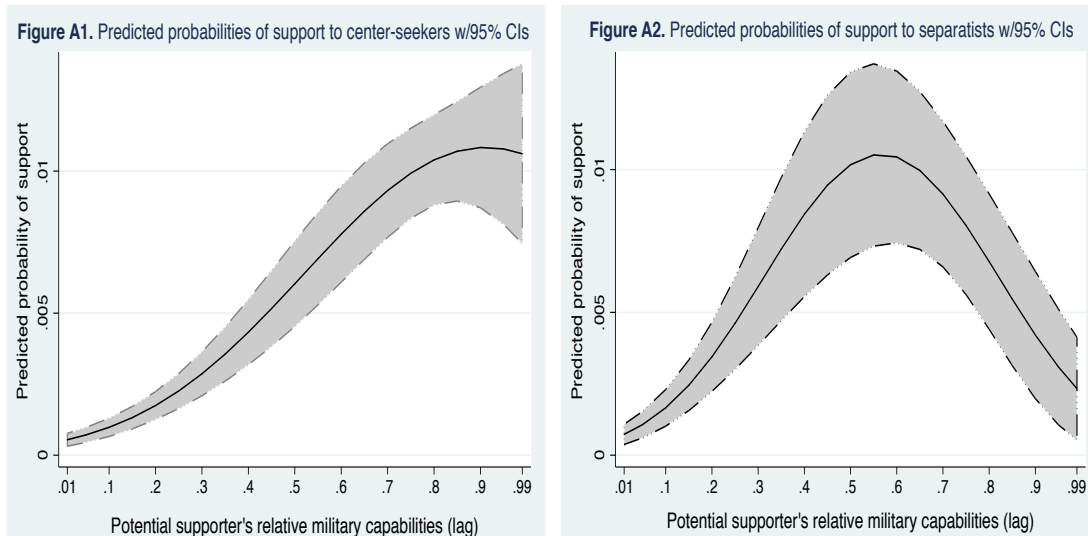
As discussed in the main article, a government other than a potential supporter can send its troops to fight alongside either the given rebel group or the rebels' home government. These troop contributions can impact a potential supporter's military capabilities, relative to the rebels' home government. I utilized secondary sources, such as books, newspapers, and journal articles to compile data on annual numbers of third party troop contributions to rebels and their home governments. Figures A1 and A2 below are based off of Model 1 in the main article, except that a potential supporter's relative military capabilities are operationalized with the following ratio:

$$\frac{((\text{Potential supporter military personnel} + \text{Third party military personnel supporting the rebels})}{(\text{Rebel home government military personnel} + \text{Potential supporter$$

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<sup>27</sup> See Siegel (2018).

military personnel + Third party military personnel supporting the rebels' home government)) / 2)

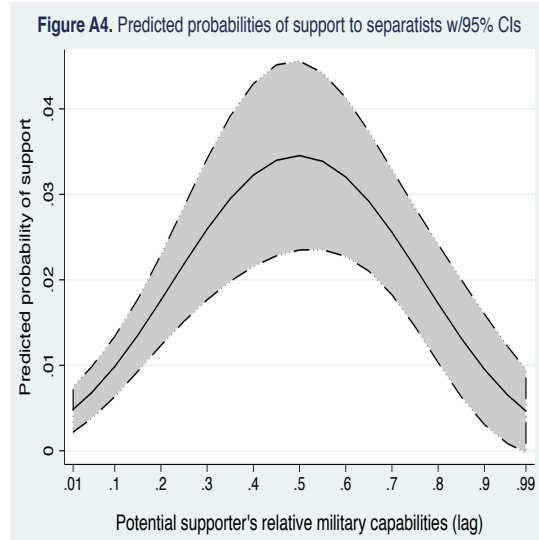
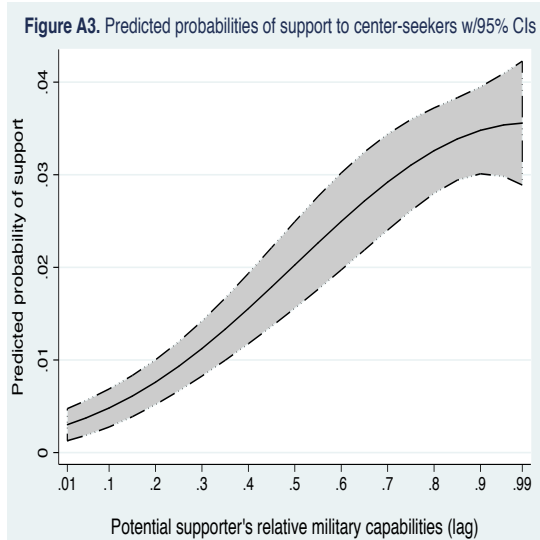


Figures A1 and A2 demonstrate that the main article's results are robust to an operationalization of a potential supporter's relative military capabilities that includes third party troop support to the rebels and their home government.

### Test #2 – An alternative strategy for identifying which states count as potential supporters

While the retrospective sampling approach used in the main article has the advantages of leveraging random sampling and including all cases of rebel support, random sampling generates some observations where there is virtually zero probability of rebel support (i.e. Honduras is unlikely to support Burmese separatists). Hence, below I use a modified politically relevant dyads approach (Starr, 1978) to identify which states count as potential supporters. With this strategy, I count states as potential supporters if they share a border with the rebel group's home government (Gleditsch & Ward, 2001), are in the rebel group's region as defined by the World Bank (Colgan, 2010), or if the state is a major power as identified by the Correlates of War Project (2017). In general, all of these states could have some interest in providing rebel support to a rebel group that they were identified as a potential supporter for. This approach allows me to capture 82% of all instances of rebel support from 1975 through 2009, without generating a large number of observations where it is virtually unthinkable for the potential supporter to provide support.

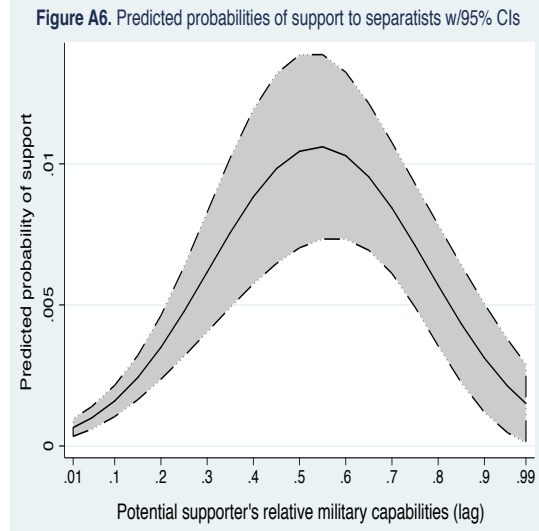
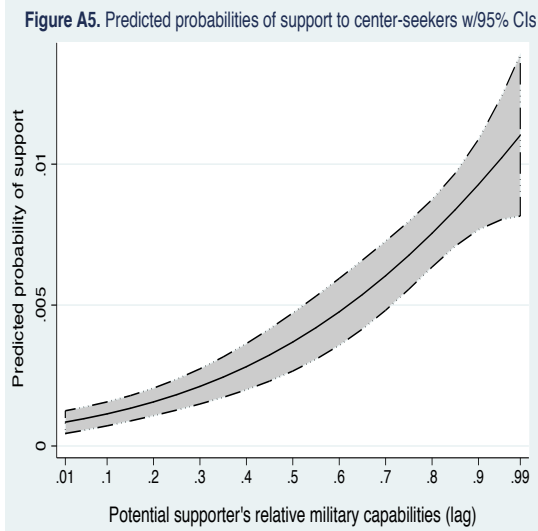
Figures A3 and A4 below are based off of Model 1 in the main article, except that I use the above-described criteria to identify which states count as potential supporters.



Figures A2 and A3 demonstrate that the main article’s results are robust to a modified politically relevant dyads approach to identifying which states count as potential supporters.

### Test #3 – Including a variable to control for the Cold War

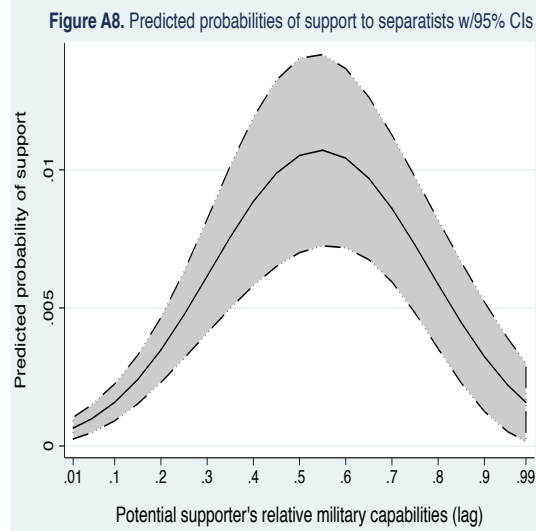
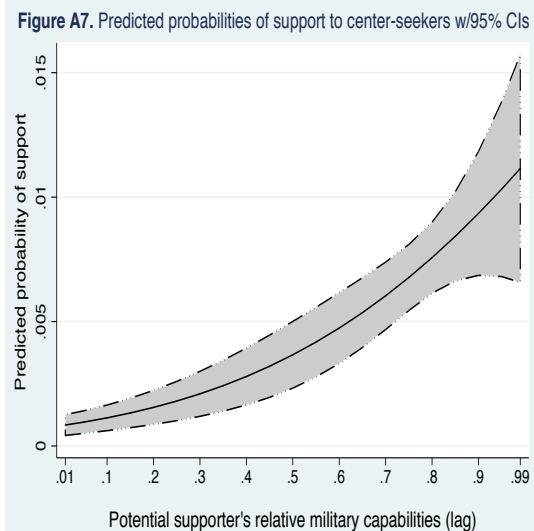
During the Cold War, there were many center-seeking wars fought between communist/Soviet-aligned and democratic/Western forces. Furthermore, during this period, the US and USSR (and their respective allies) actively supported rebels and governments that shared their democratic or communist ideologies, respectively. Thus, it is possible that the main article’s results could be driven by the Cold War period. This period was likely correlated with a large number of instances of rebel support (the dependent variable) and a large number of center-seeking rebel goals (key independent variable). Thus, Figures A5 and A6 below are based off of Model 1 in the main article, except they include a control variable that takes the value of “1” if the observation occurs during the Cold War period (1945-1990), “0” otherwise.



Figures A5 and A6 demonstrate that this article's main results are robust to the inclusion of a control variable for the Cold War period.

#### Test #4 – Clustering standard errors on the rebel group

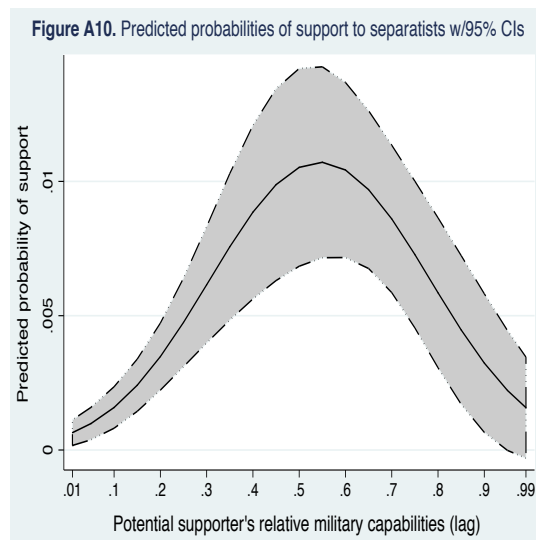
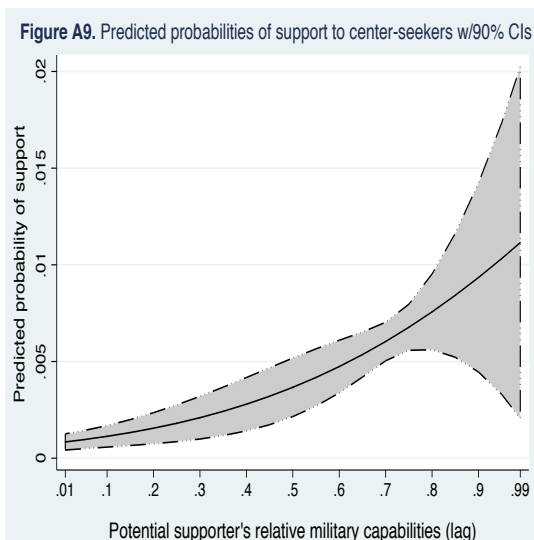
The main article clusters the standard errors on the rebel group-potential supporter dyad. It seems reasonable to assume that dependencies would exist within these dyads over time. For example, if a potential supporter decides to support a rebel group in year 1, this decision should make it more likely for that potential supporter to support that rebel group in year 2. However, dependencies could also exist at other levels of analysis. For example, certain rebel groups could be more likely to receive support from any potential supporter due to unmeasured characteristics unrelated to a single potential supporter. For instance, rebels on the verge of defeat may be likely to have numerous states come to their aid to prevent their demise. Therefore, to assess whether the main article's results are robust to a different level of clustering, Figures A7 and A8 below are based off Model 1 in the main article, except the standard errors are clustered on the rebel group.



Figures A7 and A8 demonstrate that this article's main results are robust to clustering the standard errors at the rebel group level.

Test #5 – Clustering standard errors on the rebel group's home government

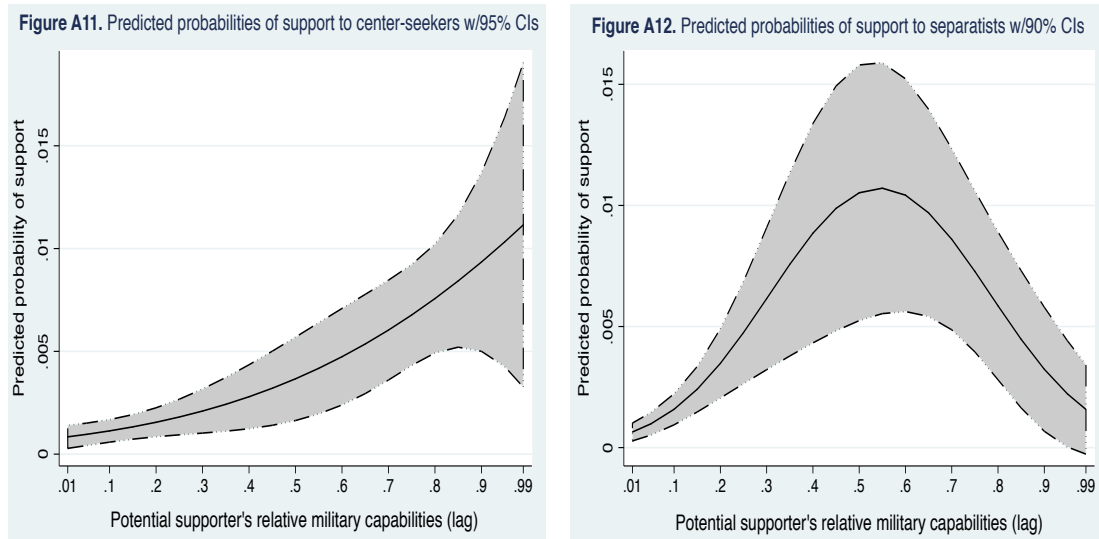
In addition to the main article clustering at the rebel group-potential supporter dyad, another logical level to cluster at is the level of the rebel group's home government. If a certain government experiencing civil war is viewed as having strategic importance to many states, this could drive correlation for the errors for rebels operating in the country. Therefore, Figures A9 and A10 below are based off of Model 1 in the main article, except for the fact that the standard errors are clustered at the level of the rebel group's home government.



While the standard errors in Figure A9 are fairly large, they are only large in a fairly narrow range (i.e. when potential supporters of center-seekers have over 85% of the relative military capabilities). In Figure A10, the standard errors are similar to those in the main article. Therefore, Figures A9 and A10 demonstrate that the main article’s results are robust to clustering the standard errors at the level of the rebel group’s home government. Clustering at this level does not change the overall conclusions drawn from the main article.

Test #6 – Clustering standard errors on the potential supporter

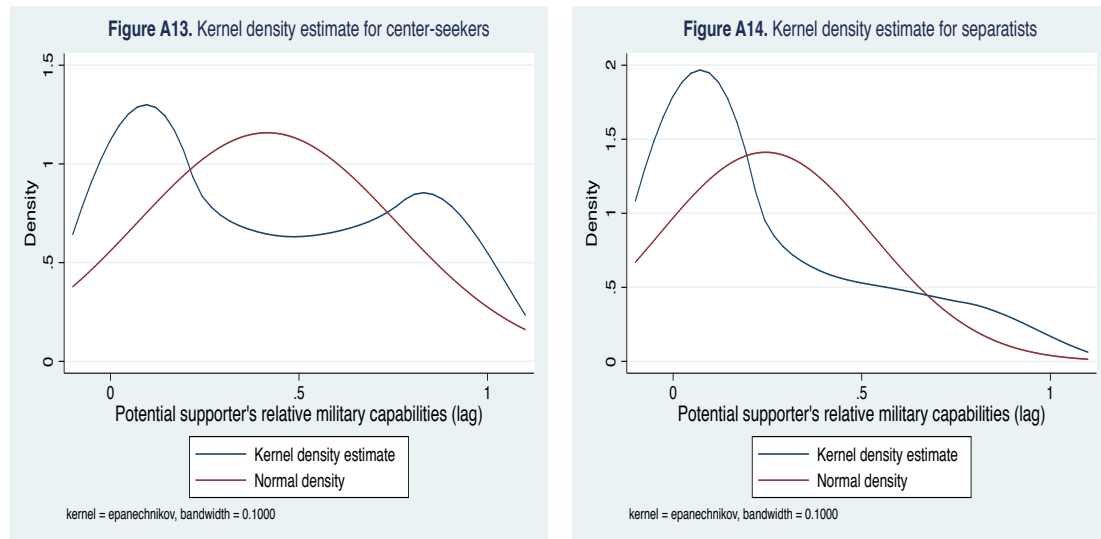
Certain potential supporters may be likely to support a wide array of rebel groups, due to potentially unmeasured factors. Libya under Muammar Gaddafi seems to fit this mold, as it supported rebel groups with different ideologies and that operated in different regions. Hence, errors could be correlated at the level of the potential supporter. Therefore, Figures A11 and A12 below are based off of Model 1 in the main article, except for the fact that the standard errors are clustered at the level of the potential supporter.



Figures A11 and A12 have larger standard errors than those in the main article. However, the standard errors are only significantly larger in a relatively small range for Figure A11 (i.e. when potential supporters of center-seekers’ relative military capabilities are greater than 90%). In any event, the confidence intervals at 95% in a two-tailed test still do not overlap as a potential supporter shifts from being militarily weaker (i.e. 0.2) to militarily stronger (i.e. 0.8). Figure A12 indicates that militarily competitive potential supporters (i.e. 0.5) are statistically (at 90%) more likely to support separatists than potential supporters that are much weaker (i.e. 0.1) or much stronger (0.9) than the separatist group’s home government. Thus, Figures A11 and A12 demonstrate that the main article’s results are robust to clustering the standard errors at the level of the potential supporter. Clustering at this level does not change the overall conclusions drawn from the main article.

## Kernel density plots of a potential supporter's relative military capabilities

Figures A13 and A14 below are included to demonstrate that the distribution of a potential supporter's relative military capabilities variable is not substantially different from how these data would look if they were normally distributed.



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## **Paper 2: How Rebels' Goals Impact Their Odds of Receiving Different Types of State Support**

### **Abstract**

Why do some rebel groups receive high intensity types of military support (i.e. heavy weapons) from foreign states, while others receive solely low intensity support (i.e. uniforms)? Rebels seeking government overthrow (center-seekers) generally fight more intense wars than rebels with separatist goals. Consequently, states support center-seekers so that they can inflict significant additional damage. However, they support separatists so that they can gradually inflict modest additional

damage. Potential supporters' military capabilities influence both their desire and capacity to achieve these objectives by providing either low or high intensity support. I argue that as potential supporters approach military dominance over center-seekers' home governments, this significantly increases the odds of high intensity support, but not low intensity support. In contrast, such a power shift should significantly decrease the odds that separatists receive low intensity support, but not high intensity support. Statistical analysis of all rebel groups active from 1975-2009 strongly supports these arguments. This article demonstrates that rebels' goals influence whether states believe low or high intensity support represents a worthwhile route for them to accomplish their sponsorship objectives.

## **Introduction**

In 1990, Libya provided anti-tank weapons to the NPFL, a Liberian rebel group (Hogbladh, Pettersson, & Themner, 2011; Sesay, 1996). Prior to receiving Libyan support, the NPFL's most powerful weapons were pistols, shotguns, and machetes (Duyvesteyn, 2004). Consequently, before it obtained Libyan support, the NPFL was militarily weak and it controlled no territory. However, after only six months of Libyan support, the NPFL had prevailed against the Liberian military in large-scale conventional battles. It also took control of 90% of Liberia (Sesay, 1996).

Unlike the sophisticated weapons that Libya provided to the NPFL, sometimes states provide rebels with support that is less likely to improve their

conventional battle performance.<sup>28</sup> For example, from 1984 through 1998, Syria intentionally allowed the PKK, a Turkish rebel group, to set bases on its territory (Hogbladh, Pettersson, & Themner, 2011). However, Syria did not provide the group with any other types of support. While the hosting benefitted the PKK, it did not significantly improve its conventional battle performance. Why did Libya provide the NPFL with support likely to improve its conventional performance, while Syria provided the PKK with support that was unlikely to do so? By understanding when rebels are likely to receive support that can improve their conventional performance, scholars can better estimate when they are likelier to present serious immediate security threats. I refer to support that is likely to improve conventional performance as high intensity support. Conversely, I refer to other types of support as low intensity.<sup>29</sup>

To identify situations that increase the odds of high intensity support, or solely low intensity support, I advance one central argument. I argue that potential supporters consider rebels' ultimate goals when deciding whether to provide them with either high intensity support, or low intensity support.<sup>30</sup> Virtually all rebel groups have goals of either overthrowing their central government, or they have separatist aims (Buhaug, 2006). I refer to rebels seeking overthrow as "center-seekers." The PKK were separatists and the NPFL were center-seekers.

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<sup>28</sup> Conventional battles involve direct rebel-to-state combat with front lines. They contrast with situations where rebels conduct mainly guerrilla attacks.

<sup>29</sup> Categorizations of high and low intensity support are provided below.

<sup>30</sup> Rebel support and rebels' goals could both be endogenous to rebels' military strength. See Siegel (2018b) for analysis, and this article's research design section for further discussion.

In order to achieve their goals of overthrowing their governments, center-seekers normally have to inflict significant damage. To do so, they generally must fight intense conventional battles, rather than conducting solely guerrilla attacks (Butler & Gates, 2009). Hence, by supporting center-seekers, states may be able to enable them to inflict substantial additional damage, which could seriously threaten the existence of the rebels' home government. Consequently, potential supporters should be more likely to support center-seekers when doing so could improve their ability to inflict significant damage in conventional battles (Siegel, 2018b). However, center-seekers are normally weaker than their governments militarily (Cunningham, Gleditsch, & Salehyan, 2013). Thus, potential supporters often assume that high intensity support would be required to substantially improve center-seekers' conventional performance. Militarily stronger states have greater capacity to improve center-seekers' conventional performance by providing high intensity support (Siegel, 2018b). Yet, even strong potential supporters often expect that low intensity support would be insufficient to significantly improve center-seekers' conventional performance. Therefore, I argue that as potential supporters' military capabilities increase from parity, towards dominance over a center-seeking group's home government, this significantly increases the odds of high intensity support, but not low intensity support.

Returning to the NPFL example, Libya's military was significantly stronger than Liberia's when it provided the NPFL with high intensity support (Singer, 1987).

Therefore, Libya had the capacity to provide the NPFL with enough high intensity support to meaningfully improve its performance in conventional battles.

Unlike center-seekers, separatists can come close to achieving their goals without inflicting significant damage. For example, separatists can sometimes convince their government that granting autonomy would be better than continuing a prolonged low intensity conflict (Siegel, 2018b). Consequently, separatists are more likely than center-seekers to fight long (Balch-Lindsay & Enterline, 2000) low intensity wars (Melander, Pettersson, & Themner, 2016). Thus, I argue that states support separatists to enable them to gradually inflict modest additional damage. This benefit is most valuable to potential supporters that are militarily competitive with separatists' home governments (Siegel, 2018b).

