# Three's Company: The Efficacy of Third-Party Intervention in Support of Counterinsurgency

A Monograph by MAJ Brett Joel Vernetti United States Army



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MAJ Brett Joel Vernetti

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# **Abstract**

Three's Company: The Efficacy of Third-Party Intervention in Support of Counterinsurgency by MAJ Brett Joel Vernetti, US Army, 42 pages.

Does third party military intervention help or hurt an incumbent government during an insurgency? This study attempts to answer this question by testing prevailing military theories of counterinsurgency in the context of third party intervention using basic tests for statistical significance and bivariate contingency. The results show that intervention on behalf of a counterinsurgent decreases the likelihood of a successful government outcome, and specifically, interventions in general, interventions involving the deployment of combat forces, interventions involving military occupation, and interventions by democratic states decrease the likelihood of counterinsurgent success. Early intervention, meaning the commitment of third-party support within the first year of conflict, does not appear to have a significant effect on counterinsurgency success. Likewise, the decision to end an intervention early does not appear to significantly alter the chance of counterinsurgent failure. Interventions in support of an "indirect" approach to counterinsurgencies are the only cases that exhibit a significant improvement for the chances of successful outcome.

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# Introduction

The Vietnam experience left the military leadership feeling that they should advise against involvement in counterinsurgencies unless specific, perhaps unlikely, circumstances obtain -- i.e. domestic public support, the promise of a quick campaign, and freedom to employ whatever force is necessary to achieve rapid victory. In light of such criteria, committing U.S. units to counterinsurgencies appears to be a very problematic proposition, difficult to conclude before domestic support erodes and costly enough to threaten the well-being of all America's military forces (and hence the country's national security), not just those involved in the actual counterinsurgency. <sup>1</sup>

When is it a good idea for a state to intervene in another country's internal conflict?

There are two parts to this question: First, is the intervention really going to help the situation?

Second, if it can help, is it worth the cost? This paper explores these questions, and specifically examines whether intervention to stop an insurgency hurts or helps a beleaguered government's cause.

Recent theoretical literature pertaining to counterinsurgency argues that insurgences cannot be defeated by simply destroying armed resistance, and that they are best defeated by strengthening government capacity and winning support among the indigenous population. <sup>2</sup>

This approach to counterinsurgency, which John Nagel calls the "indirect" approach, has been largely accepted by military scholars and adopted as doctrine by the U.S. military. <sup>3</sup> An important omission from most of these recent theoretical studies of counterinsurgency is an appreciation for the unique role of the third-party intervener. Because these studies primarily examine conflicts

<sup>&</sup>lt;sup>1</sup> David H. Patraeus, American Military and the Lessons of Vietnam: A Study of Military Influence and the Use of Force in the Post-Vietnam Era. PhD Thesis, (Princeton: Princeton University, 1987), 305.

<sup>&</sup>lt;sup>2</sup> Thomas X. Hammes, *The Sling and the Stone: On War in the 21st Century*, (St. Paul, MN: Zenith Press, 2004); David C. Gompert and John Gordon, *War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency*, (Santa Monica, CA: Rand, 2008); David Kilcullen, *The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One*, (Oxford; New York: Oxford University Press, 2009).

<sup>&</sup>lt;sup>3</sup> John A. Nagl, *Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife*, (Westport, Conn.: Praeger, 2002; 2002): 27; *Field Manual 3-24: Counterinsurgency*, (Washington, DC: U.S. Department of the Army, 2006): 1-1.

from the cold-war era, they often treat insurgencies as proxy wars and largely view the "counterinsurgent" as a single homogenous actor. For example, studies pertaining to the Vietnam War (1955-1975) typically frame the conflict as a contest between the United States and either North Vietnam or the Viet Cong. The counterinsurgency effort is rarely examined as an existential struggle by the South Vietnamese government with assistance from the United States and therefore most studies do not provide an appreciation for the separate roles of beleaguered government and third-party supporter.

This paper examines these separate roles to determine if the introduction of foreign combat forces or even the provision of foreign military aid in support of a local counterinsurgent has unique and specific effects on the outcome of insurgency based conflicts. The term "intervention" is used in this paper to specifically describe any introduction of military forces or support on the side of government forces in an insurgency based intrastate conflict. This includes cases where a third party occupies a foreign country and attempts to set up a new government or cases of colonial rebellion where additional combat forces are deployed to assist the colonial government with an insurgency. The study explores the question: Does third party intervention help or hurt an incumbent government during an insurgency? The study tests prevailing military theories on counterinsurgency in the context of third party intervention and ultimately finds that the provision of external military support to a besieged counterinsurgent is often counterproductive.

This study is important for two reasons. First, the United States and its allies are currently engaged in and are increasingly likely to face exactly the types of destabilizing intrastate conflicts examined in this paper. From 1945 to 1999, there were approximately 127 civil wars resulting in an estimated 16.2 million battle deaths and involving more than a third of states in the United Nations. In contrast, during the same time there were only 25 interstate wars involving only 25

states resulting in about 3.33 million battle deaths. <sup>4</sup> James Fearon and David Laitin study this dangerous trend and find that it can be explained by the post cold-war adoption of insurgency as a novel "technology of military conflict." <sup>5</sup> In a related study, Jason Lyall and Isaiah Wilson study conflict outcome and insurgencies from 1800-2005 and find that great powers are increasingly losing insurgency conflicts. <sup>6</sup> Taken together, these studies indicate that insurgency based conflicts are not only becoming more prevalent and more dangerous, but they are also proving very to be an effective means of defeating superior military forces.

Second, this study is important because it addresses a significant oversight of recent scholarship. Military theorists provide ample theories on how best to prosecute counterinsurgency campaigns, but fail to consider the unique role of the third party intervener. Meanwhile, recent International Relations research has largely ignored insurgent warfare as a distinct research agenda<sup>7</sup> but provides a rich source of applicable research on civil wars, civil war intervention, occupation, and asymmetric warfare. This study seeks to synthesize these disciplines in order to explain effect of external intervention in support of the counterinsurgent.

Specifically, the study begins with a review of relevant literature on insurgency, counterinsurgency, and civil war in order to develop a set of hypotheses to explain how different strategies of intervention in support to counterinsurgency affect conflict outcome. It then employs basic statistical tools and a new dataset of 141 insurgent conflicts to confirm or deny the hypotheses. The paper is organized in five sections with the first section reviewing relevant

<sup>&</sup>lt;sup>4</sup> James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," *American Political Science Review* 97, no. 1 (2003): 75.

<sup>&</sup>lt;sup>5</sup> James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," 75

<sup>&</sup>lt;sup>6</sup> Jason Lyall and Isaiah Wilson, "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars," *International Organization* 63, no. 1 (2009): 69.

<sup>&</sup>lt;sup>7</sup> Exceptions include Navin A. Bapat, "Insurgency and the Opening of Peace Processes," *Journal of Peace Research* 42, no. 6 (2005): 699-717; Lyall and Wilson, "Rage Against the Machines"; Fearon and Laitin, "Ethnicity, Insurgency, and Civil War."

literature, and examining how studies from military theory, International Relations, and economics provide insight on the effect of third party intervention. The second section borrows from the literature to develop seven separate hypotheses to explain third-party intervention and counterinsurgency. The third section describes the research design and the fourth section presents test results and findings. The final section discusses the findings, provides conclusions and discusses wider implications.

# Part 1: Counterinsurgency and Intervention

Three areas of study have direct application to this paper. First, militarily oriented theoretical research into the nature of insurgency and the strategies for counterinsurgency has largely informed policy decisions and military doctrine pertaining to these types of conflict. This literature provides an important theoretical foundation for studying counterinsurgency, but lacks a useful appreciation for the unique role of intervention. Second, research into intervention and occupation provides insight into the efficacy of military and economic intervention. This literature explores how well intervention in various forms actually works to achieve its intended purpose. Finally, studies pertaining to civil war, primarily from International Relations research, give important insights into how intervention affects intrastate conflict outcomes and duration.

#### **Insurgency and Counterinsurgency**

The term "insurgency" is much discussed in theoretical literature using synonyms like "small wars"<sup>8</sup>, "modern warfare"<sup>9</sup>, and "guerilla warfare". <sup>10</sup> Bard O'Neill defines insurgency as "a struggle between a nonruling group and the ruling authorities in which the nonruling group

<sup>&</sup>lt;sup>8</sup> Max Boot, *The Savage Wars of Peace: Small Wars and the Rise of American Power*, (New York: Basic Books, 2002).

<sup>&</sup>lt;sup>9</sup> Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency*, (New York: Praeger, 1964).

Mao Zedong, Mao Tse-tung on Guerrilla Warfare, trans. Samuel B. Griffith. (Washington, DC: U.S. Marine Corps, 1989; 1961).

consciously uses political resources (e.g., organizational expertise, propaganda, and demonstrations) and violence to destroy, reformulate, or sustain the basis of legitimacy of one or more aspects of politics." This definition largely matches academic definitions <sup>12</sup> and U.S. military doctrinal definitions. An important aspect of this definition is the emphasis on political means in conflict in addition to the use of violence. This has important implications for military strategy for counterinsurgency because it implies a need for action beyond the traditional application of military force.

O'Neill also provides a useful framework to differentiate insurgency from other types of conflict when he explains that insurgent warfare involves three different "forms of warfare": conventional warfare, terrorism, and guerrilla warfare. He defines "terrorism" as "the threat or use of physical coercion, primarily against noncombatants, especially civilians, to create fear in order to achieve various political objectives had "conventional warfare" as the "direct confrontation of large [military] units in the field, to achieve success. While these first two forms are not exclusive to insurgency, the third form, "guerrilla warfare" represents an important marker for classifying insurgency. O'Neil describes guerrilla warfare as "highly mobile hit-and-run attacks by lightly to moderately armed groups that seek to harass the enemy and gradually

<sup>&</sup>lt;sup>11</sup> Bard E. O'Neill, *Insurgency and Terrorism: From Revolution to Apocalypse*. (Washington, D.C.: Potomac Books, 2005): 15.

Gompert and Gordon, *War by Other Means*, iii-iv; Jason Lyall and Isaiah Wilson, "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars," *International Organization* 63, no. 1 (2009): 70.

<sup>&</sup>lt;sup>13</sup> Field Manual 3-24: Counterinsurgency, (Washington, DC: U.S. Department of the Army, 2006): 1-1.

<sup>&</sup>lt;sup>14</sup> O'Neill, Insurgency and Terrorism: From Revolution to Apocalypse, 33.

<sup>&</sup>lt;sup>15</sup> O'Neill, Insurgency and Terrorism: From Revolution to Apocalypse, 33.

<sup>&</sup>lt;sup>16</sup> O'Neill, Insurgency and Terrorism: From Revolution to Apocalypse, 36.

erode his will and capability." <sup>17</sup> This corresponds to Fearon and Laitin's description of insurgency as subset of civil war, or more specifically as,

a technology of military conflict characterized by small, lightly armed bands practicing guerrilla warfare from rural base areas. As a form of warfare insurgency can be harnessed to diverse political agendas, motivations, and grievances. The concept is most closely associated with communist insurgency, but the methods have equally served Islamic fundamentalists, ethnic nationalists, or 'rebels' who focus mainly on traffic in coca or diamonds."<sup>18</sup>

Theoretical literature pertaining to insurgency and counterinsurgency primarily deals with cold-war era insurgencies prior to 1975<sup>19</sup> and these studies mainly examine communist inspired insurgencies characterized by a strategy of "protracted popular war" as articulated by Mao Zedong's *Guerrilla Warfare*. <sup>20</sup> John Nagl classifies the counterinsurgency strategies recommended by studies from this period into two categories: the "direct" approach and the "indirect" approach. <sup>21</sup> The "direct" approach, often associated with Harry G. Summers, posits that insurgencies are best defeated by decisive destruction of an insurgency's armed forces. <sup>22</sup> The "indirect" approach posits that insurgences are best defeated by securing terrain and winning support among the population. <sup>23</sup> Current U.S. military doctrine largely embraces the "indirect"

<sup>&</sup>lt;sup>17</sup> O'Neill, Insurgency and Terrorism: From Revolution to Apocalypse, 35.

<sup>&</sup>lt;sup>18</sup> Fearon and Laitin, "Ethnicity, Insurgency, and Civil War," 75.

<sup>&</sup>lt;sup>19</sup> Important works from this era include David Galula, *Counterinsurgency Warfare: Theory and Practice*, (St. Petersburg, FL: Hailer Publishing, 2005; 1964); Roger Trinquier, *Modern warfare: A French View of Counterinsurgency*, (New York: Praeger, 1964); Robert Grainger Ker Thompson, *Defeating Communist Insurgency: Experiences from Malaya and Vietnam*, (London: Chatto & Windus, 1966); and Harry G. Summers, *On Strategy: A Critical Analysis of the Vietnam War*, (Novato, CA; New York: Presidio Press, 1995; 1982).

John A. Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, (Westport, Conn.: Praeger, 2002; 2002): 21-23; refers to Mao Zedong, Mao Tse-tung on Guerrilla Warfare, trans. Samuel B. Griffith. (Washington, DC: U.S. Marine Corps, 1989; 1961).

 $<sup>^{21}</sup>$  Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, 27.