Competitive supporters expect that low intensity support could eventually provide them with coercive military advantages over the separatist group's home government. This logic helps explain Syria's prolonged low intensity support to the PKK. During the first seven years that Syria provided low intensity support to the group, it held an average of 46% of the military capabilities in the Syria-Turkey dyad. In contrast with militarily competitive situations, stronger potential supporters should generally avoid providing low intensity support to separatists. Strong states will perceive minimal value in providing support that only enables separatists to gradually inflict modest additional damage on weaker governments. Finally, weaker states expect that providing low intensity support to stronger governments' separatists



would never enable them to obtain a coercive military advantage. Consequently, as potential supporters approach military parity with separatists' home governments, this should significantly increase the odds of low intensity support. Statistical analysis supports this proposition, as well as this article's other hypotheses.

This article makes two important contributions to the literature. *First*, it presents the first theory with hypotheses that specify when states are likely to provide rebels with either high intensity support, or solely low intensity support.<sup>31</sup> Filling this research gap is significant, as high intensity support should have a more substantial immediate impact on civil wars. Furthermore, evidence indicates that some types of low intensity support (funding) significantly lengthen civil wars (Sawyer, Cunningham, & Reed, 2017). Therefore, by gaining greater awareness of when low intensity support is more likely, scholars can improve their predictions of which civil wars are likely to persist.

*Second*, this article demonstrates that rebels' ultimate goals have a significant impact on their odds of receiving high intensity support. For example, when potential supporters are militarily dominant over rebels' home governments, center-seekers are roughly three times more likely than separatists to receive high intensity support. This suggests that strong potential supporters expect that providing center-seekers with high intensity support could generate significant value, such as facilitating a rebel

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<sup>31</sup> San-Akca (2016) does test hypotheses on whether certain factors increase the intensity of rebel support. However, she does not directly theorize about specific types of support. Furthermore, she does not address whether there are any factors that should increase the odds of low intensity support, but not high intensity support.

victory. In contrast, strong potential supporters understand that high intensity support to separatists is unlikely to facilitate regime change. Therefore, strong states appear more willing to make large investments in center-seekers, as they expect the potential payoff to be greater.

This article proceeds as follows. *First*, I review existing explanations for rebel support. *Second*, I present a theory for how rebels' goals impact their odds of receiving high intensity support, or solely low intensity support. *Third*, I outline the research design for testing my theory's predictions. *Fourth*, I present and discuss my results. *Fifth*, I provide concluding remarks.

### **Existing explanations for different intensities of rebel support**

Most research on rebel support determinants focuses solely on explaining what factors are associated with states providing rebels with any type of support. Siegel (2018b) provides a review of these studies. Below, I review the studies that examine factors that shape the probability of varying intensities of rebel support.

Salehyan (2010) argues that potential supporters should be more likely to provide higher intensity types of rebel support (i.e. troops) when the potential supporter's sponsorship objectives are more critical and immediate. Thus, lower intensity types of support are more likely to occur when potential supporters do not consider it vital that they quickly meet a crucial rebel sponsorship objective.

Kirchner (2016), in a recent qualitative study on state support to foreign militants, finds that higher intensity support is more likely when the militants are stronger and when their home government represents a greater threat to the potential supporter. In a quantitative study, San-Akca (2016) argues that potential supporters are more likely to provide rebels with high intensity support when two conditions are met: 1) potential supporters share ideational/ethnic ties with the rebels, and 2) potential supporters have prior adversarial relations with the rebels' home government. In essence, she argues that shared ideation and interstate rivalries provide states with multiple incentives to provide rebel support, and that multiple incentives lead to higher intensity support. However, this characterization describes her entire theory regarding higher intensity support. She does not theoretically address whether a state might hesitate to provide high intensity support to co-ethnic rebels that target a militarily stronger rival. These states may avoid providing high intensity support since it could trigger costly retaliation by the stronger rival. In fact, San-Akca (2016) finds that when potential supporters share ideational ties with a rival government's rebels, this actually significantly decreases the odds of higher intensity support. However, she does find that ideational ties between a potential supporter and a rebel group's home government significantly decrease the odds that the rebels receive higher intensity support. This is San-Akca's only other hypothesis addressing support intensities. Consequently, the existing literature provides no statistically verified theories that explain higher intensities of rebel support. Furthermore, neither of San-Akca's hypotheses on support intensities are derived from a comprehensive theory. For example, she provides no direct discussion as to whether states expect

certain types of (high intensity) support would be optimal in enabling them to accomplish their objectives. Therefore, this research provides the first large-N study with a comprehensive theory explaining how states' support objectives influence the intensity of support they provide.

## **Theory**

The theory below explains why certain factors increase the odds that a state provides high intensity support to a rebel group in any given year. It also identifies situations that increase the odds that states provide solely low intensity support.

My central argument is that states consider how they expect civil wars to unfold, when deciding whether to provide high intensity support, or solely low intensity support. I posit that states normally expect center-seeking wars to be more intense. Therefore, I contend that states have two main objectives in supporting center-seekers. First, they seek to use support to facilitate center-seeker victories. Second, they seek to use support as a “bargaining chip,” by providing it for a period and then promising to revoke it in exchange for concessions from the rebels' home government (Siegel, 2018b).

## Center-seekers and external support

To overthrow existing governments, center-seekers generally must overrun government defenses and take control of strategically<sup>32</sup> important areas, such as the capital. Thus, center-seekers frequently concentrate large numbers of forces in small areas. They do so to attempt to inflict substantial damage on important locations. Consequently, potential supporters often expect that center-seeking wars will involve intense conventional battles for control of these regions. While concentrating forces enables center-seekers to inflict significant damage, it also makes it easier for governments to quickly destroy large numbers of rebel forces (Siegel, 2018b). Therefore, if states cannot provide center-seekers with significant support, they risk supporting a group that may face speedy elimination.<sup>33</sup>

### *Potential supporters' military capabilities and the intensity of support to center-seekers*

Since center-seekers may face quick elimination, states should be more likely to support them when they can prevent this, and when they believe support could enable them to accomplish their ultimate sponsorship objectives. I argue that states' ultimate objectives in supporting center-seekers are to facilitate rebel victories and to

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<sup>32</sup> Strategic can refer to economic or political importance, or geographic importance, which relates to rebels' enhancing their prospects for militarily advancing towards important areas.

<sup>33</sup> See Siegel (2018b) for evidence indicating that center-seekers are more likely to fight more intense wars.

use support as a bargaining chip to obtain concessions from the rebels' home government (Siegel, 2018b). A potential supporter's military capabilities, as well as the type of support it provides, will each impact how effective supporters would be at achieving these objectives. Furthermore, a supporter's military capabilities and the type of support it provides will influence the supporter's ability to prevent speedy center-seeker defeats. Therefore, variation in potential supporters' military capabilities is relevant to explaining changes in the odds that center-seekers receive high intensity support, or solely low intensity support.

When potential supporters are militarily weaker than center-seekers' home governments, the possible benefits of providing low intensity support are often outweighed by the risk of costly retaliation. For example, in 1976, Botswana began hosting ZANU-PF, a rebel group fighting to overthrow the racist Rhodesian government (Hogbladh, Pettersson, & Themner, 2011). Botswana was militarily weaker than Rhodesia, as it held just 3% of the capabilities in the Botswana-Rhodesia dyad (Singer, 1987). The hosting angered Rhodesia, and it retaliated by attacking a Botswana police station in December 1976, killing several police officers (New York Times, 1976). The attack convinced Botswana to stop supporting ZANU-PF (Hogbladh, Pettersson, & Themner, 2011). Even though the Rhodesian civil war continued for several years, Botswana never renewed its support, despite its incentive to support ZANU-PF's efforts to overthrow the racist Rhodesian regime. Botswana's military weakness also meant it was unlikely that providing low intensity support would be decisive in enabling a ZANU-PF victory, or in facilitating the use of

support as a bargaining chip.<sup>34</sup> Military weakness makes it difficult for a supporter to pressure the rebels' home government into making concessions. Therefore, Botswana's short-lived support to ZANU-PF suggests that weak states will often hesitate to provide low intensity support to stronger states' center-seekers. Such support is unlikely to enable supporters to accomplish their ultimate objectives, yet it could trigger costly retaliation.

Relatedly, militarily weak states should also generally avoid providing high intensity support to stronger governments' center-seekers. Weaker states do have better odds of improving center-seekers' conventional performance by providing high intensity support. However, higher intensity support is generally easier for a rebel group's home government to detect and thus more likely to trigger costly retaliation. Furthermore, weak states can rarely provide significant quantities of high intensity support, while maintaining sufficient military resources to defend themselves against retaliation by stronger governments. Thus, potential supporters should rarely provide high intensity support to stronger governments' center-seekers.

Compared to militarily weak potential supporters, when potential supporters are militarily competitive with center-seekers' home governments, they can afford to provide greater magnitudes of low intensity support. Greater amounts of low intensity support are more likely to prevent center-seekers' concentrated forces from being

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<sup>34</sup> Militarily stronger states have significantly greater success using support as a bargaining chip. States that successfully used support to center-seekers as a bargaining chip had a median value of 85% of the military capabilities in the supporter-rebel home government dyad. See Siegel (2018b).

quickly defeated. For example, Guinea provided LURD, a Liberian center-seeking group, with significant quantities of light weapons and materiel during the first years of its rebellion in 2000 and 2001 (Hogbladh, Pettersson, & Themner, 2011; Kaihko, 2015). During these years, Guinea and Liberia were militarily competitive (Singer, 1987).<sup>35</sup> Guinea's support was key at preventing an initially weak LURD from being quickly defeated (Kaihko, 2015). If Guinea had been militarily weaker than Liberia, it may have calculated that the magnitude of low intensity support it could provide would not have prevented a quick LURD defeat. Thus, as potential supporters' military capabilities increase from weakness, towards parity with a center-seeking group's home government, this should significantly raise the odds of low intensity support.

However, some militarily competitive potential supporters may anticipate that high intensity support would be required to prevent quick center-seeker defeats, and for the supporter to achieve its ultimate objective. These potential supporters can afford to provide greater magnitudes of high intensity support, when compared to states that are militarily weaker than center-seekers' home governments. Consequently, militarily competitive supporters have better odds of eventually using high intensity support as a bargaining chip, or to enable center-seeker victories. Therefore, as potential supporters' military capabilities increase from weakness, towards parity with a center-seeking group's home government, this should significantly increase the odds of high intensity support.

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<sup>35</sup> Guinea held 52% of the military capabilities in the Guinea-Liberia dyad (Singer, 1987).



The analysis above leads to the following hypothesis:

**H1A:** As potential supporters' military capabilities increase from weakness, towards parity with a center-seeking group's home government, this significantly increases the odds of both high and low intensity support.

Center-seekers are more likely than separatists to operate near government power centers in the interior of the country (Buhaug & Rod, 2006) where their governments can easily monitor them. Thus, if potential supporters want to train center-seekers and/or provide them with heavy weapons, they often must send personnel to areas that the government can easily monitor. Consequently, if states wish to provide center-seekers with high intensity support, they face a risk of interdiction and militarized confrontation. However, if potential supporters are militarily stronger than center-seekers' home governments, they have minimal reason to fear that retaliation would be costly (Siegel, 2018b). Additionally, stronger states have greater abilities to avoid interdiction. Therefore, militarily stronger states face the lowest risks by providing high intensity support to center-seekers.

Strong potential supporters should often expect that by providing high intensity support, they could enable center-seekers to inflict significant damage on their governments in conventional battles. For example, stronger states can frequently afford to provide center-seekers with large quantities of heavy weapons. Significant amounts of these weapons can enable the center-seekers to meaningfully challenge

their government in intense conventional battles. Stronger supporters can also dedicate larger numbers of troops to fighting alongside (or training) center-seekers, without worrying that such a use of soldiers would leave them vulnerable to other security threats. Therefore, compared to potential supporters that are militarily competitive with center-seekers' home governments, stronger states can more easily provide sufficient high intensity support to enable center-seeker victories.

Even if strong potential supporters do not have the objective of enabling center-seeker victories, they still have incentive to provide high intensity support. For instance, militarily stronger states should expect better odds that providing high intensity support, rather than solely low intensity support, would enable them to use rebel sponsorship as a bargaining chip to obtain concessions. Because stronger states can provide the greatest magnitudes of high intensity support, they can more easily enhance center-seekers' performance in conventional battles. Furthermore, governments are more likely to concede to powerful states, since these states can hurt them more if they refuse their demands for concessions in exchange for revoking high intensity support (Siegel, 2018b). Therefore, as potential supporters' military capabilities increase from parity, towards dominance over a center-seeking group's home government, this should increase their odds of successfully using high intensity support as a bargaining chip. Powerful states also face comparably low retaliatory risks by providing either high or low intensity support. Finally, stronger states have better odds of using high intensity support as a bargaining chip to obtain concessions, when compared to situations where they provide solely low intensity support.

Consequently, as potential supporters approach military dominance over center-seekers' home governments, this should not significantly increase these states' odds of attempting to use low intensity support as a bargaining chip. Furthermore, even militarily strong potential supporters will rarely expect that they could facilitate center-seeker victories by providing the rebels with solely low intensity support.

To summarize, as potential supporters approach military dominance over center-seekers' home governments, their odds of achieving their sponsorship objectives by providing high intensity support will rise. While it is theoretically possible that militarily strong potential supporters could obtain concessions by providing center-seekers with solely low intensity support, high intensity support is more likely to be effective as a bargaining chip. Furthermore, compared to militarily competitive potential supporters, stronger states will worry less that providing high intensity support would limit their abilities to defend against retaliation and/or other potential security threats. Thus, as potential supporters' approach military dominance over center-seekers' home governments, the odds of high intensity support should significantly rise, while the odds of low intensity support should not.

Therefore, the analysis above leads to the following hypothesis.

**H1B:** As potential supporters' military capabilities increase from parity, towards dominance over a center-seeking group's home government, this

significantly increases the odds of high intensity support, but not low intensity support.

### Separatists and external support

Unlike center-seekers, separatists may not need to inflict significant damage to accomplish their goals. They can sometimes convince their government that granting autonomy would be better than continuing a low-intensity guerrilla conflict where the government is unlikely to permanently prevail. Thus, separatists normally have little incentive to concentrate their forces and fight intense conventional battles.<sup>36</sup> Avoiding force concentration makes it tougher for governments to quickly eliminate large numbers of separatists. Consequently, separatists' wars often last for long periods.<sup>37</sup> Furthermore, separatists are more likely than center-seekers to fight in mountainous areas (Tollefsen & Buhaug, 2015), closer to international borders (Buhaug & Rod, 2006), and further from the capital (Buhaug, 2006).

These characteristics of separatist conflicts mean that potential supporters seldom expect that supporting separatists would enable them to inflict significant damage on strategically important regions. Thus, states rarely anticipate that

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<sup>36</sup> Evidence confirms that separatist wars are less likely to involve intense conventional battles in close quarters. See Siegel (2018b).

<sup>37</sup> Evidence supports this logic. Balch-Lindsay and Enterline (2000) find that separatist goals make civil conflicts last significantly longer.

supporting separatists would facilitate rebel victories.<sup>38</sup> Furthermore, because supporting separatists normally only enables them to slowly inflict modest additional damage, many potential supporters expect that it would be difficult to use support to separatists as a bargaining chip (Siegel, 2018b).

However, supporting separatists can eventually force their home government to send more soldiers on long trips through mountainous terrain, in order to fight separatists that have been strengthened by external assistance. These trips will drain government soldiers' fighting capabilities. Therefore, supporting separatists can force their government to divert additional resources to rough, faraway regions, and this can eventually degrade their military capabilities (Siegel, 2018b). A potential supporter's own military capabilities should determine how much it values this benefit that can come from supporting separatists.

*Potential supporters' military capabilities and the intensity of support to separatists*

Separatists are less likely than center-seekers to attempt to inflict significant damage. They are also less likely to attack politically important areas. Thus, low intensity support would take considerable time before it would make a meaningful difference in improving separatists' abilities to militarily degrade their home governments. Militarily weak states have the lowest capacity to provide sufficient low intensity support to accomplish this sponsorship objective. However, states that are

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<sup>38</sup> Evidence verifies that separatists rarely win. From 1975-2009, separatists won only 2% of their wars, while center-seekers won 14% (Kreutz, 2010).

militarily weaker than separatists' home governments may sometimes contemplate providing large amounts of low intensity support. Yet, such support would likely trigger costly retaliation before it could degrade the stronger government's military capabilities enough for the supporter to obtain meaningful coercive benefits.<sup>39</sup>

In contrast with militarily weak potential supporters, when states are militarily competitive with separatists' home governments, low intensity support can provide significant benefits. Competitive potential supporters can more easily afford to provide larger quantities low intensity support. This enables separatists to equip additional soldiers for guerrilla attacks. Having more separatists armed for long periods can put meaningfully greater continuous pressure on the government (Siegel, 2018b). Thus, by providing long-term low intensity support to a militarily competitive government's separatists, a supporter can eventually obtain a coercive military advantage over a government that initially had similar capabilities.

Military competitiveness often indicates tensions over regional influence (i.e. Iran and Iraq under Saddam Hussein). Therefore, by providing low intensity support to a competitive government's separatists, the supporter can militarily degrade its competitor, which eventually enables it to improve its regional influence. For example, Algeria provided low intensity support to the Moroccan separatist group Polisario for nine years during the 1980s (Hogbladh, Pettersson, & Themner, 2011).

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<sup>39</sup> Possible benefits include leveling the military playing field or eventually enabling the use of support as a bargaining chip.

During this period, Algeria and Morocco had similar military capabilities.<sup>40</sup> Algeria supported Polisario in order to deter Morocco from exerting influence over Mauritania and Mali (Thompson & Dreyer, 2011). Additionally, since low intensity support forces governments to divert resources to rough, faraway regions, it makes these governments other regions more vulnerable to attacks from militarily competitive supporters. In contrast, weaker potential supporters generally cannot use low intensity support to separatists to prepare the way for effective military attacks, or to meaningfully improve their regional influence. Consequently, as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this should significantly increase the odds of low intensity support.

Compared to militarily weak potential supporters, competitive potential supporters also have greater incentive to provide separatists with high intensity support. Stronger states can more easily provide sufficient high intensity support to enable separatists to inflict greater amounts of damage. Thus, they can force more of the separatist home government's soldiers to travel long distances to fight the separatists. Weaker states would have greater difficulty providing sufficient high intensity support to accomplish this objective, while maintaining an ability to defend against retaliation and other potential security threats. If weak states send troops to train and/or provide heavy weapons to separatists, this leaves them with fewer military resources to defend themselves. Furthermore, if weaker states were to

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<sup>40</sup> Algeria held an average of 49% of the military capabilities in the Algeria-Morocco dyad during the 1980s (Singer, 1987).

provide high intensity support, such assistance would generally be harder for them to conceal than low intensity support (i.e. funding). Consequently, militarily weaker states are more likely to face quick and costly retaliation for providing high intensity support to stronger governments' separatists. Therefore, as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this should significantly increase the odds of high intensity support.

The analysis above leads to the following hypothesis.

**H2A:** As potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this significantly increases the odds of both high and low intensity support.

Unlike militarily competitive situations, when potential supporters are stronger than a separatist group's home government, they can preserve their military advantages without expending resources supporting the separatists. Separatists rarely attempt to inflict substantial damage on important areas (Siegel, 2018b). Consequently, strong potential supporters expect that providing low intensity support to separatists may not enable them to put significant additional pressure on their home government. Stronger states have minimal incentive to expend resources just to slowly degrade the military capabilities of a government over which they already enjoy a significant coercive advantage (Siegel, 2018b). Relatedly, states can maintain



their regional dominance over weaker countries without providing the weaker government's separatists with low intensity support. In contrast, when potential supporters are militarily competitive with a separatist group's home government, low intensity support can eventually provide the supporter with a coercive advantage that it had not previously held. Therefore, as potential supporters' military capabilities increase from parity, towards dominance over a separatist group's home government, this should significantly decrease the odds of low intensity support.

While a potential supporter has less incentive to provide low intensity support to separatists as it approaches military dominance over their home government, this power shift should not significantly decrease the odds of high intensity support. If separatists receive high intensity support from strong states, this could give them confidence to intensify their attacks. Consequently, stronger potential supporters may perceive value in providing significant quantities of high intensity support. Such support could empower the separatists to put meaningful pressure on their home government. Therefore, when potential supporters are militarily stronger than separatists' home governments, they have incentive to provide high intensity support for a period, and to then promise to revoke it in exchange for a concession. For example, in 1974, Iran had 74% of the military capabilities in the Iran-Iraq dyad (Singer, 1987). During that year, Iran sent its troops to fight alongside the KDP, an Iraqi separatist group (Hoagland, 1975; Hogbladh, Pettersson, & Themner, 2011). In March of 1975, Iran agreed to withdraw its troop support for the KDP in exchange for control of half of the disputed Shatt al-Arab waterway (Schultz, 2010). Hence,

stronger potential supporters have some incentive to provide high intensity support to weaker governments' separatists in order to attempt to obtain concessions. It is unlikely that Iran would have been able to obtain a territorial concession from Iraq, had it only been providing low intensity support (i.e. funding) to the Iraqi separatists.

As discussed above, when compared to militarily competitive potential supporters, stronger ones can more easily use high intensity support to separatists as a bargaining chip. However, competitive potential supporters also have incentive to provide high intensity support in order to obtain a coercive advantage over a government that initially has comparable capabilities. Yet, stronger states have little reason to pay the financial costs of providing high intensity support only to slowly degrade a government over which they already have a clear coercive advantage. Therefore, while stronger potential supporters can more easily obtain concessions by providing high intensity support, competitive ones have greater incentive to provide such support to gradually degrade a military competitor. Due to these competing factors, increasing a potential supporter's military capabilities, from parity towards dominance over a separatist group's home government, should have no significant impact on the odds of high intensity support.

The analysis above leads to the following hypothesis.

**H2B:** As potential supporters' military capabilities increase from parity, towards dominance over a separatist group's home government, this significantly decreases the odds of low intensity support, but not high intensity support.

Table I below summarizes this article's main predictions.

Table I. Predictions on the odds of rebel support

	<i>Center-seekers</i>		<i>Separatists</i>	
	High intensity support	Low intensity support	High intensity support	Low intensity support
Increasing PS Rel. Milcap. from weaker to parity	+	+	+	+
Increasing PS Rel. Milcap. from parity to dominance	+	n.s.	n.s.	-

"PS Rel. Milcap" = a potential supporter's military capabilities, relative to the capabilities of the rebels' home government.

"+" = a statistically significant increase in the odds of support.

"-" = a statistically significant decrease in the odds of support.

"n.s." = a statistically insignificant impact on the odds of support.

## Research design

### Unit of analysis

To test my hypotheses, I employ the rebel group-rebel home government-potential supporter-year as the unit of analysis. The analysis period is 1975-2009. I use the Non-State Actor Dataset to identify rebels and their home governments

(Cunningham, Gleditsch, and Salehyan 2013).<sup>41</sup> The existing rebel support literature uses a variety of methods for identifying which states count as potential supporters for foreign rebel groups. Some studies include all states in the international system as potential supporters (Maoz & San-Akca, 2012). Others only count states as potential supporters if they form politically relevant dyads with a rebel group's home government (San-Akca, 2016). Finally, some scholars only include states as potential supporters if they are rivals with a rebel group's home government (Bapat, 2012). Each of these approaches has drawbacks.

First, utilizing either rivalries or politically relevant dyads to identify potential supporters excludes cases of rebel support from the analysis. For example, during the 1970s and 1980s, Cuba supported rebel groups in Africa and the Middle East (Hogbladh, Pettersson, & Themner, 2011). However, Cuba was not a rival of these rebel groups' home governments (Thompson & Dreyer, 2011). Furthermore, Cuba did not form politically relevant dyads with these governments (San-Akca, 2016). Consequently, identifying potential supporters based on either rivalries or politically relevant dyads would exclude these instances of support from the analysis.

Second, including all states in the international system as potential supporters generates a large number of potential supporters with virtually zero probability of supporting certain rebel groups. For example, it seems unlikely that Guatemala would ever support Indian separatists. Due to the drawbacks of the existing methods of

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<sup>41</sup> If rebels cease fighting for over two years and subsequently restart, I code a new conflict.

identifying potential supporters, I use retrospective sampling to identify them (King & Zeng, 2001).<sup>42</sup>

This procedure begins 1) by including as potential supporters all states that actually supported each rebel group. For example, Eritrea was the only state that supported the Sudanese rebel group JEM in 2003. Therefore, at this point, Eritrea is the only state that counts as a potential supporter for JEM. 2) *Next*, I temporarily include as potential supporters; all states in the international system (Bennett & Stam, 2000) that did not support a given rebel group. This means that Ghana, India, Egypt, etc. are all temporarily counted as potential supporters for JEM. 3) *Finally*, I take all of the states that are temporarily included as potential supporters and I randomly select 50% of these cases to exclude from the final analysis.<sup>43</sup> Therefore, the final sample includes the following states as potential supporters: 1) all of the states that actually provided support, and 2) 50% of the states that did not actually provide support. This approach is ideal because a) it includes all cases of support, and b) it provides randomness in identifying potential supporters. Randomness ensures that some states that have incentive to damage rebels' home governments get included as potential supporters, and that some states that appear to lack this incentive also get included. Including states as potential supporters even though they do not appear likely to provide support is valid because these states do sometimes provide support (Hogbladh, Pettersson, & Themner, 2011).

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<sup>42</sup> I utilize prior correction to correct the constant term in the retrospective sample, as advised by King and Zeng (2001).

<sup>43</sup> Other sample sizes yield similar results (available from author).

### Dependent variable

The dependent variable, *Support intensity*, captures whether a potential supporter 1) provided no support, 2) provided solely low intensity support, or 3) provided any type of high intensity support, in a given year. The rationale behind this categorization is that when states provide any type of high intensity support, such assistance is more likely than low intensity support to meaningfully improve the rebels' performance in conventional battles. I use the UCDP External Support Dataset (ESD) to identify rebels' supporters (Hogbladh, Pettersson, & Themner, 2011). The ESD include one observation for each rebel-home government-supporter triad, for each year rebels were supported.<sup>44</sup>

### Categorizing rebel support intensities

I define high intensity support as assistance that is more likely (than low intensity support) to meaningfully improve rebels' performance in conventional battles. In conventional battles, government forces often have tanks and armored vehicles. Government soldiers also frequently have body armor. Furthermore, governments set up defensive perimeters and fortifications to prevent rebel advances. They also use airpower in order to neutralize rebels in conventional battles. Finally, government soldiers are generally well trained for conventional combat. Therefore,

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<sup>44</sup> Support either "exists," or is "alleged." I set alleged support to missing. This is consistent with current practice (Karlen, 2017). Alleged support accounts for less than 8% of support that occurred from 1975 through 2009 (Hogbladh, Pettersson, & Themner, 2011).

when identifying what counts as high intensity support, I focus on three main factors.

- 1) Is the support likely to meaningfully improve the rebels' ability to destroy armored vehicles, armored personnel, or aircraft? Or, does the support itself consist of armored vehicles or aircraft?
- 2) Is the support likely to meaningfully improve the rebels' ability to inflict casualties on government soldiers located behind defensive perimeters and/or fortifications (i.e. sandbags)?
- 3) Is the support likely to significantly improve the performance of the rebels' ground troops when they fight conventional battles?

The UCDP External Support Dataset identifies nine types of rebel support. The types of support are: combat troop support, training, joint operations, weapons, access to territory, funding, intelligence materials, materiel/logistics support, and miscellaneous types of support (i.e. running a rebel radio station) (Hogbladh, Pettersson, & Themner, 2011).

I classify the following types of support as low intensity: funding, light weapons, access to territory, intelligence materials, materiel/logistics support, and miscellaneous support (i.e. running a rebel radio station). Next, the following types of support are classified as high intensity: troops, training, heavy weapons, and joint operations. The ESD does not identify whether weapons provided to rebels were heavy or light. Therefore, when rebels received weapons, but did not receive troops, training, or joint operations assistance, I collected data on whether the weapons received were heavy or light. I used secondary sources, such as scholarly journals,

official government documents, books, and newspapers, in order to collect these data. The sections below outline the rationale for classifying different types of support as either high or low intensity.

### *High intensity support*

I classify combat troop support as high intensity support. State troops are generally well trained for conventional battles. Consequently, when states provide their own troops to fight alongside the rebels, these greater numbers of well-trained troops can significantly improve the rebels' performance in conventional battles.

Next, I categorize training as high intensity support. Rebel fighters often lack basic training in conventional fighting tactics. Trainers can direct rebels in the most effective tactics to break through the government's defensive lines, such as tank formations. Furthermore, trainers can show rebels how to best use the weapons available to them. Therefore, by training foreign rebels, supporters can meaningfully improve their performance in conventional battles.

While the UCDP identifies whether supporters provide rebels with weapons, it does not identify whether the weapons were relatively light (i.e. rifles), or whether they were heavier (i.e. anti-aircraft weapons). However, heavier weapons are more likely to meaningfully improve rebels' performance in conventional battles. For example, the United States provision of anti-aircraft weapons to Afghan rebels in the



1980s marked a turning point in the war. Furthermore, heavy weapons such as mortars, enable rebels to inflict damage on government forces even when they have defensive fortifications (i.e. sandbags). In contrast, lighter weapons are less likely to significantly improve rebels' performance in conventional battles. Therefore, I collected data on whether states provided rebels with light or heavy weapons. I discuss the data collection procedures in subsequent paragraphs. I categorize heavy weapons as high intensity support and light weapons as low intensity support.

The final type of high intensity support occurs when states conduct joint operations with rebels. When rebels obtain direct state support for their operations, this should improve their ability to perform well in conventional battles. The other types of high intensity support are more likely to have larger impacts than joint operations. However, joint operations should have a more significant impact than the low intensity types of support. In any event, joint operations only occur without another form of high intensity support four times (Hogbladh, Pettersson, & Themner, 2011).

#### *Low intensity support*

At times, states intentionally allow rebels to set bases on their territory (aka hosting) (Hogbladh, Pettersson, & Themner, 2011). The main benefit of hosting is for cross-border attacks. Cross-border attacks are generally of a hit-and-run nature. Thus, hosting can improve guerrilla-style operations, but it is unlikely to significantly

improve rebels' performance in conventional battles for control of strategically important regions. Therefore, I categorize hosting as low intensity support.

States frequently fund foreign rebels. Yet, funding only represents an indirect route towards improving rebels' performance in conventional battles. Rebels could use funds to acquire heavy weapons. However, if rebels acquire heavy weapons from a third state, that state would be the provider of high intensity support. Furthermore, rebels may use funds to pay for items that are unlikely to significantly improve their conventional performance, such as food. Consequently, I classify funding as low intensity support.

The UCDP identifies materiel/logistics support as occurring when states provide "non-weaponry and non-ammunition" supplies (Hogbladh, Pettersson, & Themner, 2011). Examples include uniforms and transportation of food. Such assistance is unlikely to significantly improve rebels' performance in conventional battles. Therefore, I categorize materiel/logistics as low intensity support.

Finally, I categorize intelligence materials (i.e. maps) and miscellaneous forms of support (i.e. running a rebel radio station), (Hogbladh, Pettersson, & Themner, 2011) as low intensity support. While potentially useful, these types of support are unlikely to meaningfully improve rebels' performance in conventional battles.

## Collecting data on heavy vs. light weapons

If rebels receive weapons that significantly improve their abilities to destroy tanks, armored vehicles, or aircraft, I code such support as heavy weapons. I also code heavy weapons support as occurring when states provide rebels with tanks, armored vehicles, or aircraft. Furthermore, if rebels receive weapons that can significantly improve their ability to inflict casualties on government soldiers located behind defensive perimeters and/or fortifications (i.e. sandbags), I code this support as heavy weapons. The types of weapons discussed above are the most likely to significantly improve rebels' performance in conventional battles for control of territory. Examples of heavy weapons include: anti-tank weapons (i.e. RPGs, SPG9s, anti-tank missiles, multiple grenade launchers, recoilless rifles, etc.), anti-aircraft weapons (i.e. stinger missiles, other man-portable air defense systems, larger air defense systems), mortars, howitzers, tanks, armored vehicles, and aircraft. Examples of light weapons include: rifles (i.e. AK-47s, M-16s), handguns, landmines, ammunition for rifles and other light guns, grenades, and IEDs. If sources indicate a state provided any of the types of heavy weapons listed above in a given year, I code this as heavy weapons support. If sources mention only light weapons, I code this as light weapons support. If I find evidence of weapons support, but no clear mention of heavy weapons, I code light weapons.<sup>45</sup>

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<sup>45</sup> Journalists and analysts have incentive to uncover big stories. Thus, they should examine whether states have undertaken the unorthodox policy of providing rebels with heavy weapons. The fact that rebels have heavy weapons often becomes apparent with their use. For example, if rebels display abilities to destroy aircraft, they likely have anti-aircraft weapons. Possession of such weapons cannot, by itself,

The excerpt below represents an example of text used to code heavy weapons:

“On July 1, the day ships finished unloading the last-known consignment of Iraqi weapons at the Christian port of Jounieh-40 to 60 Soviet-made T-54 and T-55 tanks, 130mm and 122mm artillery guns, and ammunition, according to various sources-Iraq said publicly that it would stop all military assistance to Aoun. But Syria remains unconvinced (Boustany, 1989).” Aoun refers to the leader of the center-seeking “Lebanese Forces.” Thus, this excerpt shows Iraqi heavy weapons support to the Lebanese Forces in 1989.

The excerpt below represents an example of text used to code light weapons:

“This time, intriguingly enough, the guns are said to have been Czech-made AK-47s, the standard assault rifle of the Eastern bloc. Most accounts imply that Singapore bought the weapons on the international market, probably from a third-world country (Quinn-Judge, 1982).” This excerpt identifies that Singapore provided light weapons to the KPRLF, a Cambodian center-seeking group, in 1982.

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prove that a certain state provided them, but it incentivizes individuals to find the weapons’ source. When rebels using anti-aircraft weapons have known state supporters, reporters often attempt to identify whether the supporters provided the heavy weapons. Therefore, when sources identify that rebels were provided with weapons, but do not identify them, the most logical realistic approach is to code such support as light weapons.

Table II below shows the distribution of light and heavy weapons.

Table II. Annual frequencies of states providing light and heavy weapons to rebel groups, 1975-2009

	<i>Frequency</i>	<i>Percentage</i>
Light weapons	142	26.2%
Heavy weapons	401	73.8%
<i>Total</i>	<i>543</i>	<i>100.0%</i>

### Independent variables

This article utilizes the same independent and control variables as those described in Siegel (2018b). Refer to Siegel (2018b) for more thorough descriptions of these variables as well as the rationale supporting the inclusion of the control variables.

*Rebels' goals* – This variable takes the value “1” if the rebels are center-seekers and “0” if they are separatists (Melander, Pettersson, & Themner, 2016).

*Potential supporter's relative military capabilities (lag)* – I use military personnel and expenditures to measure military capabilities (Singer, 1987). After incorporating the lags and averages described in Siegel (2018b), the following ratio operationalizes a potential supporter's relative military capabilities:

$$\left( \frac{\text{Potential supporter military personnel}}{\text{Rebel home government military personnel} + \text{Potential supporter military personnel}} \right) / 2 + \left( \frac{\text{Potential supporter military expenditures}}{\text{Rebel home government military expenditures} + \text{Potential supporter military expenditures}} \right) / 2$$

I expect the probability of low intensity support to separatists to have an inverted-U shaped relationship as potential supporters relative military capabilities increase from 0 towards 1. Therefore, I include both a linear and squared term for this variable. Squaring enables me to capture a parabolic relationship between a potential supporter's relative military capabilities and the probability of low intensity support to separatists. As this relationship is expected for separatists, I multiply both the linear and squared terms of this capabilities variable by the rebels' goals variable.

Similar to Siegel (2018b), this article also includes an appendix to ensure that the results for the military balance ratio are robust to the inclusion of third party troop support to both the rebel group's home government and the rebel group itself. The appendix to this article demonstrates that my results are robust to the following operationalization of the military balance that includes third party troop support to the rebels and the rebels' home government:

$$\frac{\text{Potential supporter military personnel} + \text{Third party military personnel supporting the rebels}}{\text{Rebel home government military personnel} + \text{Potential supporter}}$$

military personnel + Third party military personnel supporting the rebels' home government)) / 2)

### Control variables

Following Achen's (2005) guidance, I only include control variables that are plausible confounders between my key independent variables and rebel support.

*Rebels' relative military capabilities (log)* – Rebel military strength could be correlated with both center-seeking goals and an increased likelihood of rebel support (Siegel, 2018b). Therefore, I include the following control variable: *Rebels' relative military capabilities (log)* = Number of Rebel Soldiers / (Number of Rebel Soldiers + Number of Rebel Home Government Soldiers) (Cunningham, Gleditsch, & Salehyan, 2013).

*Rebel territorial control* – Rebel control of territory could be correlated with both separatist goals (the key independent variable) and a higher likelihood of receiving state support (the dependent variable) (Siegel, 2018b). Thus I include a variable that takes the value “1” if the rebels control internal territory and “0” if they do not (Cunningham, Gleditsch, & Salehyan, 2013).

*Third party rebel support* – If a rebel group receives support from a state other than the given potential supporter, these instances of sponsorship could be correlated

with both center-seeking wars and greater odds of the potential supporter providing rebel support (Siegel, 2018b). Consequently, I include a variable that is coded “1” if a rebel group receives support from any state other than the given potential supporter in the given year (Hogbladh, Pettersson, & Themner, 2011). Otherwise, I code this variable “0.”

*Third party government support* – If a rebel group’s home government receives support from a state other than the given potential supporter, these instances of sponsorship could be correlated with both center-seeking wars and greater odds of the potential supporter providing rebel support (Siegel, 2018b). Consequently, I include a variable that is coded “1” if a rebel group’s home government receives support from any state other than the given potential supporter in the given year (Hogbladh, Pettersson, & Themner, 2011). Otherwise, I code this variable “0.”

*Time, Time<sup>2</sup>, Time<sup>3</sup>* – These variables count the number of years since the given potential supporter provided either low or high intensity support to the given rebel group. They are included to control for temporal dependence, as suggested by Carter and Signorino (2010).



## Method

I utilize a multinomial probit model to test my hypotheses.<sup>46</sup> This method allows me to estimate how covariates impact the likelihood of both high and low intensity support, in reference to the base category of no support.<sup>47</sup> As rebel support is likely correlated within rebel group-potential supporter dyads, I cluster the standard errors on the rebel group-potential supporter dyad.

## **Empirical results**

Table III displays the distribution of the dependent variable.

Table III. Distribution of low and high intensity support by rebel group-supporter-year, 1975-2009

	Model 1	
	<i>Frequency</i>	<i>Percentage</i>
No support	161,343	99.13%
Low intensity support	544	0.33%
High intensity support	876	0.54%
<i>Total</i>	<i>162,763</i>	<i>100%</i>

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<sup>46</sup> Ordinal probit represents another possible approach. Such a model assumes coefficients have identical slopes across all dependent variable categories. However, I argued that as potential supporters approach military dominance over rebels' home governments, the probability of high intensity support to center-seekers should rise significantly, while there should be no significant impact on the odds of high intensity support to separatists. Thus, ordinal probit would be inappropriate to test my theory.

<sup>47</sup> I also considered multinomial logit. However, multinomial logit imposes the independence of irrelevant alternatives assumption. Tests indicated that this assumption was violated. Despite this, the results for multinomial logit were not significantly different (available from author).

Table IV below begins the statistical analysis with a multinomial probit regression model.<sup>48</sup> H1A-H2B are all interactive hypotheses. Consequently, the interaction term coefficients and p-values cannot be directly used to test my hypotheses (Brambor, Clark, & Golder, 2006). Therefore, I use the figures below Table IV to determine whether my hypotheses are supported.

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<sup>48</sup> The highest variance inflation factor (excluding the temporal dependence controls and the linear and squared terms, which are correlated by definition) is 1.23. Variance inflation factors below 4 indicate that multicollinearity does not present problems (Gujarati, Porter, & Gunasekar, 2012).

Table IV. Multinomial probit analysis of low and high intensity support, 1975-2009

	<i>Model 1</i>	
	<i>Low intensity support</i>	<i>High intensity support</i>
Rebels' goals	0.10 (0.20)	-0.20 (0.25)
Potential supporter's relative military capabilities (lag)	6.29*** (0.90)	4.65*** (1.09)
Rebels' goals * Potential supporter's relative military capabilities (lag)	-3.72*** (1.08)	-1.64 (1.32)
Potential supporter's relative military capabilities (lag) <sup>2</sup>	-6.37*** (1.10)	-3.58*** (1.18)
Rebels' goals * Potential supporter's relative military capabilities (lag) <sup>2</sup>	4.28*** (1.26)	2.85** (1.37)
Rebels' relative military capabilities (log)	0.07** (0.03)	-0.05 (0.03)
Rebel territorial control	-0.04 (0.10)	0.39*** (0.10)
Third party government support	0.07 (0.09)	0.08 (0.10)
Third party rebel support	1.28*** (0.09)	1.68*** (0.10)
Constant	-3.73*** (0.21)	-4.32*** (0.27)
Observations	162,763	162,763

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-potential supporter dyad. Standard errors in parentheses. Temporal dependence controls omitted for presentational purposes.

Figures 1 through 4 below assess whether my hypotheses are supported. These figures plot a potential supporter's relative military capabilities on the X-axis and the predicted probabilities of low and high intensity support on the Y-axis.<sup>49</sup> In all of the

<sup>49</sup> Predicted probabilities are calculated by holding covariates at their observed values, as advised by Hanmer and Kalkan (2013).

figures, the solid black lines represent the predicted probabilities of support and the gray shaded areas represent confidence intervals.

### Assessing support for H1A and H1B

Figures 1 and 2 below are based off Model 1 and they are included to assess support for H1A and H1B. Both of these hypotheses receive strong support. Figure 1 plots the probability of low intensity support to center-seekers. Increasing a potential supporter's capabilities from 0.15 to 0.50 increases the probability of low intensity support from 0.001 to 0.002. This represents a 100% increase in the probability of support ( $((0.002 - 0.001) / 0.001) = 1$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant.

Next, Figure 2 plots the probability of high intensity support to center-seekers. Increasing a potential supporter's capabilities from 0.15 to 0.50 increases the probability of high intensity support from 0.0004 to 0.0021. This represents a 425% increase in the probability of support ( $((0.0021 - 0.0004) / 0.0004) = 4.25$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant. Consequently, as potential supporters' military capabilities increase from weakness, towards parity with a center-seeking group's home government, this significantly increases the odds of both high and low intensity support. Therefore, H1A receives strong support.

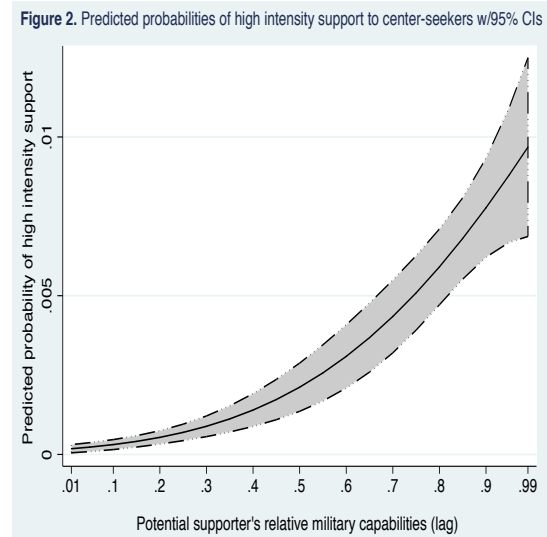
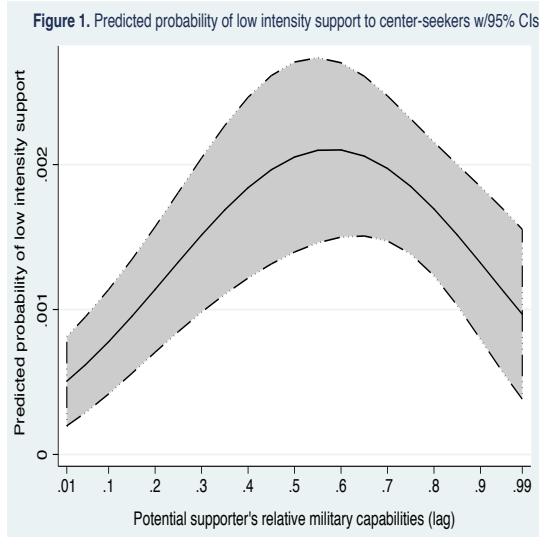
Moving to H1B, Figure 2 demonstrates that increasing a potential supporter's capabilities from 0.50 to 0.85 increases the probability of high intensity support from 0.002 to 0.007. This represents a 250% increase in the probability of support ( $((0.007 - 0.002) / 0.002) = 2.5$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant. Finally, Figure 1 indicates that increasing a potential supporter's capabilities from 0.50 to 0.85 decreases the probability of low intensity support from 0.002 to 0.0015%. Since the 95% confidence intervals around these probabilities overlap, this decrease is statistically insignificant. Consequently, as potential supporters' military capabilities increase from parity, towards dominance over a center-seeking group's home government, this significantly increases the odds of high intensity support, but not low intensity support. Therefore, H1B receives strong support.

From 1975-2009, 29 center-seeking groups defeated their governments militarily (Kreutz, 2010). Fifteen of these groups (52%) received state support in either the year they achieved victory, or the year before (Hogbladh, Pettersson, & Themner, 2011).<sup>50</sup> Supporters provided high intensity support in 12 of these 15 victories (80%). Most of these supporters were militarily stronger than the center-seekers' home government. In fact, the median high intensity supporter had 86% of the military capabilities in the supporter-rebel home government dyad. (Singer, 1987). This statistic upholds the argument that supporters have better odds of enabling center-seeker victories when the supporter meets both of the following

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<sup>50</sup> Only two groups received support in the year before they achieved victory, but did not receive support in the year of victory.

criteria: 1) they are militarily stronger than the rebels' home government, and 2) they provide high intensity support.



### Assessing support for H2A and H2B

Figures 3 and 4 below are based off Model 1 and they are included to assess support for H2A and H2B. Both of these hypotheses receive strong support. Figure 3 plots the probability of low intensity support to separatists. Increasing a potential supporter's capabilities from 0.15 to 0.50 increases the probability of low intensity support from 0.002 to 0.007. This represents a 250% increase in the probability of support ( $((0.007 - 0.002) / 0.002) = 2.5$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant. Thus, as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this significantly increases the odds of low intensity support.

In the theory section above, I argued that militarily competitive potential supporters have incentive to provide separatists with low intensity support, in order to reduce a competitor's ability to use its military capabilities against the supporter's interests. Iranian low intensity support to the PKK, a Turkish separatist group, supports the logic behind this argument. While Iran supported the PKK, it was militarily competitive with Turkey, as it held an average of 59% of the capabilities in the Iran-Turkey dyad (Singer, 1987).

During the Iran-Iraq war, Iran developed tensions with Turkey. In 1986, Turkey conducted cross-border attacks against Iraqi rebels. The Iranians viewed these attacks as indirect support for the Iraqi regime, which the Iranians were fighting at the time (Cohen, 1986). Consequently, from 1986 through 1989, Iran retaliated against Turkey by providing low intensity support (hosting, funding) to the PKK (separatists attacking Turkey) (Hogbladh, Pettersson, & Themner, 2011). Since Iran was militarily competitive with Turkey, it was not overly concerned that support would lead to costly Turkish retaliation. Consequently, this example supports the logic that as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this should significantly increase the odds of low intensity support.

Next, Figure 4 plots the probability of high intensity support to separatists. Increasing a potential supporter's capabilities from 0.15 to 0.50 increases the probability of high intensity support from 0.001 to 0.003. This represents a 200%

increase in the probability of support ( $((0.003 - 0.001) / 0.001) = 2$ ). Since the 95% confidence intervals around these probabilities do not overlap, this increase is statistically significant. Consequently, as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this significantly increases the odds of both high and low intensity support. Therefore, H2A receives strong support.

In the theory section above, I argued that militarily competitive potential supporters have more incentive than militarily weaker states, to provide separatists with high intensity support. High intensity support can force large numbers of the separatist home government's troops to travel long distances. Thus, these governments may become militarily bogged down in distant regions. Eritrea's high intensity support to the ONLF, an Ethiopian separatist group, supports this logic.