<sup>&</sup>lt;sup>22</sup> Summers, On Strategy: A Critical Analysis of the Vietnam War.

Galula, Counterinsurgency Warfare: Theory and Practice; Trinquier, Modern warfare: a French view of counterinsurgency; Thompson, Defeating Communist Insurgency: Experiences from Malaya and Vietnam, 171.

approach<sup>24</sup> and recent theoretical studies on counterinsurgency build on these foundational works and apply indirect theories of counterinsurgency to recent conflicts, most notably in Iraq and Afghanistan.<sup>25</sup>

Despite the recent emphasis on counterinsurgency in military literature, there is very little non-military empirical research specifically dealing with insurgency as a unique form of intrastate conflict. Important exceptions are studies by Fearon and Laitin and Phillip Keefer who examine why insurgencies begin; Stathis Kalyvas who examines the role of violence in insurgencies, and Lyall and Wilson who examine how insurgencies end (or more specifically, why counterinsurgents lose).

Fearon and Laitin introduce the concept of insurgency as a novel and unique military technology in civil war. They study post cold-war intrastate conflicts and find that "financially, organizationally, and politically weak central governments render insurgency more feasible and attractive due to weak local policing or inept and corrupt counterinsurgency practices. These often include a propensity for brutal and indiscriminate retaliation that helps drive noncombatant locals into rebel forces." Similarly, Keefer uses a commitment credibility model to show how the inability of weak political actors to make credible promises to large segments of the population causes governments to pursue public policies that leave citizens worse off and more prone to revolt. In addition, he shows how weak governments are not able to build effective counterinsurgency capacity because capable counterinsurgent forces are more able to overthrow their weak government employers. The same popular dissatisfaction that causes insurgents to

<sup>&</sup>lt;sup>24</sup> Field Manual 3-24: Counterinsurgency.

Hammes, The Sling and the Stone: On War in the 21st Century; Gompert and Gordon, War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency; Kilcullen, The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One.

<sup>&</sup>lt;sup>26</sup> Fearon and Laitin, "Ethnicity, Insurgency, and Civil War," 75-76.

rebel also motivates the counterinsurgent forces to attempt military coups.<sup>27</sup> Together, these studies posit that a weak and corrupt government makes a state vulnerable to insurgency warfare.

Kalyvas explores how insurgency based conflicts develop and proposes a micro theory of irregular warfare to describe the role of violence in the insurgent/counterinsurgent's battle for the support of a local populace. He rejects other theories of intrastate conflict that attribute a propensity for popular rebellion to the existence of grievances or opportunities within a populace<sup>28</sup> and instead contends that "control" determines a populace's likelihood of supporting an insurgency.<sup>29</sup> He explains that whichever side, government or rebel, controls a piece of terrain will enjoy the local population's support. This control is predicated on the ability to apply selective retribution, or what Kalyvas calls "selective violence". <sup>30</sup> Basically, government forces must have reliable information in order to kill or capture insurgents and insurgent supporters within a controlled territory. Likewise, insurgents must have accurate information in order to threaten or kill government sympathizers. Lacking this information, a force must apply "indiscriminate violence" in order to protect itself which risks further alienating the local population. This "identification problem" causes the essential counterinsurgent dilemma: one needs to control an area in order to collect reliable information (because local informants fear enemy retribution); but one needs reliable information to exert control (and apply selective violence). 31 Kalyvas tests this argument using data about village loyalty during the Greek Civil War (1945-1949) and finds that control, more than any other factor, determines local support during an insurgency.

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<sup>&</sup>lt;sup>27</sup> Phillip Keefer, "Insurgency and Credible Commitment in Autocracies and Democracies," *World Bank Economic Review* 22, no. 1 (2008): 33-34.

<sup>&</sup>lt;sup>28</sup> Paul Collier and Nicholas Sambanis. *Understanding Civil War: Europe, Central Asia, and Other Regions: Evidence and Analysis.* (Washington DC: World Bank, 2005).

<sup>&</sup>lt;sup>29</sup> Stathis N. Kalyvas, *The Logic of Violence in Civil War*. (Cambridge: New York, 2006), 113.

<sup>&</sup>lt;sup>30</sup> Kalyvas, The Logic of Violence in Civil War, 173.

<sup>&</sup>lt;sup>31</sup> Kalyvas, *The Logic of Violence in Civil War*, 89-92.

Lyall and Wilson apply this "identification problem" concept to the study of insurgent conflict outcome. They argue that increasing mechanization within state militaries after World War I is primarily responsible for the recent reduction of counterinsurgent success. They further argue that modern mechanized militaries have force structures that inhibit information collection among local populations, which complicates the process of separating insurgents from noncombatants. They also argue that this information disadvantage increases the difficulty of selectively applying rewards and punishment among the fence-sitting population and therefore inadvertently fuels insurgency. Lyall and Wilson test this argument using 286 insurgencies from 1800–2005 and find that higher levels of mechanization correlates with an increased probability of counterinsurgent defeat. 32

Research into asymmetric conflict provides another theoretical explanation for outcomes in insurgent based conflicts. Ivan Arreguin-Toft proposes a theory of asymmetric conflict outcomes based on strategic interaction that is directly applicable to counterinsurgency. He argues that in a conflict between a strong combatant and a weak combatant, the stronger combatant is more likely to win if both sides use similar strategies, meaning they both fight for the same objectives. Conversely, the weaker side's chance of victory improves if each side approaches the conflict with different strategies. Arreguin-Toft describes two ideal types of strategy that correspond with Nagl's general classification of "direct" and "indirect" counterinsurgency strategies. University of warfare seek to achieve victory through decisive destruction of an enemy's armed forces while "indirect" strategies seek victory by targeting the enemies will to fight. He tests his theory of strategic interaction on conflicts from

<sup>&</sup>lt;sup>32</sup> Lyall and Wilson, "Rage Against the Machines."

<sup>&</sup>lt;sup>33</sup> Ivan Arreguin-Toft, "How the Weak Win Wars - A Theory of Asymmetric Conflict," *International Security* 26, no. 1 (2001): 93-128.

 $<sup>^{34}\,</sup>$  Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, 27.

1800-1998 and finds that *like* strategic combinations (i.e. direct vs. direct or indirect vs. indirect) favor the stronger combatant while *unlike* strategic combinations (i.e. direct vs. indirect) favor weak combatants. In relation to counterinsurgency strategy, his reasoning predicts that the weaker insurgent using guerrilla warfare typically wins over the larger government forces that use conventional combat strategies.<sup>35</sup>

Asymmetric conflict outcomes might also be explained by resolve and perseverance. Andrew Mack argues that an actor's relative resolve explains success or failure in asymmetric conflicts. Basically, in protracted asymmetric conflicts, the side with the most resolve wins, regardless of military power. He contends that power asymmetry explains what he calls "resolve asymmetry" because that the greater the gap in power, the less resolute the strong actor is, and the more resolute the weak actors is. Mack suggests that big nations lose small wars because the conflict represents a relatively minor or secondary issue, whereas the small actor sees the small war as a struggle for its very existence. While this theory is not directly applicable to insurgency based conflicts because both the incumbent government and rebels are engaged in an existential struggle, it can explain the behavior of third-party interveners in protracted conflicts. In fact, Mack uses the example of the U.S. intervention in Vietnam to demonstrate a case of asymmetric resolve determining a war's outcome.

Similarly, researchers of asymmetric warfare and counterinsurgency argue that democracies are particularly ill equipped to win insurgency based civil wars.<sup>37</sup> For example, Gil

<sup>&</sup>lt;sup>35</sup> Arreguin-Toft, "How the Weak Win Wars - A Theory of Asymmetric Conflict," 107-108.

<sup>&</sup>lt;sup>36</sup> Andrew J.R. Mack, "Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict," World Politics, Vol. 27, No. 2 (January 1975): 175-200.

<sup>&</sup>lt;sup>37</sup> Peter Feaver and Christopher Gelpi, *Choosing Your Battles: American Civil-Military Relations and the Use of Force*, (Princeton: Princeton University Press, 2004); Alastair Horne, *A Savage War of Peace: Algeria, 1954-1962*, (New York: New York Review Book, 1977): 545-48; Galula, *Counterinsurgency Warfare: Theory and Practice, 44-45*; Gil Merom, *How Democracies Lose Small Wars: State, Society, and the Failures of France in Algeria, Israel in Lebanon, and the United States in Vietnam,* (Cambridge, UK; New York: Cambridge University Press, 2003; 2003).

Merom presents the counterinsurgency campaigns of France in Algeria (1954–1962), Israel and Lebanon (1982–2000), and the U.S. in Vietnam (1955-1975) as examples of how democratic states' domestic publics are both averse to casualties and unwilling to make the required sacrifices to win a counterinsurgency campaign. A recent study by Jason Lyall disputes these findings. He tests the outcome of 286 insurgent-based conflicts from 1896 to 2001 and controls for democratic state performance relative to autocracies. He also controls for confounding factors that bias causal estimates, specifically the possibility that democracies typically fight wars of choice as external occupiers. Lyall ultimately finds that democracies are no more likely to lose counterinsurgency conflicts than autocracies.<sup>38</sup>

An important omission in almost all of these studies is the appreciation for the specific role of outside intervention. As stated above, the theoretical literature primarily deals with coldwar and post-colonial conflicts and treats the counterinsurgent as a single actor, ignoring the separate roles the besieged local government and outside intervener. Similarly, applicable studies of asymmetric warfare and counterinsurgency only consider the dyadic interaction between a single large actor and a single smaller actor. None of these studies properly address how outside intervention in support of the counterinsurgent actually affects conflict outcome or duration.

An important implication of these studies is the role of political struggle in insurgency. First, this literature shows that weak governments make states vulnerable to insurgency and efforts to defeat an insurgency by simply killing or capturing the insurgents are unlikely to succeed without addressing the fundamental issues that make the government vulnerable to insurgency. Second, the literature shows that political considerations also have implications for the intervener. Studies from asymmetric warfare indicate that relative resolve, or more specifically a lack of relative resolve by an intervening state, might explain why insurgency

<sup>&</sup>lt;sup>38</sup> Jason, Lyall, "Do Democracies make Inferior Counterinsurgents? Reassessing Democracy's Impact on War Outcomes and Duration." Princeton University Website, (June 2009), <a href="http://www.princeton.edu/~jlyall/">http://www.princeton.edu/~jlyall/</a>.

represents such an effective strategy of asymmetric warfare. In addition, certain regime types, specifically democracies, may be more susceptible to problems of resolve. In all cases, the literature implies that political and popular resolve, rather than military power, may explain conflict outcomes.

# **Intervention and Occupation**

While there is not much empirical research specifically addressing intervention and counterinsurgency, there is an applicable body of literature addressing the general efficacy of different types of intervention. Specifically, useful studies from International Relations and economics examine the effects of intervention in the form of direct military intervention, military occupation, and economic aid.

Military intervention, defined in this study as the deployment of combat forces into another country, is examined by Christopher Coyne who uses game theory to show how military intervention is a poor strategy for assisting other states to form stable governments. He presents a model to show how stable polities are formed by an iterative "coordination game" where opposing sides must work towards developing norms and institutions and demonstrate credible commitment. <sup>39</sup> Using this model, Coyne is able to show how military intervention interrupts the "game" and causes a disincentive to credible commitment behavior. <sup>40</sup>

Beyond simple military intervention, military occupation is the most invasive form of intervention. Scholars define occupation as "the effective control of a power (be it one or more states or an international organization, such as the United Nations) over a territory to which that

<sup>&</sup>lt;sup>39</sup> Christopher J. Coyne, *After War: The Political Economy of Exporting Democracy*, (Stanford: Stanford University Press, 2006): 36.

<sup>&</sup>lt;sup>40</sup> Coyne, After War: The Political Economy of Exporting Democracy, 117.

power has no sovereign title, without the volition of the sovereign of that territory." This can take the form of annexation (intending to permanently control the territory) or colonialism (intending to control the territory for economic gain) but often the occupations are temporary, with the occupier intending to vacate the occupied territory as soon as possible and return control over to an indigenous government. Studies of occupation show that they rarely end well<sup>42</sup> and as David Edelstein states, "military occupation is among the most challenging tasks of statecraft and, as a consequence, failure is much more common than success." He studied 26 cases of military occupation between 1815 and 2005 and found that only seven cases can be considered successful. He identified three primary problems common to all the occupations: a natural nationalist resistance to occupation, a difficulty of maintaining of occupier commitment to the occupation, and a difficulty in successfully terminating the occupation by setting up a government capable of administering and securing the territory.

Finally, not all intervention involves the deployment of combat forces. Another option is to provide non-military aid to assist vulnerable governments in building capacity to fight insurgencies or alleviate the grievances that fuel insurgencies. For this type of intervention, research into economic aid to vulnerable states is useful and recent literature indicates that this type of intervention is problematic. For example, World Bank economists Tim Harford and Michael Klein propose the concept of an "aid curse" and suggest that well meaning foreign aid weakens a government because it damages incentives for institutional reform and provokes

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<sup>&</sup>lt;sup>41</sup> Eval Benvenisti, *The International Law of Occupation*. (Princeton: Princeton University Press, 1993), 4.