In May 1998, the Eritrean military attacked the town of Badme, a disputed city on the Eritrea-Ethiopia border. The attack triggered an interstate war that killed nearly 100,000 people through its end in 2000. In 1999, Eritrea began providing the ONLF, an Ethiopian separatist group, with high intensity support (training, weapons). Eritrea continued supporting the ONLF through 2008 (Hogbladh, Pettersson, & Themner, 2011).<sup>51</sup> While Eritrea supported the ONLF, it was militarily competitive with Ethiopia, as it held an average of 39% of the military capabilities in the Eritrea-Ethiopia dyad (Singer, 1987). Eritrea initially supported the ONLF in order to force

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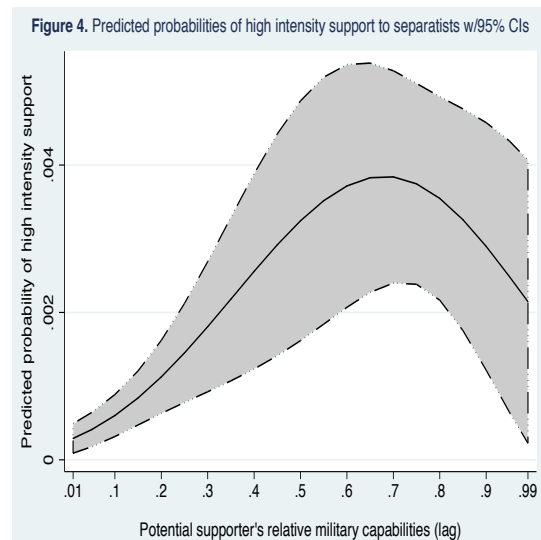
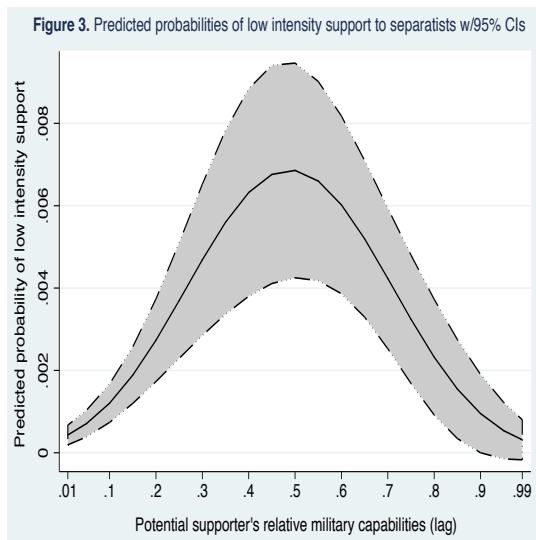
<sup>51</sup> There was one pause, as Eritrea did not support the ONLF in 2003 (Hogbladh, Pettersson, & Themner, 2011).



Ethiopia to send more troops to fight the separatists in the East. This weakened Ethiopia's military power near the site of the Eritrea-Ethiopia border war (Lyons, 2009). Although, the border war ended in 2000, tensions between the two remained high. Even after the war, Eritrean support to the ONLF was aimed at forcing Ethiopia to divert additional resources to fight the separatists in the East (Lyons, 2009). For example, in 2008, Eritrea re-occupied a temporary security zone, and it was supporting the ONLF at the time, in order to reduce Ethiopia's ability to challenge the occupation. If Eritrea were significantly weaker than Ethiopia, it is less likely that it would have provided long-term high intensity support to the ONLF. A significantly weaker Eritrea should have calculated that even high intensity support would be insufficient to enable it to successfully re-occupy disputed territory. Furthermore, if Eritrea were clearly militarily inferior to Ethiopia, it would have expected that high intensity support would lead to quick and costly retaliation. Therefore, this example supports the logic that as potential supporters' military capabilities increase from weakness, towards parity with a separatist group's home government, this should significantly increase the odds of high intensity support.

Moving to H2B, Figure 3 demonstrates that increasing a potential supporter's capabilities from 0.50 to 0.85 decreases the probability of low intensity support from 0.007 to 0.002. This represents a 250% decrease in the probability of support ( $((0.007 - 0.002) / 0.002) = 2.5$ ). Since the 95% confidence intervals around these probabilities do not overlap, this decrease is statistically significant. Finally, Figure 4 indicates that increasing a potential supporter's capabilities from 0.50 to 0.85 increases the

probability of high intensity support from 0.00324 to 0.00325. Since the 95% confidence intervals around these probabilities overlap, this increase is statistically insignificant. Consequently, as potential supporters' military capabilities increase from parity, towards dominance over a separatist group's home government, this significantly decreases the odds of low intensity support, but not high intensity support. Therefore, H2B receives strong support.



The control variables generally performed in line with expectations. Third party rebel support significantly increases the odds that a potential supporter provides the rebels with both low and high intensity support. Increasing a rebel group's military strength significantly raises its probability of receiving low intensity support, yet there is a statistically insignificant impact on high intensity support. Rebel territorial control significantly increases the likelihood that rebels receive high intensity support, but there is no statistically significant impact for low intensity support. Third party support to a rebel group's home government increases the odds

of both low and high intensity support, yet this effect is statistically insignificant in both instances.

In order to determine whether this article's main results are robust to additional tests, I include an appendix below. The appendix contains an operationalization of the potential supporter's relative military capabilities that includes third party troop support to both the rebels and their home government. It also includes a variable controlling for the Cold War time period, an alternative strategy for identifying which states count as potential supporters, and statistical models that cluster the standard errors on different levels of analysis. Clustering the standard errors at different levels reduced statistical significance levels (i.e. 95% to 90%) for limited ranges of the interstate military balance. Yet, most ranges were unaffected and some of the clustering at different levels did not meaningfully alter the level of statistical significance at all for some of the hypotheses. The tests described above are all described in greater detail in (Siegel, 2018b). The remainder of the tests described above also demonstrates that this article's main results and conclusions are robust to these additional procedures. The appendix also includes a statistical model identical to the main article, except that when rebels receive weapons support, but there is no indication whether the weapons were light or heavy, I code these observations as the rebels receiving heavy weapons support. Recall that in the main article I coded these observations as rebels receiving light weapons support. The results of the main article are robust to this alternative coding procedure for heavy

weapons. Thus, the appendix below demonstrates that the results and conclusions from the main article are robust to a battery of additional tests.

## **Conclusion**

This article demonstrated that states take rebels' ultimate goals into consideration when deciding whether to provide them with high intensity support, or solely low intensity support.

Center-seekers have incentive to fight high intensity wars. Thus, I argued that states support them with the ultimate objective of enabling rebel victories, or using support as a bargaining chip. In contrast to center-seekers, separatists often fight long low intensity wars. This led me to argue that states often support them with the objective of enabling them to inflict modest additional damage over long periods. A potential supporter's military capabilities influence both its support objectives and its capacity to achieve them by supporting either center-seekers or separatists (Siegel, 2018b). Therefore, I argued that potential supporters consider both rebels' goals and their own military capabilities, when determining whether low or high intensity support would provide the ideal route for them to accomplish their sponsorship objectives. Empirical analyses strongly supported the hypotheses that I derived from developing this argument. Consequently, this article demonstrated that potential supporters' military capabilities, as well as rebels' goals, jointly influence whether states believe low or high intensity support represents a worthwhile route to achieving their goals.

I found that as potential supporters' military capabilities increase from parity, towards dominance over a center-seeking group's home government, this significantly increases the odds of high intensity support, but not low intensity support. This suggests that strong states expect that providing high intensity support to center-seekers would give them meaningfully better chances of accomplishing their sponsorship objectives. It also indicates that militarily strong states are willing to pay the larger financial costs associated with providing high intensity support to center-seekers, in order to have better odds of realizing their goals.

In contrast, increasing a potential supporter's military capabilities from parity towards dominance over a separatist group's home government decreases the odds of high intensity support. This implies that stronger states believe high intensity support to center-seekers is more likely to bring significant value, while they believe such support to separatists is less likely to do so. Therefore, strong states appear more willing to make large investments in center-seekers, as they expect the potential payoff to be greater.

This finding has policy implications. When states have tense relations with weaker governments experiencing civil conflict, they should be significantly more likely to provide high intensity support to the rebels if they are center-seekers. In theory, high intensity support can significantly destabilize governments experiencing either center-seeking or separatist wars. However, if third-party policymakers want to

promote the stability of existing governments, they have greater incentive to focus on preventing strong states from providing high intensity support to center-seekers. Stronger states are significantly less likely to provide high intensity support to weaker governments' rebels when the insurgents have separatist goals.

Next, the findings for separatists upheld my argument that states often support them so that they can inflict modest additional damage for long periods. I argued that potential supporters value this benefit the most when it can enable them to gain a coercive advantage over an initially competitive military (Siegel, 2018b). I found that states are more likely to provide low intensity support to separatists when such potential supporters are militarily competitive with their home governments, rather than when they are weaker or stronger. This suggests that weaker potential supporters believe that providing low intensity support to stronger governments' separatists may trigger costly retaliation before it could generate a meaningful interstate power shift. Furthermore, this finding indicates that stronger states perceive minimal value in providing low intensity support to weaker governments' separatists. Such support would only enable separatists to inflict modest additional damage on militaries that are already significantly weaker.

This article presented the first theory explaining why certain factors increase/decrease the odds of high intensity support, while others increase/decrease the odds of solely low intensity support. Certain low intensity support (funding)

lengthens civil wars. Therefore, this article contributes to the literature by explaining why some rebels are likely to receive conflict-prolonging low intensity support.

In conclusion, this article also has implications for future research. Future work should consider how a supporter's capabilities, and the type of support it provides, jointly influence civil war duration. For example, can militarily competitive supporters significantly prolong separatist wars by providing the rebels with low intensity support? Does such support also prolong center-seeking wars?<sup>52</sup> Research has demonstrated that rebel support increases the odds of both civil war recurrence (Karlen, 2017) and of interstate conflict between the supporter and the rebels' home government (Schultz, 2010). Future research can examine whether these consequences of rebel support operate differently for center-seekers and separatists, and whether different intensities of support are more likely to cause recurrence and/or interstate violence.

## **Appendix**

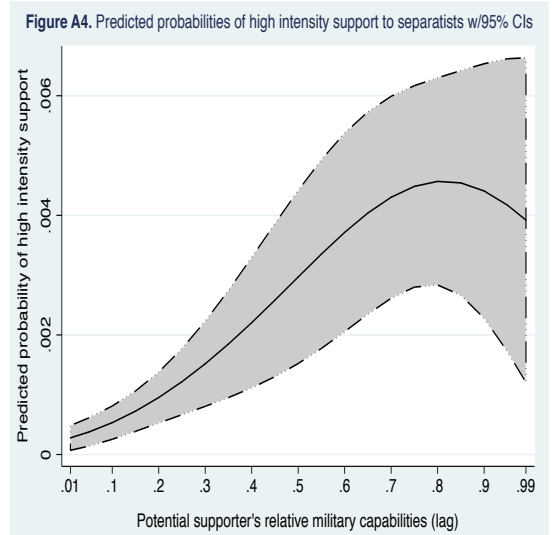
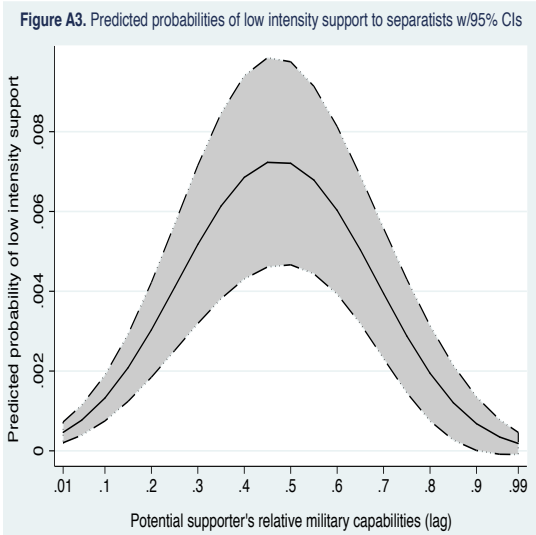
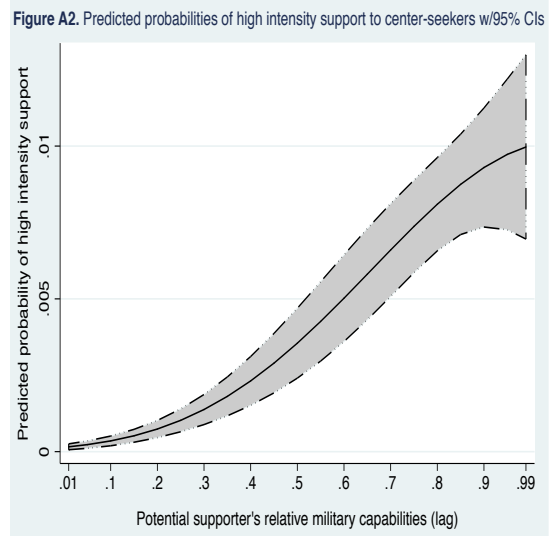
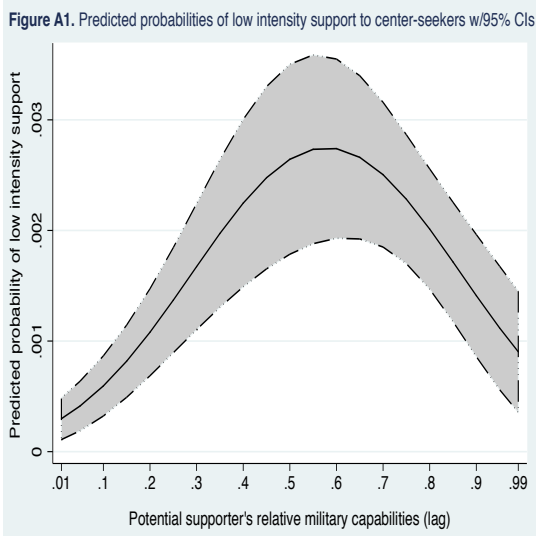
This appendix is included to determine whether the results in the main article are robust to additional tests. The appendix consists of seven additional tests to verify the robustness of the results. The first six tests are identical to those in the appendix to Siegel (2018b). The seventh test contains figures that are based off Model 1 in the main article, except that when rebels receive weapons support, but there is no indication whether the weapons were light or heavy, I code these observations as the rebels receiving heavy weapons support. The results below indicate that the conclusions in the main article are robust to the additional tests included in this appendix.

### Test #1 – Incorporating third party troop contributions into a potential supporter's relative military capabilities

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<sup>52</sup> See Siegel (2018a).

Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.



The figures above demonstrate that this article's main results are robust to including third party troop support in the operationalization of a potential supporter's relative military capabilities.



Test #2 – An alternative strategy for identifying which states count as potential supporters

Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.

Figure A5. Predicted probabilities of low intensity support to center-seekers w/95% CIs

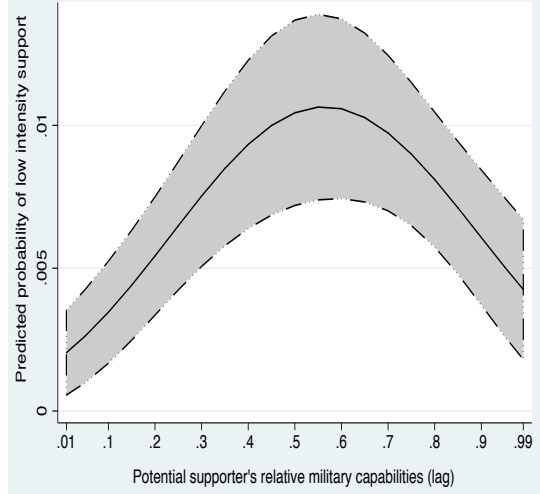


Figure A6. Predicted probabilities of high intensity support to center-seekers w/95% CIs

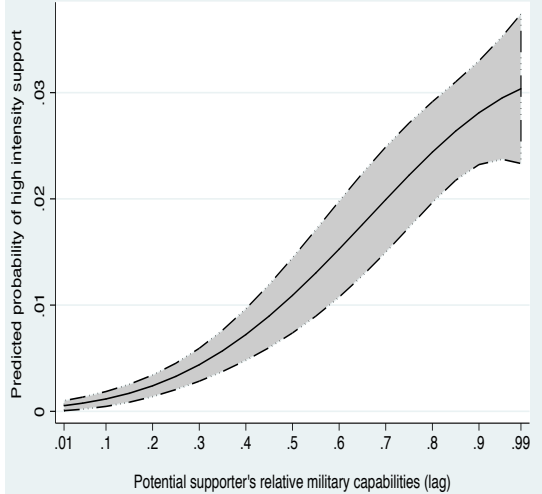


Figure A7. Predicted probabilities of low intensity support to separatists w/95% CIs

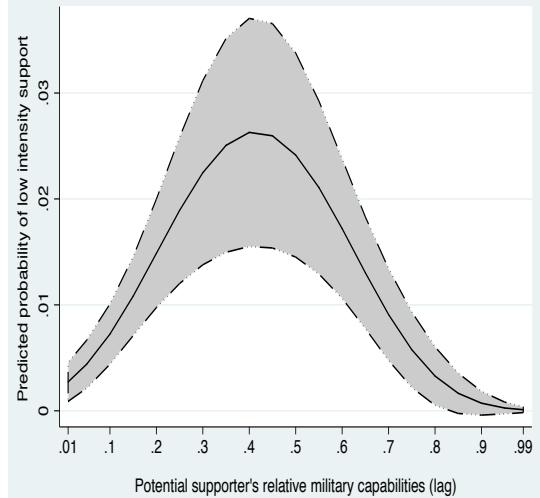
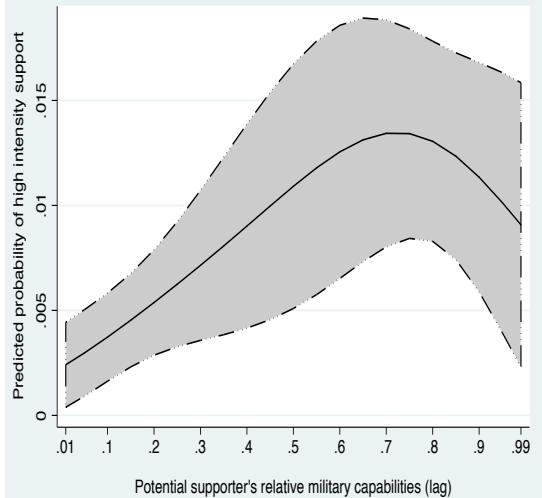


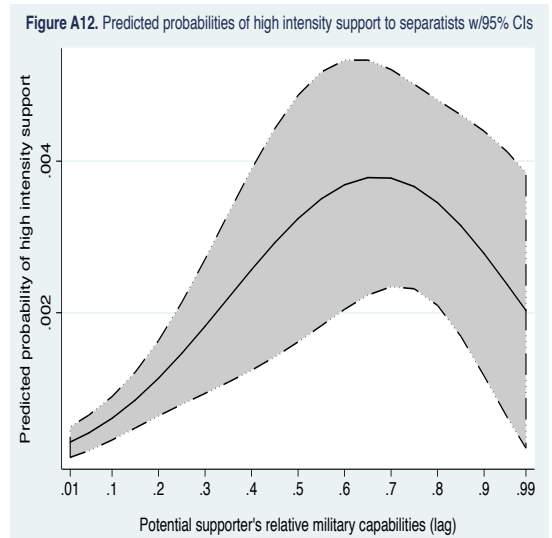
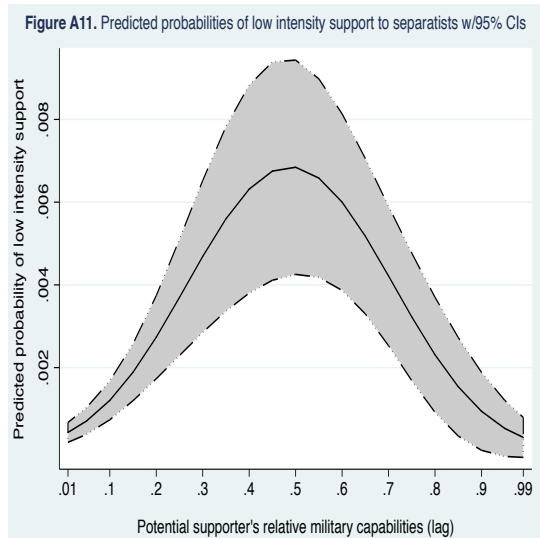
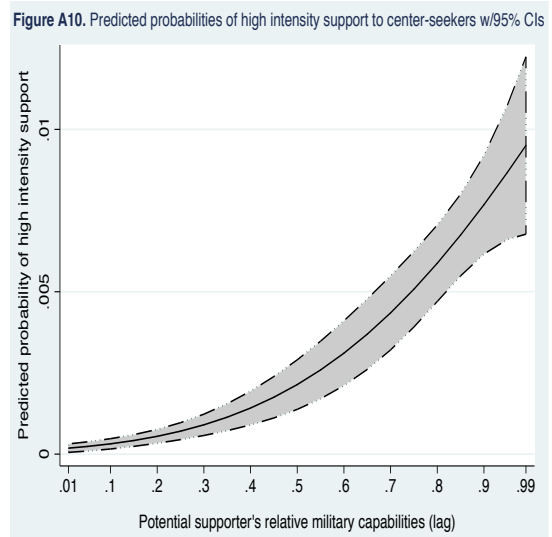
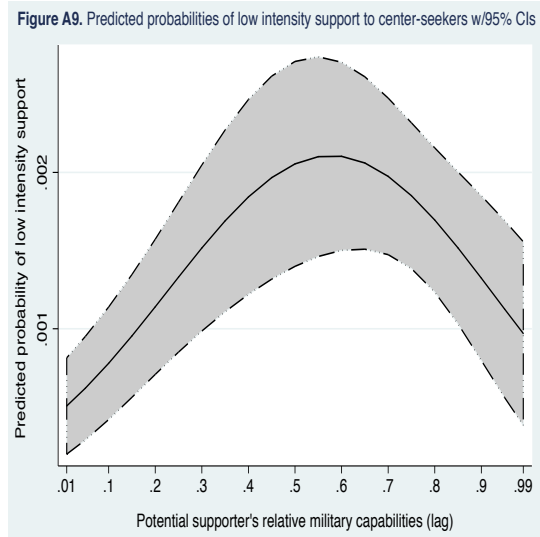
Figure A8. Predicted probabilities of high intensity support to separatists w/95% CIs



The figures above demonstrate that this article's main results are robust to using a modified version of politically relevant dyads to identify which states count as potential supporters for a given rebel group.