<sup>&</sup>lt;sup>42</sup> Lyall, "Do Democracies Make Inferior Counterinsurgents?" 17. David M. Edelstein, *Occupational Hazards: Success and Failure in Military Occupation*. (Ithaca: Cornell University Press, 2008), 2.

<sup>&</sup>lt;sup>43</sup> Edelstein, Occupational Hazards, 2.

<sup>&</sup>lt;sup>44</sup> Edelstein, *Occupational Hazards*, 12-13.

conflict over the control of aid resource rents. In addition, Simeon Djankov, Jose G. Montalvo, and Marta Reynal-Querol study 108 recipient countries in the period 1960 to 1999 and find that countries with above average aid receipts relative to GDP demonstrate statistically significant political deterioration. Similarly, Debora Brautigam and Stephen Knack examine aid to Sub-Saharan Africa and find that aid receipt promotes corrupt rent seeking, political infighting, fraud, and theft.

Taken together, the literature on military intervention, occupation, and economic aid provides two important implications for this study. First, these studies show that intervention in all its forms has a dubious record for achieving its intended purposes. As occupations rarely end well, military intervention and economic aid often have bad effects in promoting stability and security. Second, this literature indicates that these different types of intervention specifically hinder or even preclude the development of the effective government institutions that are necessary for a stable state.

# **Civil War and Intervention**

A third source of useful literature which addresses the role and impact of outside state intervention is the study of civil wars. This literature, primarily from International Relations scholars, seeks to find explanations for what causes and ends intra-state conflicts. Of particular interest to this study is literature addressing two dependant variables: civil war duration and outcome.

<sup>&</sup>lt;sup>45</sup> Tim Harford and Michael Klein, *Aid and the Resource Curse*, (Washington DC: The World Bank Group, 2005): 1.

<sup>&</sup>lt;sup>46</sup> Simeon Djankov, Jose G. Montalvo, and Marta Reynal-Querol, *The Curse of Aid*, (Washington DC: World Bank, 2005).

<sup>&</sup>lt;sup>47</sup> Debora Brautigam and Stephen Knack, "Foreign Aid, Institutions and Governance in Sub-Saharan Africa." *Economic Development and Cultural Change* 52, no. 2 (2004): 255-286.

Much of the research into duration is focused on how third-party interveners might stop fighting and bring peace in intrastate conflicts. These studies largely indicate that intervention is ineffective or even harmful to efforts to hasten peace. For example, Patrick Regan uses hazard analysis to test intrastate conflicts form 1945 to 1991 and finds that interventions designed to stop conflict are rarely effective. Dylan Balch-Lindsay and Andrew Enterline use a duration model of civil war and conclude that external interventions tend to increase rather than decrease the expected duration of a civil war. These results are consistent with other research on civil wars.

Research into civil war outcome also shows that third-party intervention can be important in predicting government victory, rebel victory, or negotiated settlement. Dylan Balch-Lindsay, Andrew Enterline, and Kyle Joyce use an event history framework of competing risks to show that third-party interventions can be decisive in determining civil war outcomes. They find that third-party intervention on only one side of a conflict increases the likelihood of victory for the supported side and also increases the likelihood of negotiated settlement. They also find that third-party interventions on both sides of a conflict increase the likelihood of stalemate. <sup>51</sup>

Ibrahim Elbadawi and Nicholas Sambanis test the effect of third-party intervention on the side of rebels and find that it is positively associated with the duration of civil war. Specifically, they find that third-party intervention in favor of the rebels has the effect of reducing the cost of sustaining a rebellion which leads to longer conflict. This in turn affects outcome because longer

<sup>&</sup>lt;sup>48</sup> Patrick M. Regan, "Third-Party Interventions and the Duration of Intrastate Conflicts," *The Journal of Conflict Resolution* 46, no. 1 (2002): 55-73.

<sup>&</sup>lt;sup>49</sup> Dylan Balch-Lindsay and Andrew J. Enterline, "Killing Time: The World Politics of Civil War Duration, 1820-1992," *International Studies Quarterly* 44, no. 4 (2000): 615-642.

<sup>&</sup>lt;sup>50</sup> Ibrahim Elbadawi and Nicholas Sambanis, *External Interventions and the Duration of Civil Wars*, World Bank Policy Research Working Paper 2433, 2000); and Paul Collier, Anke Hoeffler, and Mans Soderbom, "On the Duration of Civil War," *Journal of Peace Research* 41, no. 3 (2004): 253-273.

<sup>&</sup>lt;sup>51</sup> Dylan Balch-Lindsay, Andrew J. Enterline and Kyle A. Joyce, "Third-Party Intervention and the Civil War Process," *Journal of Peace Research*; 45, no 3 (2008): 345-363.

conflicts favor the rebels and make government victory less likely. <sup>52</sup> This is largely corroborated by Navin Bapat who explores the relationship between duration and outcome using a game theory model to test post cold-war civil wars and finds that short conflicts favor the government because incipient rebellions are vulnerable. He also finds that the longer the conflict, the less the chance of negotiated settlement or government victory. <sup>53</sup> Similarly, Karl DeRouen and David Sobek examine government capacity, civil war, duration, and outcome and find that governments have the advantage with short conflicts but that "duration decreases the probability of a government victory and increases the probability of treaty."

Taken together, the literature on civil war, intervention, outcome, and duration provides two important implications for this study. First, non-biased interventions, simultaneous interventions (supporting both sides), and interventions in favor of rebels tend to prolong conflicts. Second, these longer conflicts tend to increase the probability for both rebel victory and negotiated settlement. Second in the second intervention in favor of rebels tend to prolong conflicts.

The shortcoming in this literature, as applied to the study of counterinsurgency, is twofold. First, none of these studies address the emergence of insurgent warfare as a recent phenomenon, and second, these studies do not evaluate the use of specific third-party intervention strategies and their effect on outcome.

<sup>&</sup>lt;sup>52</sup> Elbadawi and Sambanis, "External Interventions and the Duration of Civil Wars."

<sup>&</sup>lt;sup>53</sup> Bapat, "Insurgency and the Opening of Peace Processes."

<sup>&</sup>lt;sup>54</sup> Karl R. DeRouen and David Sobek, "The Dynamics of Civil War Duration and Outcome," *Journal of Peace Research* 41, no. 3 (2004): 315.

<sup>&</sup>lt;sup>55</sup> Balch-Lindsay and Enterline, "Killing Time: The World Politics of Civil War Duration, 1820-1992;" Regan, "Third-Party Interventions and the Duration of Intrastate Conflicts;" Collier, Hoeffler, and Soderbom, "On the Duration of Civil War," Balch-D. Balch-Lindsay, A. J. Enterline, and K. A. Joyce, "Third-Party Intervention and the Civil War Process," *Journal of Peace Research* 45, no. 3 (2008): 345-363.

<sup>&</sup>lt;sup>56</sup> Elbadawi and Sambanis, "External Interventions and the Duration of Civil Wars"; DeRouen and Sobek, "The Dynamics of Civil War Duration and Outcome"; Bapat, "Insurgency and the Opening of Peace Processes."

Collectively, the reviewed literature pertaining to counterinsurgency and intervention provides three important implications for this study. First, a significant omission in almost all of these studies is an appreciation for the particular role that outside intervention in a counterinsurgent campaign. Specifically, there are no rigorous empirical studies examining how outside intervention, on the side of the counterinsurgent, actually affects conflict outcome and duration. Second, the literature on intervention and civil war indicates that certain types of intervention tend to prolong conflict and these longer conflicts tend to decrease the probability of government victory. Finally, the literature on occupation, military intervention, and, foreign aid indicates that intervention weakens rather than strengthens governments while military theoretical literature and International Relations studies show that weak governments are more vulnerable to insurgency. The next section attempts to synthesize these findings to form a theoretical explanation and testable hypotheses for intervention and counterinsurgency.

# Part 2: Hypotheses

The previous section reviewed applicable literature, and specifically examined studies of military theory, International Relations, and economics pertaining to counterinsurgency and intervention. This section attempts to synthesize the literature from these disciplines and develop seven testable hypotheses for how third-party intervention affects conflict outcome in a counterinsurgency.

The first hypothesis examines the overall effect of intervention and outcome drawing on three propositions from the reviewed literature. First, current U.S. military doctrine, <sup>57</sup> military

<sup>&</sup>lt;sup>57</sup> Field Manual 3-24: Counterinsurgency, ix.

theoretical literature, <sup>58</sup> and International Relations studies <sup>59</sup> indicate that insurgent warfare is primarily a political struggle. This literature shows that efforts to defeat an insurgency by simply killing or capturing the insurgents cannot succeed without addressing the fundamental issues that make a government vulnerable to insurgency. Second, third-party intervention provides a disincentive for vulnerable governments to make necessary reforms or build effective counterinsurgency capacity. Governments involved in insurgencies are faced with what Ronald Wintrobe calls the "Dictator's Dilemma" where, "the greater the dictator's power, the more reason he or she has to be afraid." <sup>60</sup> This concept specifically applies to counterinsurgency because the types of effective government institutions that prevent and defeat insurgencies are exactly the types of institutions that threaten the survival of leaders in weak governments. <sup>61</sup> Recent economic scholarship concerning foreign aid, <sup>62</sup> reconstruction <sup>63</sup> as well as International Relations scholarship concerning civil war <sup>64</sup> shows that well meaning intervention can have a detrimental effect on a vulnerable government. This reasoning is tested by the first hypothesis:

*Hypothesis #1:* Third-party intervention in support of a counterinsurgent decreases the likelihood of a successful outcome for the counterinsurgent.

But not all interventions are the same. Intervention can take the form of financial and advisory aid or it can involve the deployment of military forces to support a host-nation government. David Kilcullen reasons that the deployment of combat troops to support a

<sup>&</sup>lt;sup>58</sup> Kilcullen, The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One, 265-6.; O'Neill, Insurgency and Terrorism: From Revolution to Apocalypse; Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, 249.

<sup>&</sup>lt;sup>59</sup> Keefer, *Insurgency and Credible Commitment in Autocracies and Democracies*, 58.

<sup>&</sup>lt;sup>60</sup> Ronald Wintrobe, *The Political Economy of Dictatorship*, (Cambridge: Cambridge University Press, 1998): 22.

<sup>&</sup>lt;sup>61</sup> Keefer, "Insurgency and Credible Commitment in Autocracies and Democracies," 37-38.

<sup>&</sup>lt;sup>62</sup> Harford and Klein, *Aid and the Resource Curse*; Djankov, Montalvo, and Reynal-Querol, *The Curse of Aid*; Brautigam and Knack, "Foreign Aid, Institutions and Governance in Sub-Saharan Africa."

<sup>&</sup>lt;sup>63</sup> Coyne, After War: The Political Economy of Exporting Democracy,

<sup>&</sup>lt;sup>64</sup> Keefer, "Insurgency and Credible Commitment in Autocracies and Democracies."

counterinsurgent can be counterproductive because it delegitimizes the incumbent government in the eyes of the population<sup>65</sup> and DeRouen and Sobek's study of civil war outcome supports this position by showing that a larger military force does not necessarily enhance the government's cause.<sup>66</sup> In addition, the intervening military forces can actually prove detrimental to basic efforts to control territory and win support of a population. Because the intervening forces are likely to have cultural, linguistic and ethnic differences with the local population, they are more likely to be subject to Kalyvas' "identification problem" and therefore be less able to apply "selective violence" in exerting control.<sup>67</sup> The second hypothesis tests this proposition:

*Hypothesis* #2: Third-party deployment of combat forces to support a counterinsurgent decreases the likelihood of a successful outcome for the counterinsurgent.

Another option for an intervening third party is military occupation. This is the most invasive form of outside intervention and also the costliest form of commitment for the third-party intervener. All of the problems listed for hypothesis 1 and 2 exist plus military occupations are subject to three unique challenges: a natural nationalist resistance to occupation, a difficulty of maintaining of occupier commitment to the occupation, and a difficulty in successfully terminating the occupation by setting up a government capable of administering and securing the territory. Taken together, these observations suggest that occupation is a bad means of stopping an insurgency. The third hypothesis tests this proposition:

*Hypothesis* #3: Third-party intervention by military occupation decreases the likelihood of a successful outcome for the counterinsurgent.

<sup>&</sup>lt;sup>65</sup> Kilcullen, The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One, 285.

<sup>&</sup>lt;sup>66</sup> DeRouen and Sobek, "The Dynamics of Civil War Duration and Outcome," 317.

<sup>&</sup>lt;sup>67</sup> Kalyvas, The Logic of Violence in Civil War, 89-92.

<sup>&</sup>lt;sup>68</sup> Edelstein, Occupational Hazards, 2.

<sup>&</sup>lt;sup>69</sup> Edelstein, Occupational Hazards, 12-13.

It is also possible that a state's approach to counterinsurgency can make a difference. If an intervener is able to persuade the besieged government to adopt good counterinsurgency strategy, then it may allow for a successful outcome. Arreguin-Toft's theory of asymmetric conflict predicts that an insurgent force using guerrilla warfare typically wins over a larger government force that employs a "direct" approach designed to defeat rebel combat forces. Current U.S. military doctrine attempts to avoid this outcome by advocating what Nagl categorizes as an "indirect" approach to counterinsurgency based on winning the support of the population. The fourth hypothesis addresses this doctrine:

*Hypothesis #4:* Third-party intervention that supports an "indirect" counterinsurgency strategy increases the likelihood of a successful outcome for the counterinsurgent.