### Test #3 – Including a variable to control for the Cold War

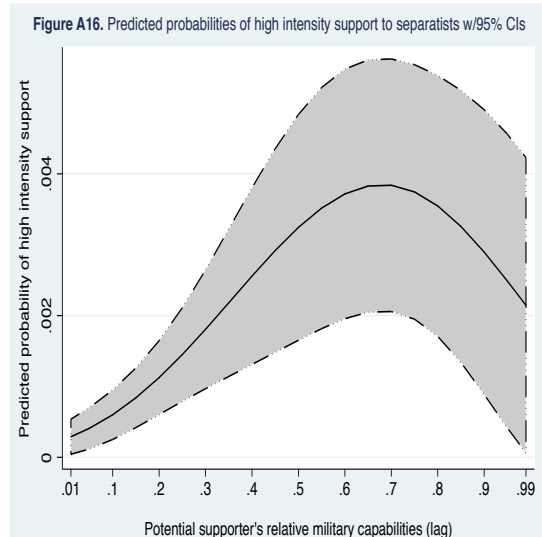
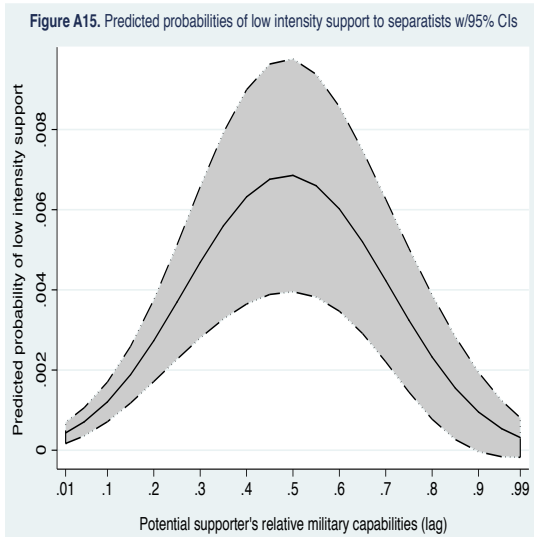
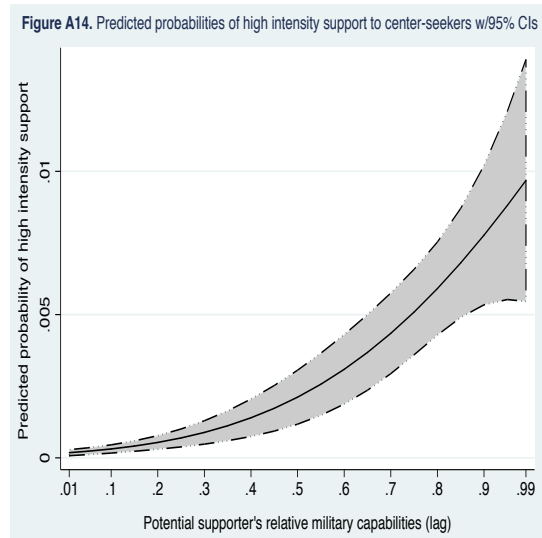
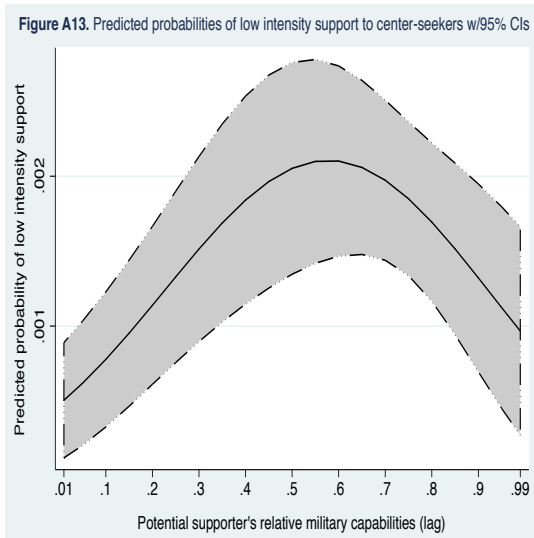
Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.



The figures above demonstrate that this article's main results are robust to including the Cold War period as a control variable.

## Test #4 – Clustering standard errors on the rebel group

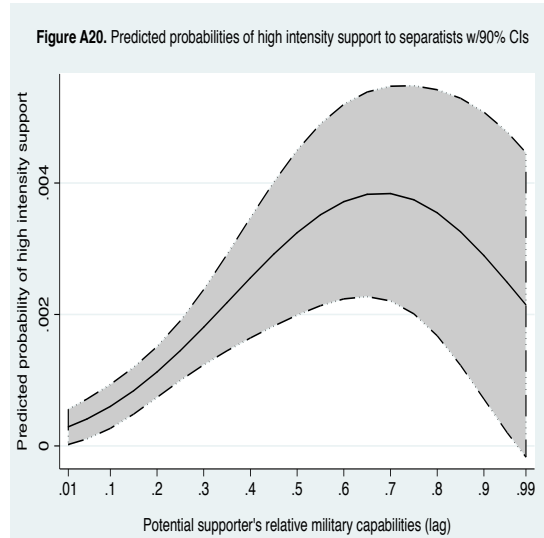
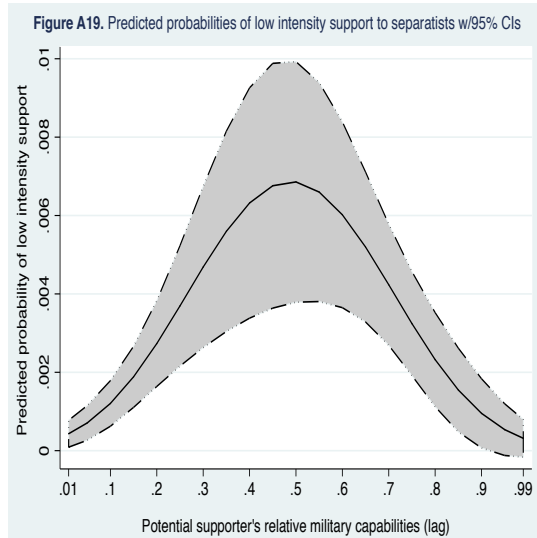
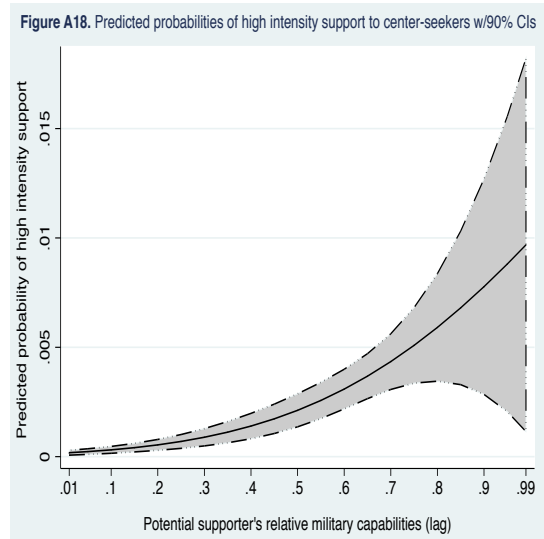
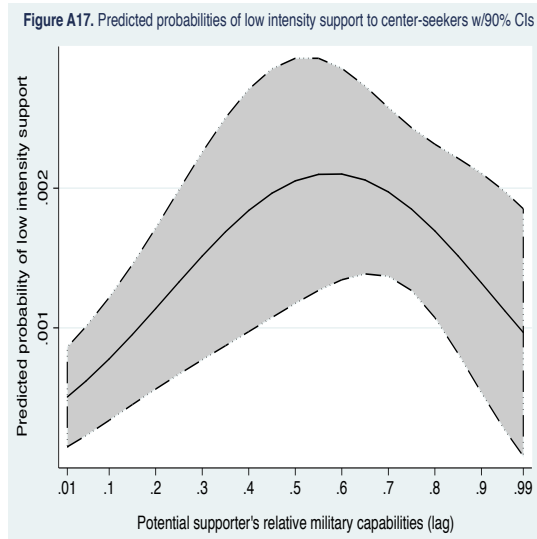
Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.



The figures above demonstrate that this article's main results are robust to clustering the standard errors on the rebel group.

Test #5 – Clustering standard errors on the rebel group’s home government

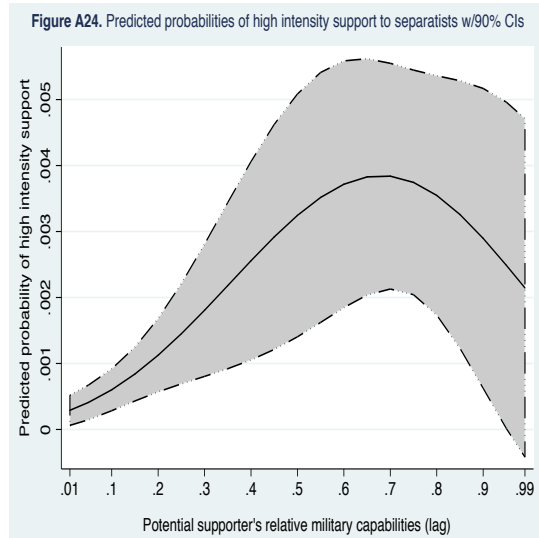
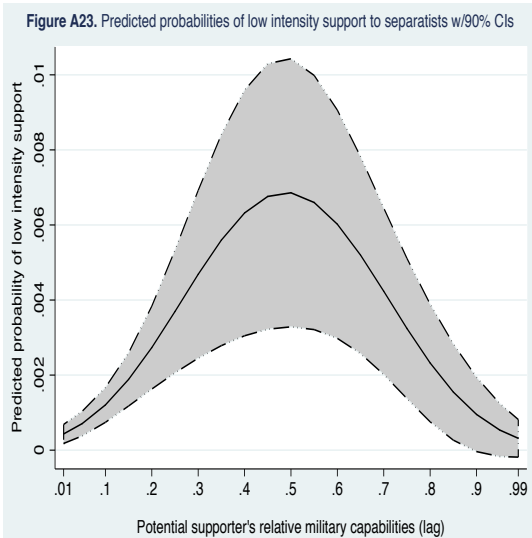
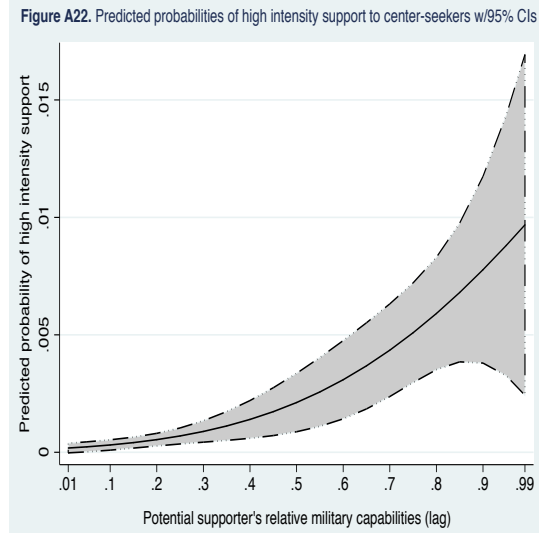
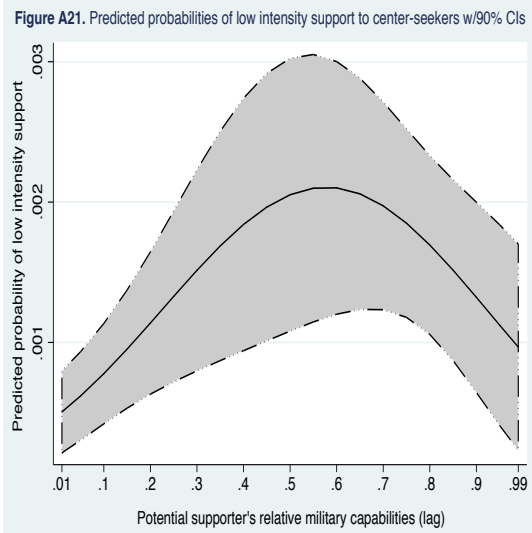
Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.



While statistical significance is reduced in certain ranges of a potential supporter’s relative military capabilities, the figures above demonstrate that this article’s main results/conclusions are robust to clustering the standard errors on the rebel group’s home government.

Test #6 – Clustering standard errors on the potential supporter

Refer to the appendix of Siegel (2018b) for discussion of why this test is included as a robustness check.



While statistical significance is reduced in certain ranges of a potential supporter's relative military capabilities, the figures above demonstrate that this article's main results/conclusions are robust to clustering the standard errors on the potential supporter.

Test #7 - Coding weapons support as heavy when evidence does not distinguish weapons as being either light or heavy

At times, secondary sources identify that states provide foreign rebels with weapons, but they do not indicate what type of weapons were provided. In the main article, I argued that because journalists have an incentive to uncover significant stories (i.e. states providing rebels with heavy weapons), if sources indicate weapons support, but do not specify the type of weapons, then the support should be coded as light weapons. However, as a robustness check, it is logical to determine whether coding these instances of support as heavy weapons would undermine this article's conclusions. Therefore, the figures below are based off Model 1 from the main article, except that weapons support is coded as heavy for instances where secondary sources specify that weapons support occurred, but do not specify what type of weapons were provided.

Figure A25. Predicted probabilities of low intensity support to center-seekers w/95% CIs

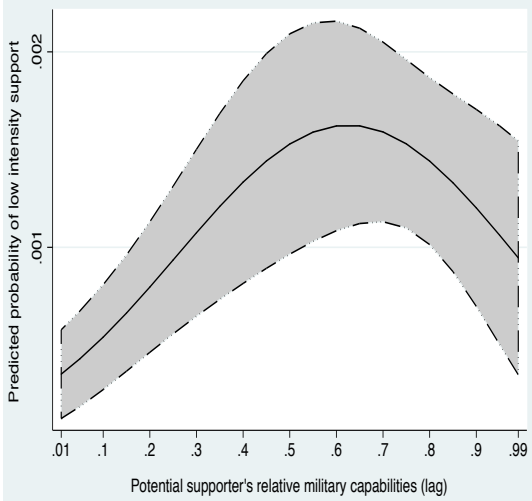
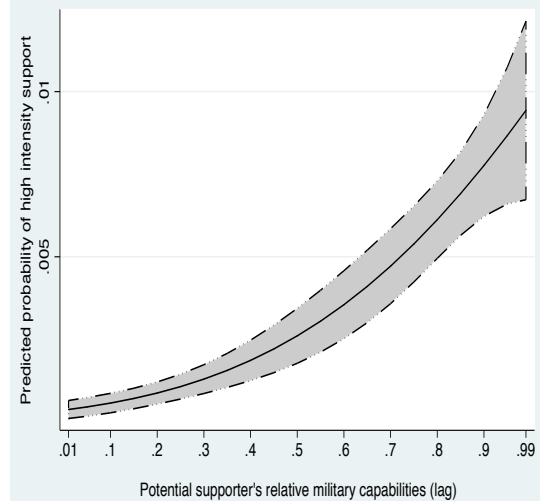
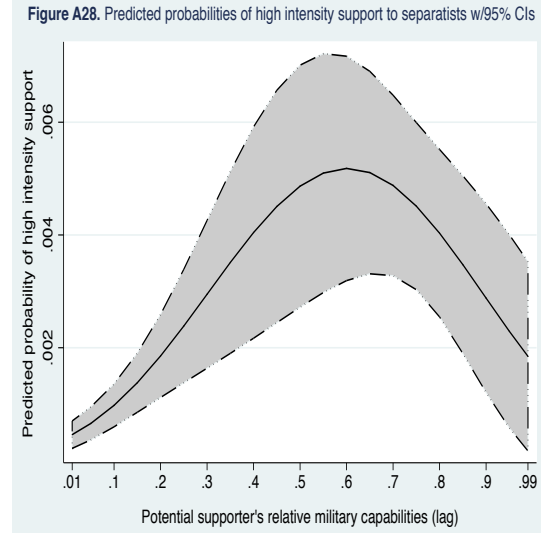
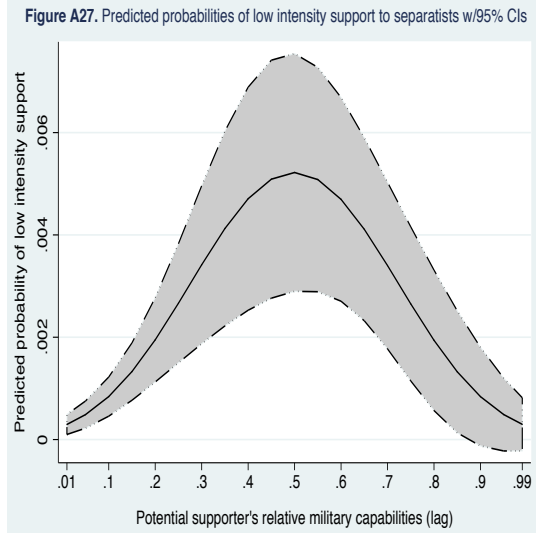


Figure A26. Predicted probabilities of high intensity support to center-seekers w/95% CIs





The figures above demonstrate that this article's main results are robust to coding weapons support as consisting of heavy weapons when sources do not indicate that type of weapons provided.

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# **Paper 3: How Different Types of Rebel Support Impact Civil War Duration**

## **Abstract**

When does state support to foreign rebel groups prolong civil war? Rebel support should lengthen wars when it increases the rebels' expected payoff for fighting. In these situations, support encourages the rebels to fight until they achieve their aims. Separatist rebels often believe they can accomplish their goals by fighting long low intensity wars. Thus, even low intensity types of support, such as funding, will raise separatists' expected value for fighting if they think the assistance will persist. Separatists expect low intensity support to endure when it comes from states that are militarily competitive with their home government. They understand that these states can and must maintain low intensity support for long periods to realize benefits from providing assistance. Empirical analysis confirms that low intensity support significantly prolongs separatist wars when supporters are militarily competitive with the rebels' home government. Unlike separatists, rebels seeking government overthrow (center-seekers) must fight intense wars to achieve their goals. Consequently, large magnitudes of high intensity support, such as heavy weapons, are required for external assistance to improve center-seekers' expected payoff from fighting. Only states that are militarily stronger than the center-seekers' home government can provide such support. Therefore, I argue and find that only high

intensity support can prolong center-seeking wars, and that it only does so when supporters are militarily stronger than the rebels' home government. This article demonstrates that a rebel group's goals, the type of support it receives, and the military capabilities of its supporter, jointly determine whether rebel support prolongs civil war.

## **Introduction**

Scholars have found that civil wars last longer when rebels receive support from foreign states (Balch-Lindsay & Enterline, 2000; Sawyer, Cunningham, & Reed, 2017). However, the existing studies assume that all supporters are equally capable of prolonging civil wars. Support patterns to two Angolan rebel groups cast doubt on this assumption.

In 1975, two rebel groups, FNLA and UNITA, both began fighting to overthrow the Angolan government. I refer to rebels seeking overthrow as "center-seekers." From 1976 through 1979, FNLA received weapons and training from Zaire (Hogbladh, Pettersson, & Themner, 2011). During this period, Zaire was FNLA's only supporter. Despite the Zairian support, FNLA's conflict ended in 1979 (Kreutz, 2010).

By the end of 1978, UNITA was receiving weapons and training from South Africa, yet it had no other supporters. South Africa continued to support UNITA through 1988. Unlike FNLA, UNITA was able to continue its war throughout the

1980s. Why did South African support enable UNITA to continue its fight through the 1980s, while Zairian support to FNLA did not?

I argue that rebel support is more likely to prolong wars when it significantly raises the rebels' expected payoff for fighting the types of wars required for them to accomplish their goals. To achieve their goals of regime overthrow, center-seekers normally must fight intense conventional battles<sup>53</sup> against militarily stronger opponents. Consequently, when states support center-seekers, their immediate sponsorship objective is generally to prevent the rebels from being quickly defeated by their stronger adversary. After preventing rapid defeats, states may continue to support center-seekers with the objective of eventually facilitating rebel victories.<sup>54</sup> To prevent center-seeker defeats and potentially enable rebel victories, supporters often must provide large quantities of support. States can do this more easily when they are militarily stronger than the center-seekers' home government (Siegel, 2018a; 2018b). Hence, support can significantly raise center-seekers' expected payoff from fighting, but it is only likely to do so when it comes from militarily strong states. Thus, rebel support should only prolong center-seeking wars when supporters are stronger than the center-seekers' home government. In 1979, South Africa was militarily stronger than the Angolan government, while Zaire was militarily weaker (Singer, 1987). This disparity suggests that militarily stronger supporters are more

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<sup>53</sup> Conventional battles involve direct rebel-to-state combat with front lines. This contrasts with situations where rebels conduct mainly guerrilla tactics.

<sup>54</sup> States may also support center-seekers with the objective of eventually promising to revoke support in exchange for concessions from the rebels' home government. See theory section and Siegel (2018a; 2018b).

likely to prolong center-seeking wars by providing rebel support. Statistical analysis confirms that rebel support prolongs center-seeking wars, but only when supporters are militarily stronger than the rebels' home government.

The existing research on rebel support and war duration pools center-seeking wars with those where rebels have separatist goals (Regan, 2002; Sawyer, Cunningham, & Reed, 2017). This is surprising, given that center-seekers and separatists normally fight different types of wars. As a result of differing war dynamics, it is logical to evaluate whether some instances of support should prolong separatist wars but not center-seeking ones. In contrast with center-seekers, separatists often seek to achieve their goals of territorial concessions (autonomy, independence) by fighting long low intensity guerrilla conflicts (Siegel, 2018b). Consequently, low intensity types of support, such as funding, are more likely to raise rebels' expected payoffs for fighting if they have separatist goals, rather than center-seeking ambitions.

Unlike center-seekers, separatists rarely attempt to quickly inflict significant damage, as they need not do so to accomplish their goals. Therefore, states do not expect that providing low intensity support to separatists would enable rebel victories. Additionally, since separatist wars are less intense than center-seeking conflicts, separatists' supporters rarely need to have an explicit sponsorship objective of preventing rapid rebel defeats. However, by providing long-term low intensity support to separatists, states can eventually force the rebels' home government to

consume additional military resources fighting its separatists. Therefore, I argue that states provide low intensity support to separatists in order to gradually improve their interstate coercive military power over the rebels' home government (Siegel, 2018a; 2018b).

Throughout the 1980s, Algeria enabled Moroccan separatists to inflict additional damage by providing them with low intensity support (Hogbladh, Pettersson, & Themner, 2011). During this decade, Algeria and Morocco had similar military capabilities (Singer, 1987). Since separatists expect to fight long guerrilla wars, the Moroccan rebels estimated that sustained low intensity support would improve their payoff for long-term fighting. The separatists likely expected Algerian support to persist because Algeria would have to provide long-term support to gain meaningful coercive power over militarily competitive Morocco. Thus, the prospects for lasting support motivated the rebels to prefer violence to compromise, as they expected enduring assistance would continue to raise their payoff from long-term fighting. Consequently, this provision of rebel support likely played a meaningful role in prolonging the war.

In contrast with militarily competitive situations, separatists anticipate that militarily weak states cannot provide them with low intensity support for long periods. Long-term support is unlikely because the separatists' home government can retaliate against a weaker supporter, in order to compel it to end support. Thus, low intensity support from militarily weak states should not prolong separatist wars.

Finally, states have the greatest capacity to provide long-term support to separatists when they are militarily stronger than the rebels' home government (Siegel, 2018a; 2018b). However, these states need not provide extended low intensity support in order to retain their coercive advantages over weaker states. Hence, strong states have minimal incentive to provide separatists with low intensity support for long periods. Consequently, separatists will not expect that such support would significantly raise their payoff for long-term fighting. Thus, when separatists receive low intensity support from militarily strong states, such assistance should not significantly prolong their wars. Empirical analysis confirms that low intensity support only prolongs separatist wars when supporters are militarily competitive with the rebels' home government. Therefore, this study shows that a rebel group's goals, the type of support it receives, and the military capabilities of its supporter, jointly determine whether rebel support prolongs civil war.

The remainder of this article proceeds as follows. *First*, I review the literature on civil war duration. *Second*, I provide a novel theory explaining when rebel support prolongs war. *Third*, I describe the strategy for testing my theory's predictions. Since it is unlikely that rebel support is randomly assigned, I utilize coarsened exact matching (Iacus, King, & Porro, 2012) to identify a sample for statistical analysis. By evaluating observations that are similar on all variables, except that some observations receive the "treatment" of rebel support, this method leads to more reliable estimates of causal effects. *Fourth*, I present and discuss my results. *Fifth*, I provide concluding remarks.



## **What factors influence the duration of civil war?**

Researchers have found that certain country-level factors are associated with longer civil wars. Collier, Hoeffler, and Soderbom (2004) find that civil wars last longer in countries with low per capita income and high inequality. The opportunity costs to rebels of fighting long wars are lower in poorer countries. Low costs incentivize rebels to prefer fighting to compromise and this leads to longer wars. Relatedly, rebels operating in highly unequal countries assume that fighting until victory could lead them to the riches at the top of society. Thus, higher inequality generates longer wars (Collier, Hoeffler, & Soderbom, 2004). Academics also find that civil wars occurring in democracies last longer than those in non-democracies (Buhaug, Gates, & Lujala, 2009; Cunningham, Gleditsch, & Salehyan, 2009; Wucherpfennig et al., 2012). However, these scholars provide minimal explanation for why this occurs, as regime type is only included as a control variable.

In addition to country-level factors, researchers have found that certain sub-national geographic features are correlated with prolonged civil wars. Rebel territorial control makes it tougher for governments to eliminate the rebels. However, when the territory is in the periphery (as it frequently is), the rebels cannot defeat the government or pressure it into a negotiated settlement. Consequently, wars last longer when rebels control peripheral territory (Cunningham, Gleditsch, & Salehyan, 2009). Furthermore, Lujala (2010) finds that civil wars are longer when there are hydrocarbons and/or gemstones in the conflict zone. If rebels have access to these resources, they can extract and sell them to fund their wars. Therefore, lootable

resources in the conflict area increase war duration. Civil wars also last longer when the fighting takes place far from the capital and/or near international borders (Buhaug, Gates, & Lujala, 2009). These geographic factors reduce the state's capacity to fully neutralize the rebels, which leads to longer wars.