The timing of an intervention in support of a counterinsurgency may also be important. Studies from civil war literature show that longer conflicts tend to increase the probability for rebel victory<sup>72</sup> and military theorists posit that insurgents are most vulnerable at the beginning of the rebellion and counterinsurgents who act early are more likely to experience success.<sup>73</sup> It is possible that early intervention in support of a counterinsurgency can take advantage of this insurgent vulnerably. The fifth hypothesis addresses this possibility:

*Hypothesis* #5: Early third-party intervention increases the likelihood of a successful outcome for the counter insurgent.

<sup>&</sup>lt;sup>70</sup> Arreguin-Toft, "How the Weak Win Wars - A Theory of Asymmetric Conflict," 105.

<sup>&</sup>lt;sup>71</sup> Field Manual 3-24: Counterinsurgency; Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, 27.

<sup>&</sup>lt;sup>72</sup> Elbadawi and Sambanis, "External Interventions and the Duration of Civil Wars"; DeRouen and Sobek, "The Dynamics of Civil War Duration and Outcome"; Bapat, "Insurgency and the Opening of Peace Processes."

<sup>&</sup>lt;sup>73</sup> Galula, Counterinsurgency Warfare: Theory and Practice, 71; Kilcullen, The Accidental Guerrilla: Fighting Small Wars in the Midst of a Big One, 289.

Some researchers suggest that perseverance and resolve makes the difference.<sup>74</sup> It is possible that an early pullout of support to a counterinsurgency increases the chance of insurgent victory as the government would be left with fewer resources to continue the struggle. It is also possible that early pullout could improve chances for success by providing incentives for the besieged government to make reforms and develop counterinsurgent capacity. Is it important for the intervener to stay the course until the conflict is concluded, or does continued intervention actually harm the counterinsurgent's cause? This question is tested by the sixth hypothesis:

*Hypothesis* #6: Early termination of a third-party intervention decreases the likelihood of a successful outcome for the counterinsurgent.

Finally, some theorists posit that democracies make poor counterinsurgents.<sup>75</sup> They argue that democratic states are poorly equipped to handle the protracted conflict and high costs of counterinsurgency. The seventh hypothesis tests this argument:

*Hypothesis* #7: Third-party intervention by a democratic state decreases the likelihood of a successful outcome for the counterinsurgent.

# Part 3: Research Design

The previous section used reviewed literature to form seven hypotheses to explain how intervention affects counterinsurgency outcomes. This section presents the research design, and explains how this study tests each hypothesis.

This paper introduces a dataset of insurgent conflicts derived from two sources: the Correlates of Insurgency Dataset Version 1.0, and the RAND "89 Insurgencies" dataset. <sup>76</sup>

<sup>&</sup>lt;sup>74</sup> Arreguin-Toft, "How the Weak Win Wars - A Theory of Asymmetric Conflict;" Mack, "Why Big Nations Lose Small Wars: The Politics of Asymmetric Conflict"; Merom, *How Democracies Lose Small Wars: State, Society, and the Failures of France in Algeria, Israel in Lebanon, and the United States in Vietnam.* 

Merom, How Democracies Lose Small Wars: State, Society, and the Failures of France in Algeria, Israel in Lebanon, and the United States in Vietnam; Feaver and Gelpi, "Choosing Your Battles: American Civil-Military Relations and the Use of Force"; Horne, A Savage War of Peace: Algeria, 1954-1962, 545-48; Galula, Counterinsurgency Warfare: Theory and Practice, 44-45.

Sample cases were selected based Lyall and Wilson's operational definition of insurgency. Coded conflicts involve at least 1,000 battle deaths with 100 or more casualties suffered on each side and the insurgent side must have employed a guerrilla warfare strategy and sought to win the allegiance of at least some portion of the noncombatant population. In addition, any conflicts which began before 1 January 1945 or were not concluded before 1 January 2007 were excluded. The dataset presents a sample of 141 conflicts containing 43 government victories, 50 insurgent victories, and 48 negotiated settlements. The study's unit of analysis is insurgent conflict, labeled as CONFLICT.

Cases were coded using information from three additional datasets: the Correlates of War Intra-State War Dataset (Version 3.0), the Fearon-Laitin civil war data set (2003), and the Polity IV Project dataset (2007).<sup>79</sup>

#### **Variables**

To operationalize the concept of success in a counterinsurgency, the study utilizes two dependent variables: outcome and duration. The primary dependent variable measures conflict outcome and it is coded under two different dataset fields. The OUTCOME field is coded as WIN, LOSS or DRAW with WIN being defined as the decisive defeat of the insurgent forces and a cessation of hostilities. The LOSS code is given to conflicts where the insurgent is victorious over the government. If the insurgency is a war of secession, then the conflict is coded LOSS

<sup>&</sup>lt;sup>76</sup> Gompert and Gordon, *War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency*. Lyall and Wilson, "Rage Against the Machines."

<sup>&</sup>lt;sup>77</sup> Lyall and Wilson, "Rage Against the Machines", 70.

<sup>&</sup>lt;sup>78</sup> See Appendix 1 for Dataset.

<sup>&</sup>lt;sup>79</sup> Correlates of War 2000 Inter-State War Data, 1816–1997 Version 3.0. http://www.correlatesofwar.org (accessed April 9, 2009). Fearon and Laitin. "Ethnicity, Insurgency, and Civil War;" *Polity IV Project: Political Regime Characteristics and Transitions, 1800-2008.* http://www.systemicpeace.org/polity/polity4.htm (accessed April 14, 2009).

when the insurgency wins both autonomy and independence from the incumbent government. The OUTCOME variable is coded DRAW in cases of negotiated settlement where the incumbent government continues to remain in power, but the insurgents win concessions. In conflicts of secession, negotiated settlements that involve greater regional autonomy, with continued incumbent government authority are coded DRAW.

The data field SUCCESS is used to provide a nominal variable for statistical testing and it is coded "1" for successful outcomes and "0" for unsuccessful outcomes, from the perspective of the counterinsurgent. Unlike previous studies, <sup>80</sup> this paper considers both WIN and DRAW as successful outcomes. This is an important distinction for two reasons. First, a DRAW outcome requires the survival of the incumbent regime, or in the case of conflicts of secession, sovereignty over the region in dispute. In many cases, this may be the best outcome available for an incumbent government and perfectly acceptable to the intervener. Second, successful negotiation can represent an important component of counterinsurgency strategy. <sup>81</sup> For example, a critical aspect of the counterinsurgency effort in Operation Iraqi Freedom was the negotiation with Sunni insurgent groups in 2006 to form the Awakening movement. The outcome of this conflict could be coded a draw for purposes of this study, but could otherwise be considered a success for the counterinsurgent.

The second dependent variable considered for this study is conflict duration and it is coded in two separate dataset fields. The DURATION variable measures the number of years of conflict. Conflicts that began and ended within the same calendar year are coded as "0" (zero) years. For this study, smaller duration is considered better than longer duration based on the assumption that interveners value quick ends to conflict. In addition, the LONG variable is coded

<sup>&</sup>lt;sup>80</sup> Arreguin-Toft, "How the Weak Win Wars - A Theory of Asymmetric Conflict;" Lyall and Wilson, "Rage Against the Machines: Explaining Outcomes in Counterinsurgency Wars."

<sup>81</sup> Field Manual 3-24: Counterinsurgency, A-8

to provide a nominal level measurement for statistical testing. A conflict is coded with "1" if its DURATION was greater than 7.97 years (the mean DURATION for all 141 conflicts in the dataset).

To operationalize the seven proposed hypotheses, the study provides seven explanatory variables. First, the INTERVENTION variable tests for the occurrence of third party intervention in the form of military occupation, military intervention, or other military aid in support of the counterinsurgent forces. The study also includes the suppression of colonial rebellions as interventions if the colonial power deployed additional troops from outside of the colony in order to support the counterinsurgent. The variable titled INTERVENTION is coded "1" if an outside country or colonial power provided assistance to the counterinsurgent during the conflict. The dataset includes 59 conflicts that involved third party intervention.

To test the second hypothesis, the independent variable titled "MILITARY" refers to the type of military intervention. Specifically, cases are coded "1" if the intervention involved the deployment combat units to assist incumbent government forces. The dataset includes 50 conflicts that involved direct military interventions.

The "OCCUPY" variable denotes conflicts involving military occupation. Specifically, cases are coded "1" if the intervention involved the deployment combat forces across international boundaries to establish effective control over a territory to which it had previously enjoyed no sovereign title. This includes cases of colonial rebellions or where the intervening power set up a new government after occupation. The dataset includes 30 conflicts that involved military occupations.

The EARLY variable operationalizes the fourth hypothesis. It codes early intervention with "1" for interventions that begin within the first year of the insurgency and "0" for interventions that begin after the first year. Forty-one conflicts are coded for EARLY with 34 coded "1" for early intervention.

The QUIT variable is coded to test the fifth hypothesis. It codes early termination of an intervention with "1" for interventions that end before settlement of the conflict insurgency and "0" for interventions that end the same year as the conflict. Thirty-nine conflicts are coded for QUIT with 9 coded "1" for early termination of intervention.

| Variable List         |   |  |  |  |  |
|-----------------------|---|--|--|--|--|
| Label                 | Description   | Values   |  |  |  |
| Dependent Variables   |   |  |  |  |  |
| OUTCOME               | What was the conflict outcome from the counterinsurgent's point of view?          | "WIN", "DRAW" or "LOSS"  |  |  |  |
| SUCCESS               | Was the counterinsurgent successful?  | "1" means "WIN" or "DRAW"                                      |  |  |  |
| DURATION              | How long was the conflict in years?   | Number of years  |  |  |  |
| LONG                  | Was the conflict duration longer than 12.1 years?                                 | "1" means longer than 7.97 years                               |  |  |  |
| Independent Variables |   |  |  |  |  |
| INTERVENTION          | Did a third party intervene in support of the counterinsurgent?                   | "1" means yes  |  |  |  |
| MILITARY              | Did the intervener deploy combat forces to support the counterinsurgent?          | "1" means yes  |  |  |  |
| OCCUPY                | Did the intervener conduct a military occupation of the counterinsurgent's state? | "1" means yes  |  |  |  |
| STRATEGY              | Did the counterinsurgent use an "indirect" or "direct" approach to COIN strategy? | "1" means indirect "0" means direct                            |  |  |  |
| EARLY                 | Did the intervener intervene within the first year of conflict?                   | "1" means within the first year "0" means after the first year |  |  |  |
| QUIT                  | Did the intervener quit the intervention before the conflict was concluded?       | "1" means quit early "0" means stayed to the end               |  |  |  |
| DEMOCRACY             | Was the intervener a democratic state?  | "1" means yes.   |  |  |  |

Table 1: Variable List

The STRATEGY variable is used to code counterinsurgent strategy. Specifically, the study uses Nagl's binary categorization of counterinsurgency strategy <sup>82</sup> with the STRATEGY variable coded "1" for the "indirect" approach, characterized by counterinsurgent strategies that concentrated on winning support among the population. Cases are coded "0" for the "direct" approach to counterinsurgency, characterized by attempts to achieve victory through the

 $<sup>^{82}\,</sup>$  Nagl, Counterinsurgency Lessons from Malaya and Vietnam: Learning to Eat Soup with a Knife, 27.

destruction of the insurgency's armed forces. The coding is based off of the RAND "89

Insurgents" dataset's evaluation of counterinsurgent competency. The RAND study presents a list of capabilities relevant to conducting an effective indirect counterinsurgency campaign sand the variable coding comes from RAND analysts' evaluation of counterinsurgency competency in 63 insurgency based conflicts. Specifically, the coding represents a subjective analyst evaluation of how well a counterinsurgent or intervening military demonstrated an ability to plan and carry out military operations relevant to a population-centric approach to counterinsurgency. In cases where RAND rated government and intervener with separate competencies, the intervener competency coding was used. Sixty three conflicts are coded for STRATEGY with thirty of these involving third-party interventions for the counterinsurgent.

The final independent variable, DEMOCRACY, is coded to reflect the intervener's form of government at the time of the intervention. The study codes the intervening state's regime using Polity2 values from the Polity IV Project dataset. The Polity2 rating is a 21-point scaled composite index of regime type that ranges from highly autocratic (-10) to highly democratic (+10). The DEMOCRACY variable is coded "1" for states with a Polity2 rating 6 or higher. <sup>85</sup>

#### Methodology

Two statistical tests are conducted to answer the research question: Does third party military intervention help or hurt an incumbent government during an insurgency? The first test confirms the statistical significance of each independent to dependent variable relationship. The

<sup>&</sup>lt;sup>83</sup> Gompert and Gordon, War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency, xxxiii.

<sup>&</sup>lt;sup>84</sup> Gompert and Gordon, *War by Other Means: Building Complete and Balanced Capabilities for Counterinsurgency*, 389.

Monty G. Marshall and Keith Jaggers, POLITY IV PROJECT: Political Regime Characteristics and Transitions, 1800-2007, (Washington DC: George Mason University and Center for Systemic Peace, 2009).

second test is used to check contingency in order to confirm or deny each of the five hypotheses and it also compares the effect of each independent variable on conflict duration.

# Test Set 1: Chi Square Test for Independence

The Chi Square Test for Independence tests for statistical significance. If the chi-square value exceeds a critical threshold then the study rejects the null hypothesis that there is no relationship between the variables. Basically, this test determines if sample results are the consequence of chance factors or instead reflect a significant relationship between two variables. Test Set 1 uses the STATA (Version 8) statistical software application to generate a 2x3 contingency table and determine the Chi Square, degree of freedom, and sample probability. <sup>86</sup> This study uses the commonly accepted 0.05 level of probability as the Alpha level of significance meaning that the sample probability must be equal to or less than 0.05 in order to be considered statistically significant. <sup>87</sup> To check for significance with conflict outcome, each independent variable sample is tested using a count of OUTCOME in the contingency table. To test for conflict duration significance, each independent variable is tested against a count of the LONG variable.

A hypothesis is considered to be valid (but not confirmed) if the sample probability from the Chi-Square test is equal to or less than the predetermined Alpha level of 0.05. This means that there is a 95% chance that the sample results are not due to chance factors alone, but instead reflects the true relationship between the variables. Only hypothesis found to be valid in Test Set 1 are considered for Test Set 2.

<sup>&</sup>lt;sup>86</sup> StataCorp. Stata Statistical Software: Release 8. (College Station: StataCorp, 2003).

 $<sup>^{87}</sup>$  W. Lawrence Neuman. Basics of Social Research: Qualitative and Quantitative Approaches. 2nd ed. (Boston: Allyn and Bacon, 2006), 270.

#### Test Set 2: Bivariate Contingency Table Test

To further test the seven hypotheses, the study presents a set of two bivariate contingency tables, the first of which tests for OUTCOME, comparing eight separate samples. The first sample provides the OUTCOME results for the overall CONFLICT dataset. The other seven samples show OUTCOMES for each of the independent variables. Each row is calculated as a percentage of its row total and each of the seven independent variable samples is compared to the overall CONFLICT dataset. A hypothesis is confirmed if it demonstrates the predicted change in SUCCESS. For example, Hypothesis 1 predicts that the INTERVENTION sample will result in a larger percentage in the LOSS column than the all CONFLICTs sample (see Appendix 2 for results).

The second Bivariate Contingency Table compares the same seven samples, but uses the DURATION as the dependent variable, and compares it across all three conflict outcomes. Again, the contingency table presents the full CONFLICT sample plus the seven independent variable samples. Each column represents the three possible OUTCOMES and cell values show the mathematical mean of conflict DURATION by OUTCOME type (see Appendix 2 for results).

The advantage of this methodology is threefold. First, it provides a simple test to demonstrate the direction of variable relationships in order to confirm or deny the hypotheses. Second, this test allows for the comparison of effects of separate variables. For example, the test not only shows a significant relationship between intervention and unsuccessful conflict outcome (Hypothesis #1), but it also shows how this relationship differs from the other independent variable samples. Finally, this test provides information on how individual variables affect not only SUCCESS, but specific conflict outcomes (e.g. WIN, DRAW, and LOSS).

# Part 4: Findings

The previous section presented the research design, showing how this study tested each of the seven hypotheses. This section discusses the test results and presents analysis and findings.

# **Test Set 1: Chi-Square Test for Independence**

The Chi-Square Test for Independence shows that four of the seven independent variables demonstrate statistically significant relationships to OUTCOME based on the Alpha probability level of 0.05 (see Table 4). This means that there is at least a 95% chance that the sample results from the INTERVENTION, MILITARY, OCCUPY, and STRATEGY variables are not due to chance factors. These results do not indicate the strength or direction of the relationship, but they do confirm that there is a dependent relationship within the threshold of the 0.05 probability level. The probability for the DEMOCRACY sample did not make the 0.05 threshold because the test results show that there is a 7.6% probability that the sample results are based on chance alone <sup>88</sup> but the results for the DEMOCRACY sample are included in Test Set 2 because this sample is very close to the 0.05 Alpha level probability threshold. They are marked to annotate the lower statistical significance.

| Test 1:    | CHI-Square   | OU             | ТСОМЕ       | LONG           |             |
|------------|--------------|----------------|-------------|----------------|-------------|
| Hypothesis | Variable     | Chi-<br>Square | Probability | Chi-<br>Square | Probability |
| 1          | INTERVENTION | 11.02          | 0.004       | 9.75           | 0.008       |
| 2          | MILITARY     | 12.31          | 0.002       | 12.68          | 0.002       |
| 3          | OCCUPY       | 13.11          | 0.001       | 11.20          | 0.004       |
| 4          | STRATEGY     | 8.55           | 0.014       | 4.73           | 0.094       |
| 5          | EARLY        | 0.29           | 0.865       | 0.14           | 0.934       |
| 6          | QUIT         | 0.06           | 0.972       | 1.57           | 0.456       |
| 7          | DEMOCRACY    | 5.14           | 0.076       | 2.72           | 0.257       |

Table 2: Test Set 1 Results<sup>89</sup>

The test for a relationship with conflict duration showed different results with only three of the seven samples demonstrating a statistically significant relationship with the LONG variable. The test results show that there is 99.2%, 99.8% and 99.9% chance that the sample

<sup>&</sup>lt;sup>88</sup> Neuman. *Basics of Social Research: Qualitative and Quantitative Approaches*, 270.

<sup>&</sup>lt;sup>89</sup> Highlighted cells denote the significant relationship within the 0.05 probability level threshold. DEMOCRACY is included for analysis because it is so close to the threshold.

results from the INTERVENTION, MILITARY, and OCCUPY reflect the sample population accurately. These results also show that the STRATEGY, EARLY, QUIT and DEMOCRACY samples did not make the 0.05 level of probability, meaning that there is a 9.4%, 93.4%, 45.6%, and 25.7% chance that the respective samples returned results based on random factors. Based on these findings only the INTERVENTION, MILITARY, and OCCUPY sample results are considered for comparison to DURATION in Test Sets 2.

Taken together, these test results indicate two important findings. First, they show that two of the independent variables (EARLY and QUIT) do not demonstrate a statistically significant relationship on either conflict outcome or duration. This means that Hypotheses 5 and 6 can be rejected as invalid: early intervention in support of a counterinsurgent and early termination of an intervention are not statistically significant predictors of conflict success.

Second, these results indicate that the subsequent testing in Test Set 2 can provide reasonably accurate findings for five of the independent variables in relation to the OUTCOME dependent variable and three independent variables for DURATION. Results from the other variables are listed in the test results (see Appendix 2) but are not considered for analysis

#### **Test Set 2: Bivariate Contingency Tests**

Hypothesis #1: Third-party intervention in support of a counterinsurgent decreases the likelihood of a successful outcome for the counterinsurgent.

Overall, the bivariate contingency tests confirm Hypothesis 1: the likelihood of a successful outcome decreases with the introduction of the INTERVENTION independent variable. Figure 1 shows that the incidence of SUCCESS (WIN + DRAW) decreases from 64% with all CONFLICTs to 49% with the INTERVENTION sample. Of particular interest, counterinsurgents seem more likely to lose and less likely to win when they receive assistance from a third party. The INTERVENTION sample received a LOSS outcome in 50% of the total outcomes compared to only 35% with the total CONFLICT sample and received a WIN outcome

in 26% of the outcomes compared to 38% with the total sample. Also of interest, the DRAW outcome showed a relatively small change much between samples (34% compared to 29%).

In considering the DURATION dependent variable, the introduction of INTERVENTION does not significantly affect conflict duration. The INTERVENTION sample experienced an average of 7.7 years of conflict compared with the 7.9 years for the total CONFLICT sample (see Figure 2). In examining the specific outcomes, the tests of INTERVENTION with DURATION indicate that counterinsurgents with third party assistance WIN and DRAW quicker. The introduction of the INTERVENTION variable coincided with significant decreases in the average duration of WIN outcomes (4.3 compared to 5.4 years) and DRAW outcomes (8.8 compared to 11.1 years). The average duration of conflicts with a LOSS outcome increased significantly with the introduction of the INTERVENTION treatment (8.4 compared to 7.0 years). This would seem to indicate that while third party intervention may shorten the time to a successful outcome, losing takes longer.

Hypothesis #2: Third-party deployment of combat forces to support a counterinsurgent decreases the likelihood of a successful outcome for the counterinsurgent.

Bivariate contingency testing also confirms Hypothesis 2: the likelihood of a successful outcome decreases with the introduction of the MILITARY independent variable (see Figure 1). These results largely match the results of the INTERVENTION tests with the MILITARY sample demonstrating SUCCESS in 46% of the conflicts, and LOSS for 50%. The WIN and DRAW outcome showed a small change when compared to the INTERVENTION sample (18% compared to 28%). These results, as with the INTERVENTION sample, indicate that counterinsurgents seem to lose more and win less when a third-party deploys military forces.

For the DURATION dependent variable, the introduction of MILITARY did not significantly differ from average conflict duration in the overall CONFLICT sample (see Figure 2). The MILITARY sample experienced an average of 7.8 years of conflict compared with the 7.9

years for the total CONFLICT sample. With regard to specific outcomes, the tests of MILITARY with DURATION indicate that counterinsurgents with third-party assistance experience success (meaning WIN or DRAW) quicker. The introduction of the MILITARY variable coincided with decreases in the average duration of WIN outcomes (4.8 compared to 5.4 years) and DRAW outcomes (7.7 compared to 11.1 years). The average duration of conflicts with a LOSS outcome increased significantly with the introduction of the MILITARY treatment (8.9 compared to 7.0 years). This indicates that the deployment of combat forces, much like in overall cases of intervention, seems to shorten the time of conflict in cases of successful outcome, but in cases of counterinsurgent loss, the fighting lasts longer.

Hypothesis #3: Third-party intervention by military occupation decreases the likelihood of a successful outcome for the counterinsurgent.

Bivariate contingency tests also confirm Hypothesis 3: the introduction of the OCCUPY treatment decreased the likelihood of a successful outcome (see Figure 1). The results follow trends indicated by the INTERVENTION and MILITARY tests with the OCCUPY sample showing even less incidence of success. The OCCUPY sample experienced SUCCESS in 37% of the conflicts, WIN in 20% of the conflicts, and LOSS for 63%. Of particular interest, the DRAW outcome showed a large change when compared to the overall CONFLICT sample (17% compared to 27%). These results, like the INTERVENTION sample, show that counterinsurgents seem to lose more and win less when a third-party deploys military forces to support a counterinsurgency.

Consideration of the OCCUPY variable's relation to the DURATION dependent variable shows significantly different results compared to the overall CONFLICT sample (see Figure 2). The OCCUPY sample experienced an average of 6.0 years of conflict compared with the 7.9 years for the total CONFLICT sample. In comparing specific conflict outcomes and DURATION with the overall CONFLICT sample, the results show that the introduction of the OCCUPY

variable coincides with a minor decrease in the average duration of WIN outcomes (5.0 compared to 5.4 years) and a significant decrease in duration for DRAW outcomes (3.0 compared to 11.1 years). The average duration of conflicts with a LOSS outcome slightly increased with the introduction of the OCCUPY treatment compared to the total CONFLICT sample (7.2 compared to 7.0 years). Overall, these results indicate that occupations end quicker than other forms of intervention. They also provide interesting implications for the prospect of negotiated settlements during occupations. The results from OUTCOME and DURATION dependent variables show that DRAW outcomes are both rare in occurrence and short in duration indicating that negotiations are difficult during occupations, and their chance of success is much better early in the conflict.

Hypothesis #4: Third-party intervention that supports an "indirect" counterinsurgency strategy increases the likelihood of a successful outcome for the counterinsurgent.

Test Set 2 also confirms *Hypothesis #4* (see Figure 1). The incidence of SUCCESS increases from 64% in the overall CONFLICT sample to 71% with the introduction of the STRATEGY treatment. Of particular interest, counterinsurgents seem more likely to win and less likely to lose when interveners support an indirect approach to counterinsurgency. The STRATEGY sample received a WIN outcome in 57% of the outcomes compared to only 30% with the total CONFLICT sample and received a LOSS outcome in 29% of the outcomes compared to 35% with the total sample. The STRATEGY sample returned a DRAW outcome in 14% of the cases compared to 34% in the total CONFLICTS sample. This indicates that the indirect approach to counterinsurgency makes negotiated settlements far less likely.

Analysis of the STRATEGY sample and average DURATION is not included for Test Set 2 because it did not pass Test Set 1 (Chi Square Test of Statistical Significance) for the LONG variable.

Hypothesis #5 and #6: Hypothesis 5 and 6 were rejected as invalid in Test Set 1 (Chi Square Test of Statistical Significance) and are therefore not considered for analysis in Test Set 2.

Hypothesis #7: Third-party intervention by a democratic state decreases the likelihood of a successful outcome for the counterinsurgent.