Scholarship also shows that intervention by external states significantly influences the prospects of civil war termination (Balch-Lindsay & Enterline, 2000; Balch-Lindsay, Enterline, & Joyce, 2008; Cunningham, 2006, 2010; Regan, 2002; Sawyer, Cunningham, & Reed, 2017; Walter, 1997). Balch-Lindsay and Enterline (2000) find that civil wars last longer when states provide military support to the rebels, the government, or both. Cunningham (2006) shows that civil wars are longer when there are more "veto players," or civil war combatants that can block negotiated settlements. External states that provide troops to fight alongside either the rebels or government qualify as veto players. Increasing the number of veto players reduces the number of settlements that all parties would accept. In subsequent research, Cunningham (2010) argues that external state interventions are more likely to lengthen civil wars when the intervenor has an agenda that is independent of aiding either the rebels or government. These intervenors have incentive to continue fighting until they achieve their objectives. Therefore, these interventions can prolong conflict even when the rebels and government could compromise. While the research above is valuable, there remain important areas to consider when evaluating how external support influences civil war duration. In addition to providing troops to fight with rebels, states frequently provide them with weapons, training, funding, etc. In fact,

these types of support are all significantly more common than troop support (Hogbladh, Pettersson, & Themner, 2011).

However, only one study examines how different types of support have differing impacts on civil war duration. Sawyer, Cunningham, and Reed (2017) argue that rebel support is more likely to lengthen civil wars when it is highly fungible. These authors posit that funding and weapons are both highly fungible and they find that these are the only types of rebel support that significantly lengthen wars. They argue that these support types create the most uncertainty for the government as to how much the assistance raises the rebels' expected payoff from fighting. This makes war settlement tougher because the government is unsure how much to offer the rebels. Yet, others argue that uncertainty arising from information asymmetries provides a weak explanation for prolonged war. For example, combatants normally obtain accurate understandings of an opponent's capabilities and resolve after a few years of fighting (Fearon, 2004; Powell, 2006). These scholars argue that warring parties anticipating increases in their capabilities cannot credibly commit to current settlements because of their rising future bargaining leverage. They contend that these commitment problems are what cause wars to endure for long periods. While Sawyer, Cunningham, and Reed's (2017) informational theory of rebel support and war duration is novel and well-crafted, their work leaves fruitful avenues for future research.

For example, despite a few examples to the contrary, rebels should generally use weapons to fight against the government. Thus, it seems unlikely that weapons support would normally create great uncertainty for the government as to how the assistance impacts the rebels' expected value for fighting. Consequently, weapons support may prolong civil wars through a mechanism that is different than the one advanced by Sawyer, Cunningham, and Reed (2017). Furthermore, when states provide rebel support (i.e. weapons, training), the supporter's military capabilities should impact their incentive and ability to prolong the war via support. Finally, separatists and center-seekers fight different types of wars. Thus, it is logical to examine whether different types of rebel support are required to prolong these unique types of wars. Existing studies fail to examine how these facets of rebel support impact war duration. Therefore, the analysis below fills in these gaps.

## **Theory**

This article explains when state support to foreign rebels reduces the odds of civil war ending in a given year. I argue that support is most likely to prolong wars when it significantly raises the rebels' expected payoff for prosecuting the types and lengths of wars they anticipate having to fight to achieve their goals. To grasp when rebel support is most likely to raise this expected payoff, it is useful to examine what states hope to achieve by supporting either separatists or center-seekers.

To achieve their goals of government overthrow, center-seekers must rapidly inflict significant damage in intense conventional battles against their militarily stronger adversary. Consequently, potential supporters expect that failing to provide center-seekers with significant support could lead to the rebels being quickly defeated. Thus, states' initial objectives in supporting center-seekers should be to provide sufficient assistance to prevent rapid center-seeker defeats. However, I argue that states also have subsequent objectives in supporting center-seekers. Since center-seekers often attempt to inflict substantial damage, supporters may seek to provide them with enough assistance to facilitate rebel victories. Alternatively, states may attempt to use support to center-seekers as a "bargaining chip," by providing it for a period and then promising to revoke it in exchange for concessions from the rebels' home government (Siegel, 2018a; 2018b). Both center-seekers and their potential supporters will generally expect that support would have to endure for a significant period in order for the supporter to accomplish either of these two objectives. Furthermore, unless center-seekers believe that their supporters can meaningfully improve their performance in intense conventional battles, then external support will not significantly increase their expected payoff for future fighting.

Unlike center-seekers, separatists can achieve their goals of greater autonomy/independence by fighting long low intensity wars. Since separatists are less likely to place significant military pressure on their governments, supporters

understand that assisting separatists is less likely to facilitate rebel victories.<sup>55</sup> Additionally, many states will frequently anticipate that it would be difficult to successfully use support to separatists as a bargaining chip. Furthermore, because separatist conflicts are less intense than center-seeking ones, separatists' supporters rarely need to have an explicit sponsorship goal of preventing quick separatist defeats. However, potential supporters will anticipate that long-term support to separatists could eventually force the rebels' home government to consume significant additional amounts of their military resources fighting the rebels. Thus, I argue that states' primary objectives in supporting separatists are to gradually improve their interstate coercive military power over the rebels' home government. In some instances, states will support separatists with the secondary objective of eventually using support as a bargaining chip to obtain concessions (Siegel, 2018a; 2018b). Yet, supporters have better chances of using support to center-seekers to obtain concessions. From 1945-2001, only 32% of the successful uses of support as a bargaining chip occurred via support to separatists (Melandner, Pettersson, & Themner, 2016; Schultz, 2010).

When rebels evaluate whether support will substantially raise their payoff for future fighting, they must consider whether the supporter believes long-term support would enable it to accomplish its sponsorship objective. Rebels understand that a supporter's military capabilities, as well as the type of support it provides, will each

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<sup>55</sup> From 1975-2009, separatists won only 2% of their wars, while center-seekers won 14% (Kreutz, 2010).

play a role in determining whether the supporter expects that long-term support will enable it to accomplish its sponsorship goals.

I define different types of rebel support as either high or low intensity. If rebels receive both high and low intensity support, the support they receive qualifies as high intensity. Support qualifies as high intensity if it is likely to considerably improve rebels' performance in intense conventional battles that involve direct combat with front lines. High intensity support includes combat troops, heavy weapons, military training, and joint operations. Low intensity support includes funding, light weapons, materiel/logistics, intelligence materials, and access to territory.<sup>56</sup>

If support meaningfully increases a rebel group's expected value from fighting, it can lengthen its war through two mechanisms. First, these instances of support can prolong wars by inhibiting negotiated settlements. If support significantly increases the rebels' payoff for fighting the length/type of war they anticipate, then they cannot credibly commit to a deal that both sides would prefer to continued violence. In these situations, it is rational for the government to attempt to eliminate the rebels before support enables them to improve their bargaining leverage and make greater future demands. Under these commitment-problem scenarios, war can continue even if there is complete information about the bargaining range (Fearon, 1995; Powell, 2006). This occurs because the government cannot trust rebels to abide

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<sup>56</sup> See research design and Siegel (2018a) for additional discussion.

by deals that would prevent inefficient war continuation. Commitment-based explanations for war often require a large and rapid power shift to generate inefficient fighting (Bell & Johnson, 2015; Fearon, 1995; Powell, 2006). However, these arguments generally occur in the context of interstate wars, which participants and observers normally expect to be shorter than civil wars. Thus, if rebels calculate that support will significantly increase their *cumulative long-term* payoffs for fighting, such support can prevent negotiated settlements even if this increase is expected to be gradual. Amplifying this expected payoff motivates the rebels to fight until support can empower them to pressure the government into a more favorable settlement. Therefore, even if rebels' anticipate that support will only gradually increase the amount of damage they can inflict, such support can still lengthen their wars by delaying negotiated settlements.

In addition to discouraging negotiated settlements, rebel support can prolong wars simply by making it easier for rebels to avoid defeats, ceasefire terminations, and low activity outcomes. Since rebels are usually militarily weaker than their governments, many civil wars end in these outcomes.<sup>57</sup> When external support raises rebels' expected value for fighting, the (usually stronger) government has incentive to quickly eliminate them before the support significantly increases the rebels' capabilities. However, if support raises rebels' expected payoff for future fighting, it will also enhance their current capabilities to avoid defeats, and ceasefire/low activity terminations.

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<sup>57</sup> These outcomes account for 89% of separatist war terminations between 1975 and 2009 and 68% of center-seeking terminations (Kreutz, 2010).



Below, I explain why a rebel group's goals, the military capabilities of its supporter, and the intensity of support it receives are all relevant to understanding whether rebel support is likely to prolong civil war.

### When does low intensity support prolong civil war?

#### *Separatists and low intensity support*

To achieve their goals, separatists may only need to convince their government that granting autonomy/independence is preferable to continually fighting a long guerrilla war in a peripheral region. Consequently, separatists rarely attempt to quickly inflict significant damage by concentrating large numbers of forces (Siegel, 2018b). Since separatists anticipate long fights, support increases their expected value from fighting more when they expect it to endure. As they often plan to fight low intensity wars, even low intensity support can meaningfully raise separatists' expected payoff from conflict, so long as they expect it to persist. Separatist rebels are most likely to calculate that low intensity support will persist when their supporters are militarily competitive with their home governments. Persistent low intensity support can eventually enable the separatists to inflict enough additional damage to provide the supporter with a coercive military advantage over the rebels' home government (Siegel, 2018a; 2018b). However, militarily competitive supporters must provide such support for long periods to achieve this objective. Therefore, separatists receiving low intensity support from militarily competitive

states should prefer fighting to compromise, as they expect that persistent support will enable them to improve their future bargaining leverage. Hence, when separatists receive low intensity support from states that are militarily competitive with their home governments, this should significantly prolong their wars.

Compared to militarily weak states, competitive supporters have greater capacities to provide separatists with larger magnitudes of low intensity support (Siegel, 2018a). They should also be more likely to provide separatists with access to territory than militarily weak states. Foreign shelter can substantially improve rebels' fighting effectiveness (Salehyan, 2009). Yet, hosting rebels increases the odds of militarized disputes between the supporter and the rebels' home government (Salehyan, 2008). Therefore, militarily competitive supporters are more likely to continually host foreign separatists, as they have less reason than militarily weak states to fear that potential retaliation for hosting would be devastating.

When supporters are militarily stronger than separatists' home governments, they can more easily afford to provide the rebels with low intensity support. Nevertheless, they may lack the incentive to provide such assistance. Strong states need not provide separatists with long-term low intensity support merely to retain their military advantages over weaker governments (Siegel, 2018a).

However, strong states may have the objective of using support to separatists as a bargaining chip. Yet, they are more likely to successfully use assistance to

separatists as a bargaining chip when they provide high intensity support (Siegel, 2018a). For instance, in 1974, Iran sent its troop to fight with Iraqi separatists (Hoagland, 1975; Hogbladh, Pettersson, & Themner, 2011). In 1974, Iran had 74% of the military capabilities in the Iran-Iraq dyad (Singer, 1987). In March of 1975, Iran agreed to withdraw its troop support for the Iraqi separatists in exchange for control of half of the disputed Shatt al-Arab waterway (Schultz, 2010). It seems unlikely that Iran would have been able to obtain this concession, had it only provided the separatists with low intensity support. Consequently, this case suggests that separatists receiving solely low intensity support from strong states should not expect it to persist. This expectation is derived from the fact that low intensity support, provided over a long time horizon, is unlikely to be useful at enabling strong states to accomplish a clear, logical sponsorship objective. Therefore, low intensity support should only significantly prolong separatist wars when supporters are militarily competitive with the rebels' home government.

#### *Center-seekers and low intensity support*

In contrast to separatists, center-seekers often concentrate large numbers of forces in order to fight intense conventional battles (Siegel, 2018b). They do so because they must inflict significant damage to achieve their goals of government overthrow. Therefore, for external support to substantially increase center-seekers' expected payoffs from fighting, the assistance must enable them to perform meaningfully better in intense conventional combat. Government soldiers are

normally well trained for conventional battles and governments generally have significant advantages over center-seekers in terms of conventional weaponry. Consequently, the types of support that would help center-seekers the most are military training, heavy weapons, and conventionally trained combat troops (Siegel, 2018a). Since these are all types of high intensity support, it is unlikely that low intensity support would significantly improve center-seekers expected value for fighting the types of wars they anticipate.

Even if center-seekers receive large quantities of low intensity support from states that are militarily stronger than their home governments, this is unlikely to considerably increase their expected payoff for fighting. Such center-seekers understand that militarily strong states have the greatest capacity to provide the high intensity support that could meaningfully improve their prospects. When strong states are unwilling to provide such assistance, the rebels will recognize that their supporters may not be committed to enabling their success. Furthermore, even if militarily strong states provide center-seekers with large quantities of light weapons,<sup>58</sup> this may not prevent government tanks and aircraft from inflicting massive damage on large numbers of center-seekers' concentrated forces (Siegel, 2018a). This suggests that even militarily strong states might not be able to significantly raise center-seekers expected payoffs for fighting by providing them with solely low intensity support. Consequently, I expect that low intensity support will never significantly prolong center-seeking wars.

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<sup>58</sup> And/or other types of low intensity support.

Therefore, the analysis above leads to the following hypothesis.

**H1:** Low intensity support to rebels only prolongs civil wars when rebels have separatist goals. However, this effect only occurs when the supporter is militarily competitive with the separatists' home government.

### When does high intensity support prolong civil war?

#### *Center-seekers and high intensity support*

Since center-seekers often attempt to quickly inflict significant damage, militarily strong states can obtain significant benefits by providing these rebels with high intensity support. Strong states may believe that prolonged episodes of such support could eventually facilitate center-seeker victories. In contrast, separatists are less likely to fight intense battles, and to attempt to take the capital city. Therefore, militarily strong supporters are less likely to expect that providing extended high intensity support to separatists would lead to rebel victories. Hence, militarily stronger potential supporters normally have greater incentive to provide high intensity support to center-seekers (Siegel, 2018a).

As discussed above, high intensity support can significantly raise center-seekers' expected payoffs for future fighting. However, recall that center-seekers frequently expect to fight intense conventional battles against militarily stronger

opponents. This suggests that some instances of high intensity support may not substantially increase the rebels' expected value for conflict. Yet, if high intensity support is considerable in magnitude and likely to endure then it should significantly improve center-seekers' expected payoffs for fighting. High intensity support is most likely to meet these criteria when the supporter is militarily stronger than the center-seekers' home government.

Unlike separatists, center-seekers often operate near the capital and in the interior of the country (Buhaug & Rod, 2006) where their governments can easily monitor them. Thus, in order to provide center-seekers with continual high intensity support in country, states must risk exposing their military personnel to the army of the center-seekers' home government. Supporters will be more willing to take these risks when they are militarily stronger than the center-seekers' home government. When states have powerful militaries, they are less likely to worry that being caught providing rebel support would lead to costly retaliation. Supporters also have greater capacities to provide larger magnitudes of high intensity support when they have stronger militaries (Siegel, 2018a). Consequently, high intensity support is more likely to raise center-seekers' expected value for fighting the types of wars they anticipate<sup>59</sup> when their supporters are militarily stronger. Therefore, when militarily strong states provide center-seekers with high intensity support, this can lengthen their civil wars in two ways. First, the rebels will be less likely to accept and comply

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<sup>59</sup> Center-seekers anticipate fighting wars with intense conventional battles located in the interior of the country where the government has significant military and monitoring resources.

with peace agreements. Second, the rebels are less likely to experience military defeats and ceasefires/low activity terminations.<sup>60</sup> The two cases discussed below suggest that high intensity support is more likely to prolong center-seeking wars when the supporter is militarily stronger than the rebels' home government.

Shortly after the United States military withdrew from Iraq in 1991, the Supreme Council for the Islamic Revolution in Iraq (SCIRI) resumed its center-seeking war against the Iraqi government.<sup>61</sup> Upon resumption, Iran provided SCIRI with high intensity support<sup>62</sup> through the duration of its renewed fighting, which ended in 1996 (Hogbladh, Pettersson, & Themner, 2011; Melander, Pettersson, & Themner, 2016). From 1991 through 1996, Iran was militarily competitive with Iraq, as it held an average of 44% of the dyadic military capabilities (Singer, 1987). Iranian support helped SCIRI launch significant attacks on government facilities in Nassariya, Basra, and other cities in southern Iraq (Uppsala Universitet (Iraq), 2018). However, in 1996, SCIRI's war ended, as it was no longer capable of generating 25 annual battle deaths. SCIRI was unable to continue its fight despite the fact that it was still receiving heavy weapons and training from Iran. From 1991 through 1996, Iran and Iraq were bitter adversaries and Iran had every incentive to enable SCIRI to continue its war. However, Iran was not militarily stronger than Iraq, and this likely

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<sup>60</sup> While high intensity support from militarily strong states should make center-seeker victories more likely, such support should still prolong center-seeking wars. Even when center-seekers receive these instances of support, rebel victories will not generally come quickly, because governments normally have initial military advantages over their rebels.

<sup>61</sup> The only other years with active fighting were 1982-1984 and 1987 (Melander, Pettersson, & Themner, 2016).

<sup>62</sup> Military training and heavy weapons (tanks, etc.) (Reuters, 1991).

contributed to its reluctance to send combat troops to fight alongside SCIRI. If Iran were militarily stronger than Iraq, it would have been more likely to provide SCIRI with troops, which should have enabled the rebels to continue their war. This case suggests that high intensity support may be insufficient to significantly prolong center-seeking wars when the supporter is not militarily stronger than the rebels' home government.

Unlike the case of SCIRI, when center-seekers receive high intensity support from militarily stronger states, this should significantly prolong their wars. For instance, the KPNLF, a Cambodian center-seeking group, received heavy weapons and/or training from states that were militarily stronger than Cambodia from 1979 through 1990 (Hogbladh, Pettersson, & Themner, 2011; Singer, 1987).<sup>63</sup> Evidence strongly suggests that high intensity support from militarily strong states was what caused the KPNLF to prefer continued fighting to negotiated settlement. In 1990, China and the US were the KPNLF's only supporters and during this year they both stopped supporting the rebels.<sup>64</sup> Shortly after losing this support the KPNLF ceased its fight and signed a multi-party peace agreement in 1991 (Uppsala Universitet (Cambodia), 2018). This case suggests that when center-seekers receive high intensity support from militarily strong states, this can increase their expected payoff for continued conflict enough for them to prefer fighting to compromise. The speed in

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<sup>63</sup> The USSR provided heavy weapons in 1979. The KPNLF did not receive any support in 1980. China provided heavy weapons from 1981 through 1990. The USSR had over 99% of the military capabilities in the USSR-Cambodia dyad and the same was true for China (Singer, 1987).

<sup>64</sup> China and the US were both previously providing KPNLF with heavy weapons.



which the loss of support resulted in war termination demonstrates that high intensity support from militarily strong states can have a powerful effect in prolonging center-seeking conflicts.

Therefore, the analysis above leads to the following hypothesis.

**H2A:** High intensity support prolongs center-seeking wars. However, this effect only occurs when the supporter is militarily stronger than the center-seekers' home government.

#### *Separatists and high intensity support*

Recall that separatists often anticipate having to fight long wars in order to secure their desired territorial concessions in a war-ending peace agreement. Thus, if they anticipate that high intensity support would enable them to endure long fights to secure concessions, it should significantly raise their expected payoffs for future fighting. However, high intensity support should only meaningfully improve separatists' expected value for fighting if it is likely to endure.

When separatists' high intensity supporters are not militarily weaker than the rebels' home government, the rebels will expect that their supporters have the incentive and capability to make it worthwhile to continue a long war. States with stronger militaries can provide separatists with greater quantities of heavy weapons.

They can also dedicate more resources to providing separatists with the training required to conduct more effective attacks (Siegel, 2018a). While high intensity support is generally required to significantly improve rebels' performance in conventional battles, it can also meaningfully improve their abilities to maintain effective guerrilla wars. For instance, if separatists receive significant quantities of heavy weapons, they can inflict more damage in hit-and-run attacks. Additionally, these weapons make it easier for separatists to defend the territory from which they operate.

If separatists receive high intensity support from militarily competent states, they should expect the support to endure for a reasonably long period. Unless a supporter is clearly militarily weaker than the rebels' home government, it can defend itself reasonably well against retaliation for providing foreign rebels with high intensity support. Consequently, separatists receiving high intensity support from militarily competent states will not expect that their home government could quickly coerce their supporter to terminate support. Separatists will also anticipate that when these states provide them with high intensity support, they will want to avoid having the assistance become a wasted investment. Hence, separatists receiving such support should expect that their supporters would provide sufficient support for them to make it worthwhile to continue a long war. Therefore, when separatists receive high intensity support from states that are not militarily weaker than their home governments, this should meaningfully increase their expected payoffs for fighting. However, if separatists receive high intensity support from states that are militarily

weaker than their home governments, this assistance will not meaningfully improve their expected value for conflict. These supporters will generally be unable to continuously provide the quantity of high intensity support required to substantially raise the rebels' expected payoff for fighting the long wars they anticipate. Thus, the analysis above leads to the following hypothesis.

**H2B:** High intensity support prolongs separatist wars. However, this effect only occurs when:

- 1) The supporter is militarily stronger than the separatists' home government, or
- 2) The supporter is militarily competitive with the separatists' home government.

Table I below summarizes this article's predictions as to when rebel support significantly lengthens civil wars.

Table I. Does rebel support significantly lengthen civil war (Yes/No)?

	<i>Center-seeking wars</i>		<i>Separatist wars</i>	
	High intensity support	Low intensity support	High intensity support	Low intensity support
Militarily weaker supporter	No	No	No	No
Militarily competitive supporter	No	No	Yes	Yes
Militarily stronger supporter	Yes	No	Yes	No

## Research design

### Unit of analysis and dependent variable

To test my hypotheses, I employ the rebel group–rebel home government-year as the unit of analysis. The analysis period is 1975-2009. To identify rebel groups and their home governments, I utilize the UCDP Conflict Termination Dataset (CTD) (Kreutz, 2010). This dataset provides start and end dates for all civil conflicts where fighting generates at least 25 annual battle deaths.<sup>65</sup> Since I argue that rebel support has a different impact on the duration of center-seeking and separatist wars, I analyze one sample for separatists and another for center-seekers. Fortunately, the CTD identify each rebel group as having either separatist or center-seeking goals.<sup>66</sup>

The dependent variable for this article is a binary measure taking the value 1 if a conflict ends in the given year, 0 otherwise. Conflicts end when they generate fewer than 25 annual battle deaths and stay below this threshold for an additional two years. If a conflict terminates and later restarts, I code this as a new conflict.

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<sup>65</sup> Conflicts can end in peace agreements, ceasefires, government victories, rebel victories, or low activity terminations.

<sup>66</sup> The procedures that the CTD uses to identify rebel goals are identical to those in Melander, Pettersson, & Themner (2016). Therefore, the CTD data on rebel goals are identical to those in Melander, Pettersson, & Themner (2016). See Siegel (2018b) for additional discussion of the data for rebel groups' goals.

## Independent variables

I argue that the impact of rebel support on civil war duration is influenced by both the supporter's military capabilities and the intensity of support it provides. In order to assess whether my arguments are supported, I must create individual variables that capture both of these elements. I utilize the UCDP External Support dataset (Hogbladh, Pettersson, & Themner, 2011) to identify the intensity of support that rebels receive. High intensity support consists of combat troops, heavy weapons, military training, or assistance in conducting joint operations. If a state provides rebels with any of these types of support in a given year, then that state is considered a high intensity supporter. Low intensity support consists of funding, light weapons, materiel/logistics, intelligence materials, and access to territory.<sup>67</sup> States only qualify as low intensity supporters if they provide rebels with at least one of these types of support, but do not provide them with any high intensity support.

After identifying whether a supporter provided low or high intensity support, I determine whether they were militarily competitive with the rebel group's home government, or whether they were weaker or stronger. To measure a supporter's relative military capabilities, I use ratio below to compare a supporter's military personnel and expenditures to those of the rebels' home government (Singer, 1987). After incorporating the lags and averages for personnel expenditures described in

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<sup>67</sup> Siegel (2018a) provides the rationale for classifying specific types of support as high or low intensity.

(Siegel, 2018b), I use the following ratio to assess a potential supporter's relative military capabilities:

$$\frac{((\text{Potential supporter military personnel} / (\text{Rebel home government military personnel} + \text{Potential supporter military personnel})) / 2) + ((\text{Potential supporter military expenditures} / (\text{Rebel home government military expenditures} + \text{Potential supporter military expenditures})) / 2)}$$

This ratio spans from 0 to 0.99. A value of 0.5 indicates that the supporter and the rebels' home government have equal military capabilities. I categorize supporters as being militarily competitive when their relative capability ratio is between 0.35 and 0.65.<sup>68</sup> Supporters are considered militarily stronger when they have capability ratios above 0.65 and they are considered weaker when they have ratios below 0.35.

After identifying a supporter's relative military capabilities and the intensity of support it provided, I create six dichotomous rebel support variables for the purpose of testing my hypotheses. The variables are 1) *High intensity stronger* 2) *High intensity – competitive* 3) *High intensity – weaker* 4) *Low intensity – stronger* 5) *Low intensity – competitive* 6) *Low intensity – weaker*.<sup>69</sup> To make these variables

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<sup>68</sup> To verify that my results are not dependent on these cut-offs, I also use 0.30 and 0.70 as cut-offs in the appendix. The results are similar with these cut-offs.

<sup>69</sup> There are situations when rebels receive support from more than one of these six categories. However, these six variables are not highly correlated with each other. The highest bivariate correlation among these variables is 0.33 (correlation between

appear concrete, consider the following scenario. Suppose a supporter's relative military capabilities ratio is 0.80 and it provides rebels with heavy weapons. In this situation, the variable *High intensity – stronger* takes the value 1.

### Control variables

Following the advice of Achen (2005), I only control for factors that are plausible confounders between my key independent variables and civil war termination.

*Rebels' relative military capabilities (log)* – States may be more likely to support militarily competent rebels because they anticipate that such rebels could inflict greater damage if they received external assistance (Siegel, 2018b). Furthermore, when rebels are militarily competent, the government will have greater difficulty eliminating them. Additionally, militarily competent rebels have less incentive to accept peace agreements that do not provide them with significant concessions. Consequently, when rebels are militarily competent, civil wars may be less likely to end. Therefore, I include the following control variable: *Rebels' relative military capabilities (log)* =  $\text{Number of Rebel Soldiers} / (\text{Number of Rebel Soldiers} + \text{Number of Rebel Home Government Soldiers})$ . The data for numbers of rebel

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*High intensity – weaker* and *High intensity – competitive* for center-seekers). Most of the bivariate correlations between these six variables are far lower. Therefore, multicollinearity is not an issue for these variables. Furthermore, the highest bivariate correlation in this article's models is only 0.38 (excluding the temporal dependence controls, which are correlated by definition).

soldiers come from Cunningham, Gleditsch, and Salehyan (2013), and the data for numbers of government soldiers come from Singer (1987). To reduce the influence of outliers where rebel groups are extremely strong, I take the natural log of this variable.

*Rebel territorial control* – Rebel control of territory is correlated with both longer civil wars (Cunningham, Gleditsch, & Salehyan, 2009) and greater probabilities of rebels receiving external support (Salehyan, Gleditsch, & Cunningham, 2011). Therefore, I include a control variable that takes the value “1” if the rebels control internal territory and “0” if they do not (Cunningham, Gleditsch, & Salehyan, 2013).

*Government support* – Research indicates that state support to governments experiencing civil war is correlated with both rebel support (Salehyan, Gleditsch, & Cunningham, 2011) and increased war duration (Balch-Lindsay & Enterline, 2000). Therefore, I include a variable that takes the value 1 if the government received any support from a foreign state in the given year, 0 otherwise (Hogbladh, Pettersson, & Themner, 2011).

*Time, Time<sup>2</sup>, Time<sup>3</sup>* – These variables count the number of years that a civil war has endured up through the current year. They are included to control for temporal dependence, as suggested by Carter and Signorino (2010).



## Method

When researchers run standard statistical models on unmodified datasets, they assume that the independent variables are randomly assigned. However, it is unlikely that rebel support is assigned to a random subset of all civil wars. Failing to correct for non-random assignment might lead me to find spurious support for my hypotheses. For example, unobserved factors could have a causal impact on both the assignment of rebel support and the duration of civil war. If this were true and I used a standard statistical approach, then the estimated impact of rebel support would not be measuring the true causal effect of the support itself. Instead, this estimate would have been biased by the unobserved factor(s) that influence both the assignment of rebel support and the duration of civil war.

One way to correct for non-random assignment is to employ an instrumental variable approach.<sup>70</sup> This approach requires identifying a variable that is 1) correlated with rebel support and 2) uncorrelated with unobservable factors affecting civil war termination. Said differently, the instrument should impact termination, but it should only do so through its association with rebel support. Instruments that meet criteria 1) and 2) above are difficult to identify. Sawyer, Cunningham, and Reed (2017) is the only study that identifies an instrument for rebel support when the dependent variable is civil war termination. They use the yearly average GDP<sup>71</sup> of the three main financial aid donors (*Donor GDP*) in the Organization for Economic Cooperation and

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<sup>70</sup> See Sawyer, Cunningham, and Reed (2017).

<sup>71</sup> In logged millions of dollars.

Development as an instrument for rebel financial support. These authors find that *Donor GDP* meets both criteria for a valid instrument.<sup>72</sup> While it is plausible that there is an underlying theoretical reason for why *Donor GDP* and rebel financial support are statistically correlated, this logic is not directly applicable to high intensity support/rebel support aside from funding (i.e. military training). Consequently, for this article's purposes, *Donor GDP* does not represent a plausible instrument. After careful consideration, I was able to identify only one other potentially plausible instrument: interstate rivalry (Thompson, 2001).<sup>73</sup> However, this variable did not meet both of the criteria above for a valid instrument.<sup>74</sup> Therefore, instead of using an instrumental variable analysis, I opted to utilize matching to correct for the non-random assignment of rebel support.

The objective of matching is to remove observations from the dataset so that the control variables for the remaining observations have more "balance" between the

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<sup>72</sup> Analysts could reasonably argue that *Donor GDP* is questionable as an instrument. As the authors acknowledge, the Wald test that the instrument is uncorrelated with the disturbance term yields a p-value of .082 in a two-tailed test. This suggests that there is at least some meaningful degree of correlation between the instrument and the error term.

<sup>73</sup> The logic behind evaluating rivalry as an instrument is that if a rebel group's home government has an interstate rival, the rebels should be more likely to receive external support (Salehyan, Gleditsch, and Cunningham, 2011). Furthermore, some researchers would find it plausible to argue that a rivalry should only impact civil war duration via the rival supporting the rebels. However, this is a questionable argument, as civil war governments that also have interstate rivals may have to dedicate large amounts of their military resources and spending toward countering their rival(s). This could make it more difficult to eliminate the rebels, which would lead to longer civil war.

<sup>74</sup> Rivalry was a statistically insignificant predictor of four of the six types of rebel support (i.e. *Low intensity – weaker*, *Low intensity – competitive*, etc.) to center-seekers. It was also statistically insignificant in two of the six types of rebel support to separatists. Therefore, rivalry is not a feasible instrument.

groups that receive the treatment, in this case rebel support, and those that do not. When the data are exactly balanced after matching, the only observed difference between the treatment and control groups is that the observations in the treatment group experience rebel support.<sup>75</sup> If the treatment and control groups are similar on all variables other than the treatment, then the researcher can be more confident that any differential impact between the treatment and control groups is caused by the treatment (Gilligan & Sergenti, 2008). After creating the matched sample, the researcher can run the relevant statistical model on this sample. Even if the matched sample is not exactly balanced, running the relevant model on this sample still reduces bias and model dependence, so long as the researcher includes the variables used in the matching procedure in the final model (Ho, Imai, King, & Stuart, 2007).

There are multiple methods that can be used to create matched samples. I follow the guidance of Iacus, King, and Porro (2012) and utilize coarsened exact matching (CEM). These authors demonstrate that CEM is better at reducing bias, imbalance, variance, and model dependence, when compared to other commonly used matching procedures.<sup>76</sup> CEM uses an algorithm that identifies observations that have variables that are nearly matched, when exact matches are unavailable. Similar to other matching methods, CEM drops unmatched observations. One advantage of

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<sup>75</sup> I match on the treatment of any rebel support, rather than matching six times on each of the six different types of rebel support (i.e. *Low intensity – weaker*, *Low intensity – competitive*, etc.). Matching on each of the individual types was not practical because the matched samples contained insufficient observations for meaningful statistical analysis. Matching on the “overall” assignment of any of the treatments, even when there are multiple treatments identified, is consistent with accepted practice (Beardsley & Lo, 2013).

<sup>76</sup> Propensity scores and other “equal percent bias reducing” matching methods.

CEM is that it allows the researcher to specify how closely related observations must be in order to be matched. This is accomplished by specifying that observations with variable values falling within a particular range, or “bin,” can be considered as matched on the given variable. Specifying ranges for bins is unnecessary with binary variables, as these variables are either “perfectly matched” (i.e. a pair of observations both have the value 1 (or 0) for the variable of interest), or they are not matched (one observation has the value 1 for the variable of interest, while the other has the value 0). The only control variable in this article’s models that is not binary is the continuous measure: *Rebels’ relative military capabilities (log)*. To “coarsen” this variable for matching, I specified five cut-points to divide the variable’s values into six separate equally sized bins. Six bins represents a logical middle ground between fewer bins, which would lead to greater imbalance, and a greater number of bins, which would lead to a better balance, but a reduced sample size.

Since my hypotheses specify different expectations as to how rebel support impacts the termination of center-seeking and separatist wars, I utilize CEM to create one matched sample for separatists and another for center-seekers. In order to assess the effectiveness of the matching procedure, I use the  $L_1$  statistic to measure the amount of multivariate imbalance in the matched and unmatched data (Iacus, King, & Porro, 2012). Lower values for this statistic indicate better balance. For separatists, the  $L_1$  statistic for the unmatched data is 0.54 compared to 0.34 in the matched data. The  $L_1$  statistic for the unmatched data for center-seekers is 0.44 and matching reduces this statistic to 0.27. Therefore, applying CEM improves balance in a

meaningful way for both separatist and center-seeking wars. After generating these two matched samples, I use them to run two logistic models that regress war termination (1 = war terminates in current year; 0 = war continuation) on all of the explanatory variables described above. CEM allows for multiple matches that have identical covariate profiles. Therefore, when I run logistic regression on the matched samples, I weight the observations in relation to the size of their strata (Iacus, King, & Porro, 2012).<sup>77</sup>

## Empirical results

Table II displays the distributions of center-seeking and separatist war terminations in Models 1 and 2 below.

Table II. Distribution of civil war termination by rebel group-year, 1975-2009

	Model 1		Model 2	
	<i>Separatist wars</i>		<i>Center-seeking wars</i>	
	<i>Frequency</i>	<i>Percentage</i>	<i>Frequency</i>	<i>Percentage</i>
War terminates	127	17.3%	185	20.3%
War does not terminate	605	82.7%	725	79.7%
<i>Total</i>	<i>732</i>	<i>100%</i>	<i>910</i>	<i>100%</i>

<sup>77</sup> It is the necessity of weighting that precludes me from running a survival model on the matched samples. Parametric and semi-parametric (Cox) survival models do not allow for weighting. Non-parametric survival models, such as Weibull, require that the weights be constant for each of the observations within an individual rebel group's civil war. Since this is not the case, it is not possible to run a survival model on the samples derived from CEM. The appendix contains a survival model based on the unmatched data.

In order to assess support for my hypotheses, Table III below provides two statistical models. Both models are generated from the data that remain after applying CEM to the originally unmatched data. Model 1 estimates the log odds of separatist war terminating in the given year, while Model 2 provides the same estimates for center-seeking wars. Negative coefficients indicate that a variable reduces the log odds of war termination.

Table III. Regression estimates of civil war termination, 1975-2009

	<i>Model 1</i>	<i>Model 2</i>
	<i>Separatist wars</i>	<i>Center-seeking wars</i>
High intensity - stronger	-1.05* (0.56)	-1.01*** (0.24)
High intensity - competitive	-0.15 (0.50)	-0.09 (0.31)
High intensity - weaker	-0.89 (0.59)	0.04 (0.46)
Low intensity - weaker	-0.59 (0.38)	0.00 (0.26)
Low intensity - competitive	-1.21*** (0.45)	0.08 (0.32)
Low intensity - stronger	0.22 (0.49)	-0.45 (0.37)
Rebels' relative military capabilities (log)	-0.16 (0.11)	0.07 (0.08)
Rebel territorial control	0.74** (0.36)	-0.50** (0.24)
Government support	-0.12 (0.36)	-0.39* (0.23)
Time	-0.70*** (0.17)	-0.21* (0.11)
Time <sup>2</sup>	0.06*** (0.02)	0.01 (0.01)
Time <sup>3</sup>	-0.00*** (0.00)	-0.00 (0.00)
Constant	-0.39 (0.67)	0.41 (0.36)
Observations	732	910

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-rebel home government dyad. Standard errors in parentheses.

## Assessing support for H1

Table III indicates strong support for H1. For separatists, the coefficient estimate for *Low intensity – competitive* is in the expected negative direction and it is statistically significant at 99%. Therefore, when separatists receive low intensity support from states that are militarily competitive with their home governments, this significantly prolongs their wars. However, the remaining coefficients for low intensity support to separatists are all statistically insignificant. Additionally, all of the coefficients for low intensity support to center-seekers are statistically insignificant. Consequently, low intensity support only prolongs separatist wars and it only does so when supporters are militarily competitive with the separatists' home government, just as H1 predicted.

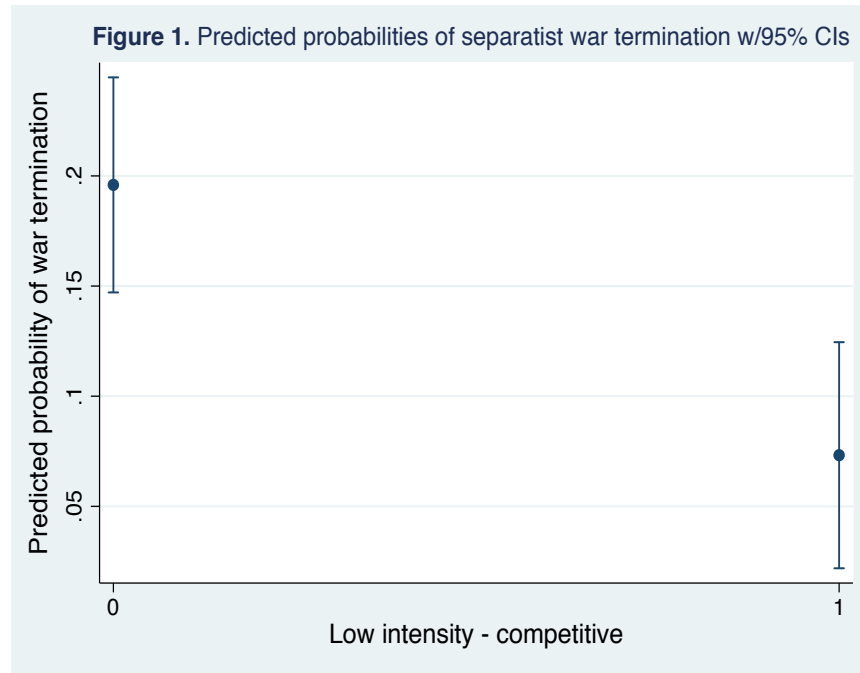
Figure 1 below demonstrates the degree to which militarily competitive states reduce the probability of war termination when they provide separatists with low intensity support.<sup>78</sup> When separatists receive low intensity support from militarily competitive states, this decreases the probability of war termination from 0.196 to 0.073. This represents a 168% decrease in the probability of war termination ( $((0.196 - 0.073) / 0.073) = 1.68$ ). Since the 95% confidence intervals around these probabilities do not overlap, this decrease is statistically significant. Therefore, when

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<sup>78</sup> Predicted probabilities are calculated by holding covariates at their observed values, as advised by Hanmer and Kalkan (2013). Confidence intervals are calculated via the delta method.



militarily competitive states provide low intensity support to separatists, this reduces the probability of war termination in a substantively meaningful way.



Syrian and Iranian assistance to Palestinian Islamic Jihad (PIJ), a separatist group targeting Israel, demonstrates how low intensity support from militarily competitive states makes the termination of separatist wars less likely. After PIJ resumed its separatist war with Israel in 2001 (Melander, Pettersson, & Themner, 2016), Syria began hosting the group in 2002 (Hogbladh, Pettersson, & Themner, 2011). Syria hosted PIJ from 2002 through 2008. During this period, Syria was militarily competitive with Israel, as it held an average of 39% of the military capabilities in the Syria-Israel dyad. The access to Syrian territory was crucial in enabling PIJ to continue its war. Historically, PIJ was amongst the weakest of all separatist groups. When PIJ began its fight in 2001, it had just 500 soldiers

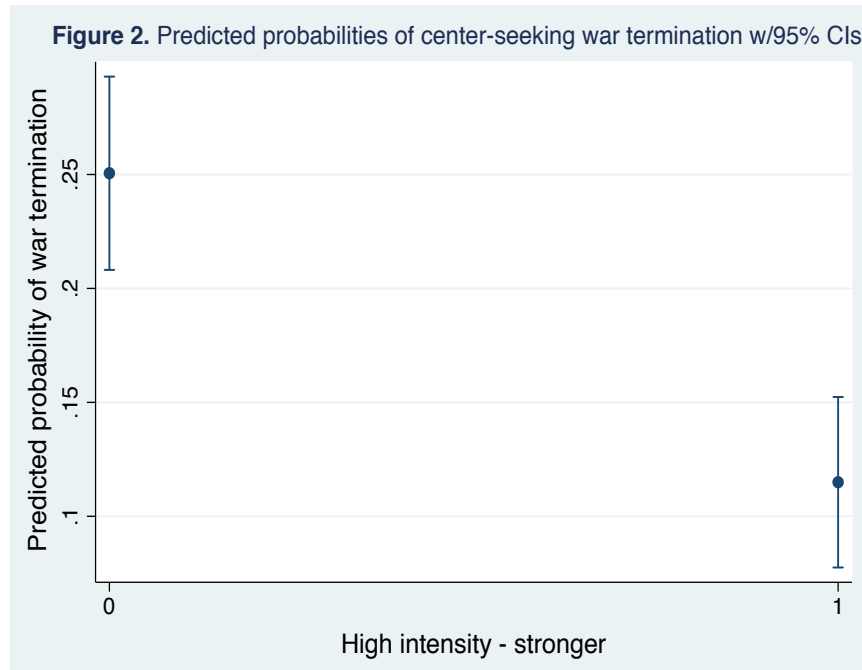
(Cunningham, Gleditsch, & Salehyan, 2013), while Israel's army had 164,000 troops and some of the best military equipment in the Middle East. Furthermore, PIJ did not exercise control over Israeli territory (Cunningham, Gleditsch, & Salehyan, 2013). Therefore, it is unlikely that PIJ would have been able to continue its war from 2002 through 2008 without access to Syrian territory. Since Syria was militarily competitive with Israel, Israel was hesitant to attempt to destroy PIJ's Syrian bases; as such attacks would have risked potentially costly retaliation. This helped PIJ avoid a defeat by the Israeli military. While PIJ did not retain access to Syrian territory in 2009, by 2009 Iran was hosting PIJ and providing it with financial support (Hogbladh, Pettersson, & Themner, 2011). In 2009, Iran was militarily competitive with Israel, as it held 58% of the dyadic military capabilities. The provision of low intensity support from Iran enabled PIJ to continue its conflict through 2014. Without low intensity support from Syria and Iran, it is unlikely that PIJ would have been able to wage a continuous separatist war from 2002 through 2014.

#### Assessing support for H2A

In addition to providing support for H1, Table III also provides strong support for H2A. For center-seekers, the coefficient estimate for *High intensity - stronger* is in the expected negative direction and it is statistically significant at 99%. Thus, when center-seekers receive high intensity support from states that are militarily stronger than their home governments, this significantly prolongs their wars. However, the remaining coefficients for high intensity support to center-seekers are all statistically

insignificant. Consequently, high intensity support prolongs center-seeking wars, but only when supporters are militarily stronger than the center-seekers' home government, just as H2A predicted.

Figure 2 below reveals the degree to which militarily stronger states reduce the probability of war termination when they provide center-seekers with high intensity support. When center-seekers receive high intensity support from militarily stronger states, this decreases the probability of war termination from 0.251 to 0.115. This represents a 118% decrease in the probability of war termination ( $((0.251 - 0.115) / 0.115) = 1.18$ ). Since the 95% confidence intervals around these probabilities do not overlap, this decrease is statistically significant. Therefore, when militarily stronger states provide high intensity support to center-seekers, this reduces the probability of war termination in a substantively meaningful way.



Soviet assistance to the Salvadoran rebel group, FMLN, demonstrates how high intensity support from militarily stronger states makes the termination of center-seeking wars less likely. FMLN began fighting the Salvadoran government in 1980 and it received training and weapons from the Soviet Union from 1980 through the end of its fight in 1991 (Hogbladh, Pettersson, & Themner, 2011; Kreutz, 2010; Melander, Pettersson, & Themner, 2016). While it supported the FMLN, the Soviet Union was militarily stronger than El Salvador, as it held over 99% of the dyadic military capabilities (Singer, 1987). Beginning in 1986, the Soviet Union informed FMLN that it would not support a rebel-led leftist government in El Salvador if the FMLN overthrew the existing regime (The Christian Science Monitor, 1992). However, it continued providing FMLN with high intensity support, though the magnitude of the support began to decline. Even while it was receiving declining amounts of support, the FMLN initially calculated that it was better to continue to

fight, rather than negotiate a peace agreement. Yet, by the late 1980s, the declining Soviet support encouraged FMLN to enter into serious negotiations to end the war. After five years of declining Soviet support, the FMLN eventually agreed to end the war in 1991, in exchange for acceptance as a Salvadoran political party (Uppsala Universitet (El Salvador), 2018). This case indicates that high intensity support to center-seekers will often raise their expected payoff for fighting so that they prefer continued violence to compromise. Therefore, war termination is substantially less likely when center-seekers receive high intensity support from states that are militarily stronger than their home government.

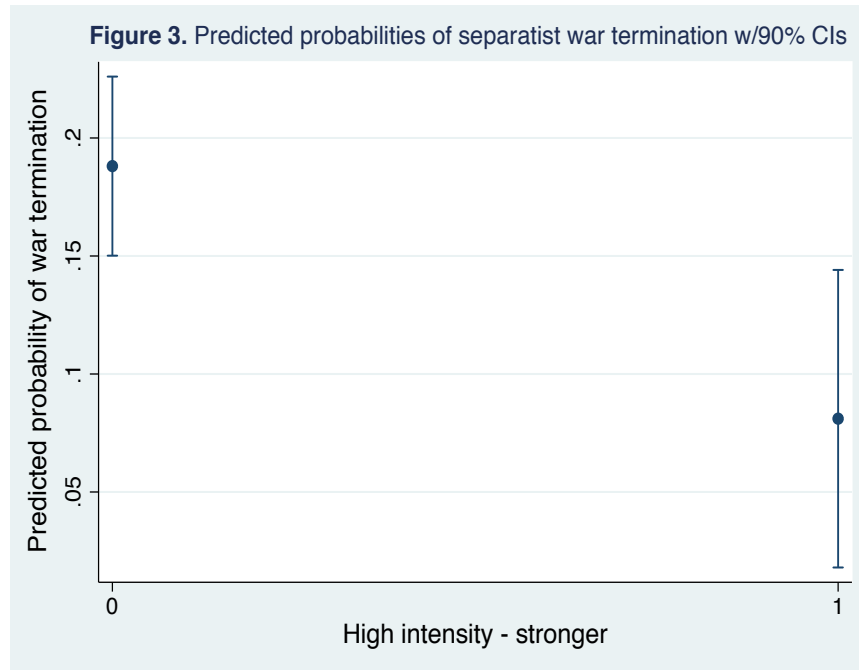
#### Assessing support for H2B

While Table III provides consistent support for all of H1 and H2A's predictions, it provides support for H2B's first prediction, but not its second one. For separatists, the coefficient estimate for *High intensity - stronger* is in the expected negative direction and it is statistically significant at 90% (p-value = .061). Consequently, high intensity support significantly prolongs separatist wars when supporters are militarily stronger than the separatists' home government. Therefore, the first prediction of H2B is supported.