Bivariate Table Tests confirm Hypothesis 7. The DEMOCRACY sample shows SUCCESS in only 50% of the conflicts compared with 64% in the overall CONFLICT sample. The results provide two additional interesting findings. First, the DRAW outcome (21%) is significantly smaller than both the overall sample (34%) and the INTERVENTION sample (29%). This may indicate that democratic interveners are less open to negotiated settlements. It is also possible that democracies are less likely to choose conflicts where compromise is possible. The second finding is that the DEMOCRACY sample showed the highest LOSE outcome of any of the independent variables and this supports Merom's theory that democratic states make poor counterinsurgents. <sup>90</sup>

Analysis of the DEMOCRACY sample and average DURATION is not included for Test Set 2 because it did not pass Test Set 1 (Chi Square Test of Statistical Significance) for the LONG variable.

<sup>&</sup>lt;sup>90</sup> Merom, Gil. How Democracies Lose Small Wars.

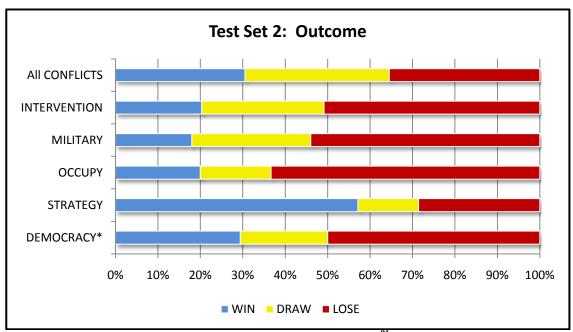


Figure 1: Test Set 2 (OUTCOME)<sup>91</sup>

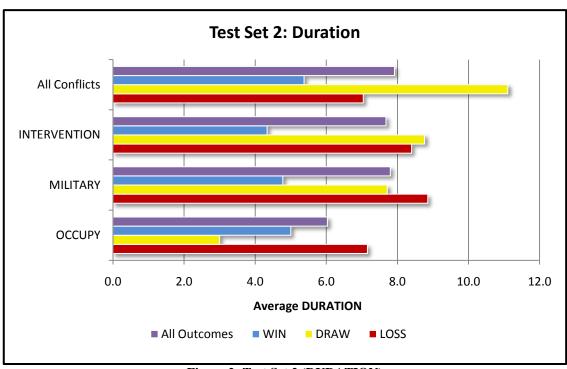


Figure 2: Test Set 2 (DURATION)

<sup>&</sup>lt;sup>91</sup> Results for the DEMOCRACY sample are included because the Chi Square probability is very close to the 0.05 Alpha level probability threshold, but they are annotated to show that the results reflect a lower statistical significance (0.076).

#### Analysis

Taken together, these results confirm that third-party intervention on behalf of a counterinsurgent decreases the likelihood of a successful outcome. Five of the seven hypotheses are confirmed with Hypothesis #5 and #6 being found not valid (see Table 3). The results indicate that the occurrence of an early intervention or the occurrence of an early termination of an intervention do not significantly affect the chances for counterinsurgent success. The results also indicate that third party interventions, military deployments, military occupations, and interventions involving democracies all decrease the likelihood of a successful conflict outcome. Interventions involving an "indirect" approach to counterinsurgency represent the most promising possibility for third-party intervention with the results indicating that an intervener that participates in this type of counterinsurgent effort has a significantly better chance of bringing a successful outcome.

| Hypothesis   | Findings  |
|--|-----------|
| #1: Third-party intervention in support of a counterinsurgent decreases the likelihood   | Confirmed |
| of a successful outcome for the counterinsurgent.  #2: Third-party deployment of combat forces to support a counterinsurgent                                   | Confirmed |
| decreases the likelihood of a successful outcome for the counterinsurgent.   | Commined  |
| #3: Third-party intervention by military occupation decreases the likelihood of a successful outcome for the counterinsurgent.                                 | Confirmed |
| #4: Third-party intervention that supports an "indirect" counterinsurgency strategy increases the likelihood of a successful outcome for the counterinsurgent. | Confirmed |
| #5: Early third-party intervention increases the likelihood of a successful outcome for the counter insurgent.   | Rejected  |
| #6: Early termination of a third-party intervention decreases the likelihood of a successful outcome for the counterinsurgent.                                 | Rejected  |
| #7: Third-party intervention by a democratic state decreases the likelihood of a successful outcome for the counterinsurgent.                                  | Confirmed |

**Table 3: Summary of Findings** 

With regards to the DURATION dependent variable, the results indicate that while third party intervention may shorten the time to a successful outcome, losing takes longer. This finding holds true for invention in general as well and intervention involving the deployment of military forces and military occupation. Of particular interest, interventions involving a military occupation seem to end quicker than other forms of intervention. The results also provide

interesting implications for the prospect of negotiated settlements during occupations.

Specifically, cases involving occupation and negotiated settlement are rare in occurrence and short in duration indicating that negotiations during occupations are particularly difficult, and their chance of success is much better early in the conflict.

Comparing results of the two dependent variables (OUTCOME and DURATION) provides two important findings. First, results indicate that the relationship between DURATION and SUCCESS for the overall CONFLICT sample is largely consistent with the prevailing International Relations literature on civil war that predicts a negative relationship between conflict duration and government success. Figure 3 presents a scattergram comparing conflict outcome to conflict duration using the DURATION and SUCCESS variables. The y axis depicts a count of SUCCESS outcomes while the x access depicts conflict DURATION. The figure shows a negative slope for the linear trend lines in the full CONFLICT sample. The negative slope of the overall CONFLICT sample trend line (m = -0.2524) demonstrates that as the duration of insurgencies increase, the incidence of government success decreases or more simply, the longer the conflict, the lower the incidence of success for the counterinsurgent.

Second, the introduction of the INTERVENTION treatment reveals that third party intervention makes the counterinsurgent coalition (the incumbent government and intervener) less sensitive to the negative relationship between success and duration. The linear trend line for the INTERVENTION sample has a much less steep negative slope compared to the sample overall CONFLICTS (m= -0.0850 compared to m = -0.2524). This observation is consistent with findings in Test Set 2 which show that counterinsurgencies involving intervention have longer average

<sup>&</sup>lt;sup>92</sup> Elbadawi and Sambanis, "External Interventions and the Duration of Civil Wars"; DeRouen and Sobek, "The Dynamics of Civil War Duration and Outcome;" Bapat, "Insurgency and the Opening of Peace Processes."

 $<sup>^{93}</sup>$  Results for Figure 3 are generated using Microsoft Excel 2007 (version 12.0) to create the scatterchart and generate a linear trend lines.

durations with LOSS outcomes. These findings indicate that while intervention can cause a counterinsurgent to hang on longer, it does not necessarily increase the chance of success. Stated another way, intervention can represent a dangerous trap for both beleaguered government and intervener: it may delay probable defeat without increasing the chance of counterinsurgent victory.

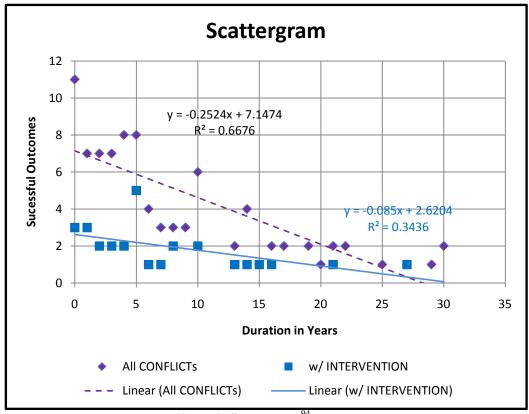


Figure 3: Scattergram<sup>94</sup>

Ultimately, these results indicate an interesting dynamic. They show that the decision to intervene on behalf of a beleaguered counterinsurgent involves a risky gamble. An intervening state may be able to significantly decrease the duration of a successful conflict if it is willing to accept the poorer odds of success. More specifically, intervention provides an opportunity to

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<sup>&</sup>lt;sup>94</sup> See Appendix 2 for supporting data table.

realize a quicker victory for a besieged government, but the intervening state must be willing to gamble with lower odds of winning and a higher cost for defeat.

### Part 5: Conclusion

Does third party military intervention help or hurt an incumbent government during an insurgency? This study attempted to answer this question by testing prevailing military theories of counterinsurgency in the context of third party intervention using basic tests for statistical significance and bivariate contingency. The results show that intervention on behalf of a counterinsurgent decreases the likelihood of a successful government outcome, and specifically, interventions in general, interventions involving the deployment of combat forces, interventions involving military occupation, and interventions by democratic states decrease the likelihood of counterinsurgent success. Early intervention, meaning the commitment of third-party support within the first year of conflict, does not appear to have a significant effect on counterinsurgency success. Likewise, the decision to end an intervention early does not appear to significantly alter the chance of counterinsurgent failure. Interventions in support of an "indirect" approach to counterinsurgencies are the only cases that exhibit a significant improvement for the chances of successful outcome. In addition, conflicts involving intervention demonstrated longer average duration for losses and shorter durations for successful outcomes. If one accepts conflict duration as a proxy for conflict costliness, then these results indicate that intervention to support a counterinsurgent provides cheaper victories but more costly losses.

The implications for policymakers are twofold. First, the results show that the decision of whether to intervene involves a risky tradeoff. An intervening state may be able to significantly decrease the duration of a successful conflict if it is willing to accept the poorer odds of success.

More specifically, intervention provides an opportunity to realize a quicker victory for a besieged

government, but the intervening state must be willing to gamble with lower odds of winning and a higher cost for defeat.

Second, the study suggests two possible strategies to mitigate the risk. First, the intervener could try to convince the besieged government to adopt the "indirect" approach to counterinsurgency that is currently recommended by U.S. military doctrine. The test results validate current U.S. military doctrine and indicate that an "indirect" counterinsurgency strategy increases the likelihood of a successful outcome, and specifically increases the chances of a government victory. Second, the results indicate that military occupation is the least effective strategy for intervention to defeat an insurgency. Interveners should avoid strategies of occupation because occupations are less likely than other types of intervention to win, and much less likely to end in negotiated settlement.

The implications for future research are threefold. First, a future possibility for research could be the examination of conflicts and interventions over time with an expanded insurgent dataset that uses conflict years as the unit of analysis. This would allow for a test model based on an event history framework of competing risks and this expanded research design could permit a better understanding of how intervention timing affects conflict outcome and duration.

Second, future studies could benefit from a more rigorous statistical test that permits the consideration of more explanatory variables. This study considered only seven independent variables, but the complexity of insurgent warfare, counterinsurgency strategy, and intervention options provide many other possibilities. For example, the results from this study indicate that intervention by a democratic state decreases the odds for a successful outcome and Lyall suggest that similar results concerning cases of occupation might be explained by selection bias. <sup>96</sup> It is therefore possible that democracies' poor performance as interveners in support of

<sup>&</sup>lt;sup>95</sup> Field Manual 3-24: Counterinsurgency.

<sup>&</sup>lt;sup>96</sup> Lyall, "Do Democracies make Inferior Counterinsurgents?"

counterinsurgents might be explained because democracies tend to choose hard-to-fight insurgencies. It could be useful to explore how the regime type of the supported government affects outcome because it is possible that democratic states only choose to support certain types of governments, which could in turn explain the poor conflict outcome results. Another potential explanatory variable could be the categorization of military interventions. For example, this study shows that the deployment of combat forces can be counterproductive to a counterinsurgent effort, but it also shows that the employment of an "indirect" approach can bring better results. It is possible that limited deployments of military advisors to coach counterinsurgency techniques could be a productive strategy. It may be useful to explore how this type of intervention affects conflict outcomes.

Third, this type of large-N study provides insight in the aggregate, but as with any examination of human endeavor, real truth is often found in the outliers. A closer examination of individual cases will better explain or clarify the results and possibly suggest better explanatory variables. For example, there are only three cases of negotiated settlement with an intervention involving an indirect counterinsurgency strategy. If negotiated settlement represents an important component of the indirect approach to counterinsurgency, 97 then why are negotiated settlements so rare? A close examination of the three cases could reveal how counterinsurgency strategy affects the possibility of negotiated outcome.

Ultimately, this study highlights a need for more rigorous empirical examinations of counterinsurgency strategy. Specifically, this paper demonstrates an objective method for testing assumptions and evaluating counterinsurgency theory and doctrine. Military theorists need an objective means of testing prevailing theories, and International Relations scholars need to consider the unique impact of insurgency in asymmetric warfare. If insurgency truly represents

<sup>97</sup> Field Manual 3-24: Counterinsurgency, A-8

an emerging "technology of military conflict"<sup>98</sup> that is proving increasingly effective against modern western states, <sup>99</sup> then it is very important to test accepted assumptions that underlie counterinsurgency strategy and policy.

<sup>&</sup>lt;sup>98</sup> James D. Fearon and David D. Laitin, "Ethnicity, Insurgency, and Civil War," 75.

<sup>99</sup> Lyall and Wilson, "Rage Against the Machines," 69.

# **APPENDIX 1: Dataset**

| CONFLICT   | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | ОССИРУ | STRAT | EARLY | QUIT | DEM |
|--|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Greek civil war                                    | 1945  | WIN     | 1       | 4     | 0    | 1      | 0   | 0      | 0     | 1     | 1    | 1   |
| French Indochinese<br>War                          | 1945  | LOSS    | 0       | 9     | 1    | 1      | 1   | 1      | 0     | 1     | 0    | 1   |
| Indonesian<br>Independence                         | 1945  | LOSS    | 0       | 4     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Shifta Insurgency<br>(Eritrea)                     | 1945  | LOSS    | 0       | 7     | 0    | 1      | 1   | 1      |       |       |      | 1   |
| UK v. Zionist<br>movement                          | 1945  | LOSS    | 0       | 3     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| China v. PLA                                       | 1946  | LOSS    | 0       | 3     | 0    | 1      | 0   | 0      | 0     | 1     | 0    | 1   |
| Forest Brothers v.<br>Soviet Union                 | 1946  | WIN     | 1       | 10    | 1    | 1      | 1   | 1      |       |       |      | 0   |
| Huk Rebellion<br>(Philippines)                     | 1946  | WIN     | 1       | 5     | 0    | 1      | 0   | 0      | 1     | 1     | 0    | 1   |
| MDMR Revolt<br>(Madagascar)                        | 1946  | WIN     | 1       | 2     | 0    | 1      | 1   | 1      |       |       |      | 1   |
| USSR v. UPA in<br>Ukraine                          | 1946  | WIN     | 1       | 7     | 0    | 0      | 0   | 0      |       |       |      |     |
| China v. Taiwanese<br>Insurgents (White<br>Terror) | 1947  | LOSS    | 0       | 2     | 0    | 1      | 1   | 1      |       | 1     | 0    | 0   |
| Malagasy Revolt<br>(Madagascar)                    | 1947  | WIN     | 1       | 1     | 0    | 1      | 1   | 1      |       |       |      | 1   |
| La Violencia<br>(Colombia)                         | 1948  | DRAW    | 1       | 14    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Costa Rica v. NLA                                  | 1948  | LOSS    | 0       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Kachin and Karen<br>(KNU) insurgencies<br>in Burma | 1948  | DRAW    | 1       | 46    | 1    | 0      | 0   | 0      | 0     |       |      |     |

| CONFLICT  | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|---|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Yemen v. Internal<br>Opposition                     | 1948  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Malayan Insurgency<br>against British,<br>1950-1960 | 1950  | WIN     | 1       | 10    | 1    | 1      | 1   | 1      | 1     | 1     | 0    | 1   |
| Sino-Tibetan  | 1950  | WIN     | 1       | 1     | 0    | 0      | 0   | 0      |       |       |      |     |
| Bolivia v. MNR                                      | 1952  | LOSS    | 0       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Kenya/Mau Mau<br>Emergency                          | 1952  | WIN     | 1       | 4     | 0    | 1      | 1   | 1      | 1     | 1     | 0    | 1   |
| Tunisian<br>Independence                            | 1952  | LOSS    | 0       | 2     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Indonesia v. Darul<br>Islam                         | 1953  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Moroccan<br>Independence                            | 1953  | LOSS    | 0       | 3     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Algerian<br>Independence                            | 1954  | LOSS    | 0       | 8     | 0    | 1      | 1   | 1      | 1     | 1     | 0    | 1   |
| British-Cypriot                                     | 1954  | DRAW    | 1       | 5     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Cameroon<br>Insurgency                              | 1955  | LOSS    | 0       | 5     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Naga Rebellion                                      | 1955  | DRAW    | 1       | 9     | 1    | 0      | 0   | 0      |       |       |      |     |
| Rwandan<br>Independence                             | 1956  | LOSS    | 0       | 6     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Tibetan Revolt                                      | 1956  | WIN     | 1       | 3     | 0    | 0      | 0   | 0      | 1     |       |      |     |
| Ifni War/Forgotten<br>War<br>(Spanish W. Africa)    | 1957  | DRAW    | 1       | 1     | 0    | 1      | 1   | 1      |       |       |      | 0   |
| Cuba v. Movimiento<br>(26 De Julio)                 | 1958  | LOSS    | 0       | 1     | 0    | 0      | 0   | 0      | 0     |       |      |     |

| CONFLICT  | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|---|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Indonesia v. Darul<br>Islam, PRRI,<br>Permesta          | 1958  | WIN     | 1       | 2     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Lebanon Crisis  | 1958  | WIN     | 1       | 0     | 0    | 1      | 1   | 0      |       | 1     | 0    | 1   |
| DRC v. Katanga  | 1960  | WIN     | 1       | 5     | 0    | 1      | 1   | 0      | 0     | 1     | 1    | 1   |
| Ethiopia v. Eritrea                                     | 1960  | LOSS    | 0       | 33    | 1    | 1      | 1   | 0      | 0     | 0     |      | 0   |
| Laos v. Pathet Lao                                      | 1960  | LOSS    | 0       | 13    | 1    | 1      | 1   | 0      |       | 0     | 0    | 1   |
| Vietnam War   | 1960  | LOSS    | 0       | 15    | 1    | 1      | 1   | 0      | 0     | 1     | 1    | 1   |
| Angola-Portugal   | 1961  | LOSS    | 0       | 14    | 1    | 1      | 1   | 1      | 0     | 1     | 0    | 0   |
| Kurdish Revolt<br>(Iraq)                                | 1961  | DRAW    | 1       | 5     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Algeria v.<br>CNDR(Kabylie)                             | 1962  | WIN     | 1       | 2     | 0    | 0      | 0   | 0      |       |       |      |     |
| Dhofar Rebellion<br>(Oman)                              | 1962  | WIN     | 1       | 13    | 1    | 0      | 0   | 0      |       |       |      |     |
| Guinea Bissau<br>Independence                           | 1962  | LOSS    | 0       | 12    | 1    | 1      | 1   | 1      | 0     | 1     | 0    | 0   |
| Mozambique<br>Independence                              | 1962  | LOSS    | 0       | 13    | 1    | 1      | 1   | 1      | 0     |       |      | 0   |
| North Yemen Civil<br>War                                | 1962  | LOSS    | 0       | 7     | 0    | 1      | 1   | 0      | 0     | 1     | 1    | 0   |
| Fuerzas Armadas de<br>Liberacin Nacional<br>(Venezuela) | 1963  | WIN     | 1       | 2     | 0    | 0      | 0   | 0      |       |       |      |     |
| Rwanda (post-<br>revolution strife)                     | 1963  | WIN     | 1       | 3     | 0    | 0      | 0   | 0      |       |       |      |     |
| Sudan v. Anya Nya                                       | 1963  | DRAW    | 1       | 9     | 1    | 0      | 0   | 0      |       |       |      |     |

| CONFLICT   | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|--|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| UK in Aden   | 1963  | LOSS    | 0       | 4     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Uraguay v.<br>Tupameros  | 1963  | WIN     | 1       | 10    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Kenya v. NFDLM   | 1964  | WIN     | 1       | 5     | 0    | 0      | 0   | 0      |       |       |      |     |
| DRoC Post-<br>Independence War                                 | 1964  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Chad v. FROLINAT   | 1965  | LOSS    | 0       | 14    | 1    | 1      | 1   | 0      |       | 0     | 1    | 0   |
| Colombia v. M-<br>19/ELN                                       | 1965  | DRAW    | 1       | 25    | 1    | 0      | 0   | 0      |       |       |      |     |
| Dominican Republic<br>v. Constitutionalists                    | 1965  | DRAW    | 1       | 1     | 0    | 1      | 1   | 0      | 1     | 1     | 0    | 1   |
| Thailand v. Thai<br>Communist Party<br>(CPT)                   | 1965  | WIN     | 1       | 17    | 1    | 0      | 0   | 0      |       |       |      |     |
| Guatemala v. URNG  | 1966  | DRAW    | 1       | 30    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Mizo Revolt<br>(India)   | 1966  | DRAW    | 1       | 20    | 1    | 0      | 0   | 0      |       |       |      |     |
| Namibia War of<br>Independence                                 | 1966  | LOSS    | 0       | 23    | 1    | 1      | 1   | 1      | 1     |       |      | 0   |
| Zimbabwe/Rhodesia<br>War of<br>Independence                    | 1966  | LOSS    | 0       | 13    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| India v. Naxalite  | 1967  | WIN     | 1       | 4     | 0    | 0      | 0   | 0      |       |       |      |     |
| Nigeria v. Biafran<br>Secessionists                            | 1967  | WIN     | 1       | 3     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Northern Ireland<br>Secessionist<br>Campaign (The<br>Troubles) | 1968  | DRAW    | 1       | 30    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Philippines v. MNLF  | 1968  | WIN     | 1       | 19    | 1    | 0      | 0   | 0      | 0     |       |      |     |

| CONFLICT                                 | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|--|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Cambodia v. FUNK                         | 1970  | LOSS    | 0       | 5     | 0    | 1      | 0   | 0      | 0     | 1     | 1    | 1   |
| Jordan v.<br>Fedeyeen/Syria              | 1970  | WIN     | 1       | 0     | 0    | 1      | 0   | 0      |       | 1     | 0    | 1   |
| Bangladesh<br>Independence               | 1971  | LOSS    | 0       | 0     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Sri Lanka v. JVP                         | 1971  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Burundi v. Hutu<br>Rebels                | 1972  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Zimbabwe v. ZANU,<br>ZAPU                | 1972  | DRAW    | 1       | 7     | 0    | 0      | 0   | 0      |       |       |      |     |
| Argentina v.<br>ERP/Montoneros           | 1973  | WIN     | 1       | 4     | 0    | 0      | 0   | 0      | 1     |       |      |     |
| Pakistan v.<br>Baluchistan               | 1973  | DRAW    | 1       | 4     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Eritrean<br>Independence                 | 1974  | LOSS    | 0       | 17    | 1    | 1      | 1   | 1      |       | 1     | 0    | 0   |
| Kurdish Autonomy<br>(Iraq)               | 1974  | WIN     | 1       | 1     | 0    | 0      | 0   | 0      |       |       |      |     |
| Angola (MPLA) v.<br>UNITA                | 1975  | DRAW    | 1       | 27    | 1    | 1      | 1   | 0      | 0     | 1     |      | 0   |
| Chadian Civil War                        | 1975  | LOSS    | 0       | 13    | 1    | 1      | 1   | 0      |       | 0     | 0    | 1   |
| Indonesia v.<br>FRETILIN (East<br>Timor) | 1975  | LOSS    | 0       | 24    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Lebanon v. various<br>militias           | 1975  | DRAW    | 1       | 15    | 1    | 1      | 1   | 0      |       |       |      | 0   |
| Morocco v. Polisario                     | 1975  | WIN     | 1       | 14    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Bangladesh v.<br>Shanti Bahini           | 1976  | DRAW    | 1       | 21    | 1    | 0      | 0   | 0      |       |       |      |     |

| CONFLICT  | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|---|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Indonesia v. GAM<br>(Aceh)                                | 1976  | DRAW    | 1       | 29    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Mozambique v.<br>RENAMO                                   | 1976  | DRAW    | 1       | 16    | 1    | 1      | 1   | 0      | 0     | 0     | 0    | 0   |
| DRC v. FLNC   | 1977  | WIN     | 1       | 1     | 0    | 0      | 0   | 0      |       |       |      |     |
| Afghanistan v.<br>Mujahedeen                              | 1978  | LOSS    | 0       | 11    | 1    | 1      | 1   | 0      | 0     | 1     | 1    | 0   |
| Cambodia v. Khmer<br>Rouge defectors,<br>FUNCINPEC, KPNLF | 1978  | DRAW    | 1       | 14    | 1    | 1      | 1   | 0      | 0     | 1     | 1    | 0   |
| Nicaragua v. FSLN   | 1978  | LOSS    | 0       | 1     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| El Salvador v. FMLN                                       | 1979  | DRAW    | 1       | 13    | 1    | 1      | 0   | 0      | 0     | 1     | 0    | 1   |
| Iran v. Kurdish<br>Democratic Party<br>Iran               | 1979  | WIN     | 1       | 17    | 1    | 0      | 0   | 0      |       |       |      |     |
| Iran v. Mujahedeen<br>e Khalq                             | 1979  | DRAW    | 1       | 22    | 1    | 0      | 0   | 0      |       |       |      |     |
| Kurdish Rebellion<br>(Iraq)                               | 1980  | DRAW    | 1       | 8     | 0    | 0      | 0   | 0      |       |       |      |     |
| Nigeria v.<br>Maitatsine sect<br>(Kano)                   | 1980  | WIN     | 1       | 5     | 0    | 0      | 0   | 0      |       |       |      |     |
| Peru v Sendero<br>Luminoso                                | 1980  | WIN     | 1       | 19    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Senegal v.<br>Casamance                                   | 1980  | DRAW    | 1       | 22    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Syria v. MB   | 1980  | WIN     | 1       | 2     | 0    | 0      | 0   | 0      |       |       |      |     |
| Nicaragua v.<br>Contras                                   | 1981  | DRAW    | 1       | 7     | 0    | 1      | 0   | 0      | 0     | 1     | 0    | 0   |
| Somalia v. SSDF,<br>SNM (Isaaqs)                          | 1981  | LOSS    | 0       | 10    | 1    | 0      | 0   | 0      | 0     |       |      |     |