Recall that H2B also predicts that high intensity support significantly prolongs separatist wars when supporters are militarily competitive with the rebels' home government. However, for separatists, the coefficient estimate for *High intensity –*

*competitive* is statistically insignificant. Thus, H2B's second prediction is not supported. One plausible explanation for this is that separatists might be most likely to receive these instances of support when they are struggling militarily. Evaluating this logic would require annual time-varying variables capturing changes in items such as rebel territorial control and/or military strength. However, currently available data only measures these variables for the duration of the conflict, rather than on an annual basis (Cunningham, Gleditsch, & Salehyan, 2013). Therefore, new data and additional research would be necessary to unpack this potential explanation as to why high intensity support from militarily competitive states does not significantly prolong separatists' wars.

Returning to the portion of H2B that was supported, Figure 3 below demonstrates the degree to which militarily stronger states reduce the probability of war termination when they provide separatists with high intensity support. When separatists receive high intensity support from militarily stronger states, this decreases the probability of war termination from 0.188 to 0.081. This represents a 132% decrease in the probability of war termination ( $((0.188 - 0.081) / 0.081) = 1.32$ ). Since the 90% confidence intervals around these probabilities do not overlap, this decrease is statistically significant. Therefore, when militarily stronger states provide high intensity support to separatists, this reduces the probability of war termination in a substantively meaningful way.



The results for the controls indicate that variables other than rebel support can also generate differential impacts on the odds of war termination for separatist vs. center-seeking conflicts. For example, rebel territorial control significantly decreases the odds of center-seeking war termination, yet it significantly raises the odds of separatist war termination. One potential explanation for this difference is that center-seekers have incentive to keep fighting until they meet their objective of government overthrow. Territorial control makes it less likely that center-seekers will be defeated militarily and/or experience ceasefires/low activity outcomes. Yet, center-seekers may not be satisfied with compromise just because they control territory. Instead, they may require a significant change in government before agreeing to a war-ending settlement. Therefore, control of territory may prolong center-seeking wars by making it tougher for governments to defeat the rebels without necessarily making

settlements more likely. In contrast, separatists may be more willing to stop fighting when they exercise control over territory. As expected, when governments experiencing civil war receive support from foreign states, this reduces the odds of war termination. However, this impact is only statistically significant (at 90%) for center-seeking wars. Increasing a rebel group's relative military strength had a statistically insignificant impact on the odds of war termination for both separatist and center-seeking conflicts.

In the appendix below, I demonstrate that this article's main results hold when using different cut-offs to classify rebels' supporters as militarily competitive with the rebels' home government. The appendix also demonstrates that the main results are robust to the use of a Cox semi-parametric proportional hazards model, controlling for the Cold War period, and clustering the standard errors on the rebel group's home government (rather than the rebel group-rebel home government dyad).

## **Conclusion**

In this article, I argued that rebel support should only lengthen wars when it significantly increases the rebels' expected payoff for executing the types of wars they must fight to accomplish their goals. Center-seeking rebels anticipate that they must fight intense conventional wars against militarily stronger opponents in order to achieve their objectives (Siegel, 2018a; 2018b). Expanding on this logic led me to argue that only high intensity support could prolong center-seeking wars, and that it



would only do so when supporters are militarily stronger than the rebels' home government. The results of this study strongly supported this argument.

Unlike center-seekers, separatist rebels can accomplish their goals by fighting long low intensity guerrilla wars (Siegel, 2018a; 2018b). Therefore, even low intensity support can substantially increase separatists' expected value for fighting, so long as they anticipate that it would endure for reasonably long periods. I argued that separatists are most likely to expect low intensity support to persist when it comes from states that are militarily competitive with their home government. Separatists understand that these states can and must maintain low intensity support for long periods in order to realize meaningful benefits from providing the rebels with assistance. Empirical testing supported the hypothesis that low intensity support substantially lengthens separatist wars, but only when supporters are militarily competitive with the rebels' home government. Additional analysis confirmed that high intensity support significantly prolongs separatist wars when supporters are militarily stronger than the rebels' home government.

Most studies of rebel support's impact on civil war duration only investigate how the provision of troops to rebels affects the odds of war termination (Balch-Lindsay & Enterline, 2000; Cunningham, 2010). Only one study examines how different types of rebel support influence conflict duration (Sawyer, Cunningham, & Reed, 2017). My research contributes to the literature by examining more than just how different types of rebel support affect the odds of war termination. I also

analyzed whether the military capabilities of the supporter and the goals of the rebel group play a role in determining how rebel support impacts war duration. My results demonstrate that these three factors work together to determine whether rebel support prolongs civil war. The contrasting impact of low intensity support on the duration of separatist and center-seeking wars represents a particularly interesting finding. Rebel support has the largest conflict-prolonging impact when separatist rebels receive low intensity support from states that are militarily competitive with their home government. However, low intensity support never comes close to significantly lengthening center-seeking wars, regardless of the supporter's military capabilities.

These findings have important policy implications. If third-party policymakers wish to prevent rebel support from lengthening civil wars, they must pay attention to the rebels' goals, the type of support provided, and the military capabilities of the supporter. For example, if policymakers can prevent separatists from continuously receiving low intensity support from states that are militarily competitive with the rebels' home government, these wars should be more likely to end. However, policymakers wishing to shorten center-seeking wars need not focus significant effort in preventing the rebels from receiving low intensity support. Such assistance has virtually no impact in prolonging center-seeking conflicts. In contrast, policymakers wishing to end center-seeking wars should be diligent in preventing militarily strong states from providing center-seekers with high intensity support. Center-seeking wars are significantly more violent than separatist conflicts, and high intensity support

from militarily strong states has a profound impact in lengthening these destructive wars.

Iranian support to the Houthi rebels in Yemen provides a cautionary example as to why third parties should undertake efforts to prevent center-seekers from receiving high intensity support from militarily strong states. Iran began supplying Houthi rebels with anti-tank weapons even before large-scale fighting between the rebels and government began in 2014 (The National, 2018). Furthermore, Iranian military personnel have been training the Houthis in Yemen since at least 2014 (Gertz, 2015). Therefore, Iran, which is clearly militarily stronger than the Yemeni government, has continuously provided the center-seeking Houthis with high intensity support from 2014 through the time of this writing. The support has incentivized the Houthis to prefer continued fighting to compromise. It has enabled the Houthis to capture and continuously control the Yemeni capital and a significant portion of northern Yemen since 2014. The Yemeni civil war has caused a massive humanitarian crisis. Furthermore, the alleged Iranian provision of ballistic missiles to the Houthis has destabilized Saudi Arabia, as the Houthis have fired these weapons into Saudi Arabia over one hundred times. The Houthis are composed of members of a Yemeni religious minority. Consequently, it seems unlikely that the Houthis could have exercised continuous control over the Yemeni capital if the international community would have prevented them from receiving high intensity support from Iran. Additionally, continued Iranian support minimizes the odds that the Houthis will be defeated or agree to a peaceful war-ending settlement.

Finally, in addition to the implications discussed above, this article also has implications for future research. Existing work demonstrates that rebels deliberately kill more of their civilians when they receive support from external states (Salehyan, Siroky, & Wood, 2014). Future research should investigate whether rebels kill more civilians when the external support they receive is more likely to lengthen their wars. Furthermore, future studies can examine whether support that significantly raises a rebel group's expected payoff for fighting actually leads to more favorable war outcomes for the rebels. In conclusion, this article suggests that a rebel group's goals, the type of support it receives, and the military capabilities of its supporter, all play important roles in determining how intervention impacts the duration and dynamics of civil wars.

## **Appendix**

This appendix is included to determine whether the results in the main article are robust to additional tests. The appendix consists of four additional tests. The results below indicate that the conclusions in the main article are robust to the additional tests included in this appendix.

### Test #1 - Robustness of results to a different cut-off for military competitiveness

In the main article, I classified two states as being militarily competitive if a rebel group's supporter had between 35% and 65% of the military capabilities in the supporter-rebel home government dyad. However, a rebel group could consider its supporter militarily competitive with its home government if its capabilities fall slightly outside these cut-offs. In order to assess whether the main article's results are robust to a less restrictive operationalization of military competitiveness, Table A1 below classifies supporters as militarily competitive if they have between 30% and 70% of the dyadic capabilities. Table A1 uses coarsened exact matching (CEM) to

prune the final estimation sample in a procedure that is identical to the one used in the main article. In order to evaluate the effectiveness of the matching procedure, I use the  $L_1$  statistic to measure the amount of multivariate imbalance in the matched and unmatched data (Iacus, King, & Porro, 2012). Lower values for this statistic indicate better balance. For separatists, the  $L_1$  statistic for the unmatched data is 0.54 compared to 0.34 in the matched data. The  $L_1$  statistic for the unmatched data for center-seekers is 0.44 and matching reduces this statistic to 0.28. Therefore, applying CEM improves balance in a meaningful way for both separatist and center-seeking wars. Table A1 demonstrates that the main article's findings are robust to this different cut-off for classifying two states as militarily competitive:

1. Low intensity support to rebels only significantly prolongs civil wars when rebels have separatist goals. However, this effect only occurs when the supporter is militarily competitive with the separatists' home government.
2. High intensity support significantly prolongs center-seeking wars. However, this effect only occurs when the supporter is militarily stronger than the center-seekers' home government.
3. High intensity support significantly prolongs separatist wars. However, this effect only occurs when the supporter is militarily stronger than the separatists' home government.

Table A1. Regression estimates of civil war termination, 1975-2009

	<i>Model 1</i>	<i>Model 2</i>
	<i>Separatist wars</i>	<i>Center-seeking wars</i>
High intensity - stronger	-0.97* (0.57)	-0.99*** (0.24)
High intensity - competitive	-0.34 (0.41)	0.06 (0.23)
High intensity - weaker	-0.97 (0.81)	-1.65 (1.01)
Low intensity - weaker	-0.32 (0.42)	0.13 (0.34)
Low intensity - competitive	-0.86** (0.36)	-0.12 (0.30)
Low intensity - stronger	-0.25 (0.55)	-0.45 (0.38)
Rebels' relative military capabilities (log)	-0.14 (0.11)	0.05 (0.08)
Rebel territorial control	0.72** (0.36)	-0.49** (0.24)
Government support	-0.12 (0.35)	-0.36 (0.23)
Time	-0.68*** (0.17)	-0.22** (0.11)
Time <sup>2</sup>	0.06*** (0.02)	0.01 (0.01)
Time <sup>3</sup>	-0.00*** (0.00)	-0.00 (0.00)
Constant	-0.37 (0.67)	0.35 (0.36)
Observations	732	910

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-rebel home government dyad. Standard errors in parentheses.

## Test #2 - Robustness of results to a Cox semi-parametric proportional hazards model

In order to evaluate whether the main article's results are dependent on a logistic regression model, Table A2 below assesses how rebel support impacts war duration with a Cox semi-parametric proportional hazards model. Unlike logistic regression, Cox models make no assumption about the baseline hazard of the event of interest (war termination). Instead, they use the data to shape the fit of the baseline hazard. The Cox models in Table A2 evaluate how the independent variables impact the likelihood of observing war termination at any given point in time, given that the war has survived up to that point. The dependent variable of war duration is measured in days.

Cox models make the proportional hazards assumption. In this instance, the assumption is that the variables have the same impact on the hazard of war termination, regardless of the war's duration. When this assumption is violated, analysts should include a variable that interacts the offending variable(s) with the duration of the event of interest (Box-Steffensmeier & Jones, 2004). Tests of proportional hazards indicate that this assumption is only violated for the variable *Low intensity –weaker* for separatist rebels. Therefore, I interact this variable with the natural log of time in Table A2. Instead of hazard ratios, I report coefficient estimates in Table A2. Negative coefficients indicate that a variable reduces the hazard of war termination. Positive coefficients indicate that a variable increases the hazard of termination. Table A2 demonstrates that the main article's key results are robust to a Cox semi-parametric proportional hazards model.

Table A2. Regression estimates of civil war termination, 1975-2009, Cox semi-parametric proportional hazards model

	<i>Model 1</i>	<i>Model 2</i>
	<i>Separatist wars</i>	<i>Center-seeking wars</i>
High intensity - stronger	-1.00* (0.52)	-0.66*** (0.22)
High intensity - competitive	-0.09 (0.43)	0.08 (0.23)
High intensity - weaker	-0.77 (0.54)	-0.10 (0.34)
Low intensity - weaker	-0.03 (2.10)	0.02 (0.18)
Low intensity - competitive	-1.09** (0.45)	0.17 (0.23)
Low intensity - stronger	0.22 (0.33)	-0.23 (0.27)
Rebels' relative military capabilities (log)	-0.03 (0.06)	0.04 (0.05)
Rebel territorial control	-0.10 (0.23)	-0.34* (0.18)
Government support	0.12 (0.21)	-0.48*** (0.16)
Low intensity - weaker * log (time)	-0.05 (0.31)	
Observations	744	958

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-rebel home government dyad. Standard errors in parentheses.

### Test #3 – Including a variable to control for the Cold War

During the Cold War, the US and USSR (and each side's allies) were active in supporting rebels and governments that shared their democratic or communist ideologies, respectively. Furthermore, these instances of support could contribute to longer civil wars during the Cold War period. Thus, it is possible that the main article's results could be driven by the Cold War period. This period may have been correlated with a large number of instances of rebel support (key independent variable) as well as longer wars (dependent variable). Thus, Table A3 below is based off Models 1 and 2 in the main article, except that Table A3 includes a control variable that takes the value of "1" if the observation occurs during the Cold War



period (1945-1990), “0” otherwise. Similar to the models in the main article, coarsened exact matching meaningfully improves balance for Table A3. For separatists, the  $L_1$  statistic for the unmatched data is 0.54 compared to 0.34 in the matched data. The  $L_1$  statistic for the unmatched data for center-seekers is 0.44 and matching reduces this statistic to 0.28.

Controlling for the Cold War reduces the statistical significance of the finding that when militarily strong states provide separatists with high intensity support, this lengthens civil wars. However, the coefficient is still in the expected negative direction, considerable in magnitude, and statistically significant at 90% (one-tailed). The rest of the key conclusions from the main article receive strong support in the analysis conducted in Table A3. Therefore, the main article’s overall conclusions are robust to controlling for the Cold War period.

Table A3. Regression estimates of civil war termination, 1975-2009

	<i>Model 1</i>	<i>Model 2</i>
	<i>Separatist wars</i>	<i>Center-seeking wars</i>
High intensity - stronger	-0.81† (0.62)	-0.86*** (0.26)
High intensity - competitive	-0.26 (0.47)	-0.11 (0.29)
High intensity - weaker	-0.67 (0.59)	-0.03 (0.47)
Low intensity - weaker	-0.42 (0.41)	-0.02 (0.26)
Low intensity - competitive	-0.98** (0.44)	0.01 (0.33)
Low intensity - stronger	0.46 (0.48)	-0.40 (0.38)
Rebels' relative military capabilities (log)	-0.14 (0.11)	0.06 (0.08)
Rebel territorial control	0.70* (0.37)	-0.42* (0.24)
Government support	-0.20 (0.37)	-0.35 (0.23)
Cold war	-0.83*** (0.32)	-0.45** (0.23)
Time	-0.69*** (0.18)	-0.21* (0.11)
Time <sup>2</sup>	0.07*** (0.02)	0.01 (0.01)
Time <sup>3</sup>	-0.00*** (0.00)	-0.00 (0.00)
Constant	-0.07 (0.69)	0.50 (0.37)
Observations	732	910

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (two-tailed), † p<0.1 (one-tailed). Table lists coefficient followed by robust standard errors clustered on rebel group-rebel home government dyad. Standard errors in parentheses.

#### Test #4 – Clustering standard errors on the rebel group’s home government

In the main article, I clustered the standard errors at the level of the dyadic conflict between a single rebel group and its home government (aka the rebel group-rebel home government dyad). However, error dependencies could also exist at the level of the rebel group’s home government. For example, civil wars occurring in countries with minimal capabilities to monitor rebel activity could be more difficult for the government to end. Therefore, the errors for all civil wars within such countries could be highly correlated. Thus, I present Table A4 below. This table’s models are identical to those in the main article, except that the standard errors are clustered at the level of the rebel group’s home government.

Table A4 indicates that the main conclusions from the main article all retain statistical significance. These findings are 1) when states that are militarily competitive with a separatist group’s home government provide low intensity support to the rebels, this significantly lengthens their civil wars 2) when militarily stronger states provide high intensity support to separatists, this significantly lengthens their civil wars 3) when militarily stronger states provide high intensity support to center-seekers, this significantly lengthens their civil wars. In contrast with the main article, Table A4 indicates that when militarily weaker states provide separatists with either low or high intensity support, this statistically lengthens their civil wars (at 95% and 90%, respectively). While these results were not anticipated, Table A4, when taken as a whole, upholds the most important conclusions from the main article.

Table A4. Regression estimates of civil war termination, 1975-2009

	<i>Model 1</i>	<i>Model 2</i>
	<i>Separatist wars</i>	<i>Center-seeking wars</i>
High intensity - stronger	-1.05** (0.48)	-1.01*** (0.21)
High intensity - competitive	-0.15 (0.37)	-0.09 (0.29)
High intensity - weaker	-0.89* (0.46)	0.04 (0.52)
Low intensity - weaker	-0.59** (0.24)	0.00 (0.26)
Low intensity - competitive	-1.21*** (0.36)	0.08 (0.33)
Low intensity - stronger	0.22 (0.45)	-0.45 (0.44)
Rebels' relative military capabilities (log)	-0.16 (0.10)	0.07 (0.10)
Rebel territorial control	0.74* (0.43)	-0.50 (0.31)
Government support	-0.12 (0.36)	-0.39 (0.28)
Time	-0.70*** (0.21)	-0.21* (0.11)
Time <sup>2</sup>	0.06*** (0.02)	0.01 (0.01)
Time <sup>3</sup>	-0.00*** (0.00)	-0.00 (0.00)
Constant	-0.39 (0.68)	0.41 (0.47)
Observations	732	910

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 (all two-tailed). Table lists coefficient followed by robust standard errors clustered on rebel home government dyad. Standard errors in parentheses.

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## **Conclusion to the dissertation**

I have argued that a rebel group's goals and a potential (and actual) supporter's military capabilities play a key role in shaping the 1) probability of rebel support, 2) the intensity of assistance provided, and 3) the impact of support.

Rebels with center-seeking goals are more likely than separatists to fight wars that involve intense conventional battles. Consequently, if potential supporters' are militarily stronger than the center-seekers' home government, they can enable the rebels to seriously threaten their government's existence by providing external support. This led me to argue that increasing a potential supporter's military capabilities, relative to those of a center-seeking group's home government, should significantly increase the probability of rebel support. The empirical analysis conducted above strongly supported this hypothesis.

Because militarily stronger potential supporters can enable center-seekers to inflict significant damage, I argued that they often have the rebel support objective of enabling center-seeker victories or using support as a bargaining chip to obtain concessions. Strong potential supporters can achieve these objectives more easily by providing high intensity support. Therefore, I argued and found that the greatest probability of support to center-seekers occurs in the form of high intensity support from militarily stronger states. These potential supporters are the most likely to have the capability of enabling center-seeker victories or using support as a bargaining

chip. Analysis of center-seeker victories and the use of support as a bargaining chip confirmed that supporters are most likely to achieve these objectives when they are militarily strong and provide high intensity support.

Libyan and Angolan rebel sponsorship supports the argument that militarily stronger states see value in supporting weaker governments' center-seekers to overthrow existing regimes. Libyan high intensity support to Liberian center-seekers during the 1990s enabled the rebels to achieve victory over the Liberian government (Hogbladh, Pettersson, & Themner, 2011; Kreutz, 2010). Libya provided this support despite the fact that interstate tensions between Libya and Liberia did not rise to the level of an interstate rivalry (Thompson, 2001). Like Libya in the 1980s, Angola in the 1990s provided high intensity support to center-seekers fighting a country that was not an Angola rival. In 1997, Angola sent its troops to fight alongside Congolese center-seekers. The troops were critical in enabling the rebels to overthrow the existing Congolese regime (Uppsala Universitet (Congo), 2018). When Angola sent its troops to support the Congolese center-seekers it had 90% of the military capabilities in the Angola-Congo dyad. Similarly, when Libya supported Liberian center-seekers, it had 95% of the capabilities in the Libya-Liberia dyad (Singer, 1987). The Angolan and Libyan cases suggest that militarily strong states see opportunities in providing high intensity support to center-seekers in order to help install new regimes, even when existing interstate tensions do not rise to the level of rivalry.

Unlike center-seekers, separatists can achieve their goals of increased autonomy without fighting intense conventional battles in areas that are important to the government's functioning. Hence, potential supporters understand that supporting separatists could improve their fighting effectiveness, but it is unlikely to empower the rebels to inflict massive damage. Consequently, I posited that states support separatists primarily to enable them to inflict modest additional amounts of damage for long periods. Over time this method of supporting separatists can meaningfully degrade the military capabilities of the separatists' home government. I argued that states would value this benefit the most when they are militarily competitive with the separatists' home government. In contrast to militarily competitive situations, militarily weak states should expect to face costly retaliation for supporting separatists before rebel sponsorship would generate meaningful benefit. Furthermore, militarily strong states need not expend resources supporting weaker governments' separatists just to slowly degrade countries that are already inferior militarily. Empirical analysis confirmed that separatists are significantly more likely to be supported by states that are militarily competitive with their home government, rather than those that are weaker or stronger. Findings also revealed that the highest probability of support to separatists occurs in the form of low intensity support from militarily competitive potential supporters. This is consistent with the argument that states plan to support separatists for long periods in order to slowly drain the military resources of their home government. If states plan on long-term support to separatists, they can accomplish their objectives of draining resources by providing lower intensity types of support, which are less costly financially.

While my rebel support model suggests that states should rarely sponsor stronger governments' separatists, such instances of support do occur. For example, the statistical model in Siegel (2018) predicted that Bhutan would only have a 0.0001 probability of supporting the Indian separatist group NDFB in 2000 (Hogbladh, Pettersson, & Themner, 2011).<sup>79</sup> However, Bhutan provided the group with both training and access to territory in 2000 and 2001. However, by June of 2001, partly as a result of Indian pressure, Bhutan expelled the NDFB and terminated its support for the group (New York Times, 2001). This case provides evidence that while instances of rebel support that are unanticipated by the model above do occur, the mechanisms posited in the model can still play a role in influencing these atypical cases.

Moving to the impact of rebel support, the third and final paper in the dissertation argued that rebel sponsorship is most likely to lengthen civil war when it significantly increases the rebels' expected value for fighting. Center-seekers expect to fight intense conventional battles against militarily superior opponents. This led me to argue that rebel support would only significantly raise center-seekers expected payoff from fighting if it was of high intensity and came from militarily strong states. Hence, rebel support should lengthen center-seeking wars the most when it is of high intensity and comes from states that are militarily stronger than the rebels' home government. Empirical analysis strongly confirmed this hypothesis.

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<sup>79</sup> Bhutan was clearly militarily weaker than India in 2000 as it held less than 1% of the military capabilities in the Bhutan-India dyad (Singer, 1987).

Because separatists can accomplish their objectives by fighting long low intensity wars, I argued that low intensity support could significantly prolong separatist wars, so long as the rebels expect support to persist. Consistent with the second paper's logic, in the third paper I argued that when states are militarily competitive with a separatist group's home government, they have incentive to provide long-term low intensity support to slowly degrade the rebels' home government and prolong the war. Statistical findings indicated that separatist wars last significantly longer when the rebels receive low intensity support from states that are militarily competitive with their home governments. Algerian low intensity support to the Moroccan separatist group Polisario was apparently intended to lengthen this separatist conflict. While Algeria supported Polisario, it was militarily competitive with Morocco (Singer, 1987) and it provided support to force Algeria to engage in a longer war so that it would have difficulty exerting influence over Mali and Mauritania (Thompson & Dreyer, 2011). The key takeaway from the final paper was that rebels' goals, supporters' capabilities, and the intensity of support provided are all key to determining whether rebel support is likely to prolong civil war.

While this dissertation focused on states' military capabilities and rebel support, the theory presented is potentially relevant to different arenas in international relations. For example, if states seek to support cyber criminals to damage other governments, they should consider both the goals of the criminals, as well as whether their state-level capabilities would enable them to accomplish their sponsorship objectives. When analyzing this topic, military capabilities are also likely to enter

states' calculations. Potential supporters of these criminals should consider the possibility of kinetic retaliation before deciding to support groups that target other states with cyber attacks.

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