| CONFLICT   | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|--|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Uganda v. NRA  | 1981  | LOSS    | 0       | 6     | 0    | 0      | 0   | 0      |       |       |      |     |
| Israeli-<br>Syria(Lebanon)                               | 1982  | DRAW    | 1       | 0     | 0    | 1      | 1   | 1      |       |       |      | 1   |
| South Africa v. ANC,<br>PAC, Azapo                       | 1983  | LOSS    | 0       | 11    | 1    | 0      | 0   | 0      | 1     |       |      |     |
| Sudan v. SPLM  | 1983  | DRAW    | 1       | 21    | 1    | 1      | 0   | 0      | 0     |       |      | 0   |
| Tamil Rebellion I<br>(Eelam War I)                       | 1983  | DRAW    | 1       | 4     | 0    | 0      | 0   | 0      |       |       |      |     |
| Turkey v. PKK  | 1983  | DRAW    | 1       | 16    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| India-Sikh<br>Insurgency                                 | 1984  | DRAW    | 1       | 10    | 1    | 0      | 0   | 0      |       |       |      |     |
| Uganda v. ADF  | 1986  | WIN     | 1       | 14    | 1    | 0      | 0   | 0      |       |       |      |     |
| Yemen v. Faction of<br>Socialist Party                   | 1986  | WIN     | 1       | 1     | 0    | 0      | 0   | 0      |       |       |      |     |
| First Intifada<br>(Isreal)                               | 1987  | DRAW    | 1       | 6     | 0    | 1      | 1   | 1      |       |       |      | 1   |
| Tamil II, 1987-1989<br>(Eelam War II)                    | 1987  | DRAW    | 1       | 2     | 0    | 1      | 1   | 0      |       | 1     | 0    | 1   |
| Papua New Guinea<br>v. BRA<br>(Bougainville)             | 1988  | DRAW    | 1       | 10    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Liberian Civil War:<br>NPFL (Taylor), INPFL<br>(Johnson) | 1989  | DRAW    | 1       | 8     | 0    | 1      | 1   | 0      | 0     | 0     | 1    | 0   |
| Mali v. Tuaregs  | 1989  | DRAW    | 1       | 6     | 0    | 0      | 0   | 0      |       |       |      |     |
| Afar Insurgency  | 1991  | DRAW    | 1       | 3     | 0    | 0      | 0   | 0      |       |       |      |     |
| Kurdish Rebellion II                                     | 1991  | DRAW    | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |

| CONFLICT  | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | OCCUPY | STRAT | EARLY | QUIT | DEM |
|---|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| Shia Rebellion<br>(Iraq)                            | 1991  | DRAW    | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Sierra Leone v. RUF,<br>AFRC                        | 1991  | WIN     | 1       | 8     | 0    | 1      | 1   | 0      | 1     | 0     | 0    | 1   |
| US v. Somali rebels                                 | 1991  | LOSS    | 0       | 2     | 0    | 1      | 1   | 1      |       | 1     | 0    | 1   |
| Yugoslavia v.<br>Croatia, Krajina                   | 1991  | LOSS    | 0       | 0     | 0    | 1      | 1   | 1      |       |       |      | 0   |
| Abkhaz secessionist movement                        | 1992  | LOSS    | 0       | 2     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Afghanistan v.<br>Taliban                           | 1992  | LOSS    | 0       | 4     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Algeria v.<br>MIA/FIS/AIS, GIA,<br>GSPC             | 1992  | WIN     | 1       | 10    | 1    | 0      | 0   | 0      | 0     |       |      |     |
| Azerbaijan v.<br>Nagorno-Karabagh                   | 1992  | LOSS    | 0       | 2     | 0    | 1      | 1   | 1      |       |       |      | 0   |
| Bosnia v. Rep.<br>Srpska/Croats                     | 1992  | DRAW    | 1       | 3     | 0    | 1      | 1   | 1      | 0     |       |      | 1   |
| Croatia in Krajina                                  | 1992  | WIN     | 1       | 3     | 0    | 1      | 1   | 1      |       |       |      | 0   |
| Moldova v. Dniestr                                  | 1992  | LOSS    | 0       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Tajikistan v. UTO                                   | 1992  | DRAW    | 1       | 5     | 0    | 1      | 1   | 0      | 0     |       |      | 0   |
| Burundian Civil War                                 | 1993  | LOSS    | 0       | 12    | 1    | 0      | 0   | 0      |       |       |      |     |
| Pakistan v. MQM                                     | 1993  | DRAW    | 1       | 6     | 0    | 0      | 0   | 0      |       |       |      |     |
| Central African<br>Republic (Factional<br>fighting) | 1994  | LOSS    | 0       | 3     | 0    | 0      | 0   | 0      |       |       |      |     |
| Chad v. MDD, FNT,<br>and CSNDP                      | 1994  | DRAW    | 1       | 4     | 0    | 0      | 0   | 0      |       |       |      |     |

| CONFLICT                           | Onset | ОИТСОМЕ | SUCCESS | DURAT | LONG | INTERV | MIL | ОССИРУ | STRAT | EARLY | QUIT | DEM |
|------------------------------------|-------|---------|---------|-------|------|--------|-----|--------|-------|-------|------|-----|
| DRC v. AFDL (Kabila)               | 1994  | LOSS    | 0       | 3     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| DRC v. RCD, RCD-<br>ML, MLC        | 1994  | DRAW    | 1       | 4     | 0    | 0      | 0   | 0      |       |       |      |     |
| Kagame Govt (RPF)<br>v. ALIR/FDLR  | 1994  | DRAW    | 1       | 6     | 0    | 0      | 0   | 0      |       |       |      |     |
| Kosovo I (Serbs v.<br>KLA)         | 1994  | LOSS    | 0       | 5     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Russo-Chechen I                    | 1994  | DRAW    | 1       | 2     | 0    | 0      | 0   | 0      | 0     |       |      |     |
| Rwanda v. RPF                      | 1994  | LOSS    | 0       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Yemen v. South<br>Yemen            | 1994  | WIN     | 1       | 0     | 0    | 0      | 0   | 0      |       |       |      |     |
| Afghanistan v. N.<br>Alliance      | 1996  | LOSS    | 0       | 5     | 0    | 1      | 0   | 0      | 0     | 1     | 0    | 1   |
| Congo v. Cobras,<br>Ninjas         | 1997  | LOSS    | 0       | 2     | 0    | 1      | 1   | 0      |       |       |      | 0   |
| Nepal Civil War                    | 1997  | DRAW    | 1       | 9     | 1    | 0      | 0   | 0      | 0     |       |      |     |
| DRC v. RDC and MLC                 | 1998  | DRAW    | 1       | 5     | 0    | 1      | 1   | 0      | 0     |       |      | 0   |
| Guinea Bissau v.<br>Military Junta | 1998  | LOSS    | 0       | 1     | 0    | 0      | 0   | 0      |       |       |      |     |
| Liberian Civil War                 | 1999  | LOSS    | 0       | 4     | 0    | 0      | 0   | 0      |       |       |      |     |
| Ivory Coast v. PMIC                | 2002  | DRAW    | 1       | 3     | 0    | 0      | 0   | 0      | 0     |       |      |     |

#### **APPENDIX 2: Results**

## **Test Set 1 Results (Chi Square Test for Independence)**

The following tables (Tables 4 and 5) show The Chi Square Test for Independence for all seven independent variables. If the chi-square value exceeds the critical threshold (0.05) then the study rejects the null hypothesis that there is no relationship between the variables. This test determines if sample results are the consequence of chance factors or instead reflect a significant relationship between two variables. The tables were generated using the STATA (Version 8) statistical software application to generate a 2x3 contingency table and determine the Chi Square, degree of freedom, and sample probability. A hypothesis is considered to be valid (but not confirmed) if the sample probability from the Chi-Square test is equal to or less than the predetermined Alpha level of 0.05. This means that there is a 95% chance that the sample results are not due to chance factors alone, but instead reflects the true relationship between the variables. Only hypothesis found to be valid in Test Set 1 are considered for Test Set 2.

This first set of tables (Table 4) shows the Chi Square test results for the OUTCOME dependent variable and the seven independent variables. The probablity for confirmed significant relationships are highlighted.

<sup>100</sup> StataCorp. Stata Statistical Software: Release 8.

Test Set 1: Chi Square Test for Independence (Full Sample)

| INTERV      |        |         |            |  |  |  |  |  |  |
|-------------|--------|---------|------------|--|--|--|--|--|--|
| OUTCOME     | Total  |         |            |  |  |  |  |  |  |
| LOSS        | 20     | 30      | 50         |  |  |  |  |  |  |
| DRAW        | 31     | 17      | 48         |  |  |  |  |  |  |
| WIN         | 31     | 12      | 43         |  |  |  |  |  |  |
| Total       | 82     | 59      | 141        |  |  |  |  |  |  |
| Pearson chi | i2(2)= | 11.0201 | Pr = 0.004 |  |  |  |  |  |  |

|             | MI    | LITARY  |            |
|-------------|-------|---------|------------|
| OUTCOME     | 0     | 1       | Total      |
| LOSS        | 23    | 27      | 50         |
| DRAW        | 34    | 14      | 48         |
| WIN         | 34    | 9       | 43         |
| Total       | 91    | 50      | 141        |
| Pearson chi | 2(2)= | 12.3068 | Pr = 0.002 |

| STRAT       |       |        |            |
|-------------|-------|--------|------------|
| OUTCOME     | 0     | 1      | Total      |
| LOSS        | 11    | 2      | 13         |
| DRAW        | 10    | 1      | 11         |
| WIN         | 2     | 4      | 6          |
| Total       | 23    | 7      | 30         |
| Pearson chi | 2(2)= | 8.0046 | Pr = 0.018 |
|             |       |        |            |

| OCCUPY      |       |         |            |  |
|-------------|-------|---------|------------|--|
| OUTCOME     | 0     | 1       | Total      |  |
| LOSS        | 31    | 19      | 50         |  |
| DRAW        | 43    | 5       | 48         |  |
| WIN         | 37    | 6       | 43         |  |
| Total       | 111   | 30      | 141        |  |
| Pearson chi | 2(2)= | 13.1051 | Pr = 0.001 |  |

| EARLY       |       |        |            |  |
|-------------|-------|--------|------------|--|
| OUTCOME     | 0     | 1      | Total      |  |
| LOSS        | 4     | 20     | 24         |  |
| DRAW        | 2     | 7      | 9          |  |
| WIN         | 1     | 7      | 8          |  |
| Total       | 7     | 34     | 41         |  |
| Pearson chi | 2(2)= | 0.2895 | Pr = 0.865 |  |

| QUIT        |       |        |            |  |
|-------------|-------|--------|------------|--|
| OUTCOME     | 0     | 1      | Total      |  |
| LOSS        | 18    | 5      | 23         |  |
| DRAW        | 6     | 2      | 8          |  |
| WIN         | 6     | 2      | 8          |  |
| Total       | 30    | 9      | 39         |  |
| Pearson chi | 2(2)= | 0.0565 | Pr = 0.972 |  |

| DEMOCRACY   |       |        |            |  |
|-------------|-------|--------|------------|--|
| OUTCOME     | 0     | 1      | Total      |  |
| LOSS        | 13    | 17     | 30         |  |
| DRAW        | 10    | 7      | 17         |  |
| WIN         | 2     | 10     | 12         |  |
| Total       | 25    | 34     | 59         |  |
| Pearson chi | 2(2)= | 5.1429 | Pr = 0.076 |  |

Table 4: Test Set 1 Results (Full Sample)

The second set of tables (Table 5) show Chi Square test results comparing the OUTCOME dependent variables with the seven dependent variable in cases where LONG=1 (meaning cases where conflict duration exceeded 7.97 years). The probability for confirmed hypothesis are highlighted.

Test Set 1: Chi Square Test for Independence (with LONG)

| INTERV      |       |        |            |  |
|-------------|-------|--------|------------|--|
| OUTCOME     | 0     | 1      | Total      |  |
| LOSS        | 5     | 13     | 18         |  |
| DRAW        | 17    | 7      | 24         |  |
| WIN         | 9     | 3      | 12         |  |
| Total       | 31    | 23     | 54         |  |
| Pearson chi | 2(2)= | 9.7511 | Pr = 0.008 |  |

| MILITARY    |        |         |            |  |
|-------------|--------|---------|------------|--|
| OUTCOME     | 0      | 1       | Total      |  |
| LOSS        | 5      | 13      | 18         |  |
| DRAW        | 19     | 5       | 24         |  |
| WIN         | 9      | 3       | 12         |  |
| Total       | 33     | 21      | 54         |  |
| Pearson chi | i2(2)= | 12.6818 | Pr = 0.002 |  |

| OCCUPY           |    |      |            |  |
|------------------|----|------|------------|--|
| OUTCOME          | 0  | 1    | Total      |  |
| LOSS             | 11 | 7    | 18         |  |
| DRAW             | 24 | 0    | 24         |  |
| WIN              | 10 | 2    | 12         |  |
| Total            | 45 | 9    | 54         |  |
| Pearson chi2(2)= |    | 11.2 | Pr = 0.004 |  |

| STRAT       |       |        |            |  |
|-------------|-------|--------|------------|--|
| OUTCOME     | 0     | 1      | Total      |  |
| LOSS        | 8     | 5      | 13         |  |
| DRAW        | 13    | 2      | 15         |  |
| WIN         | 3     | 4      | 7          |  |
| Total       | 24    | 11     | 35         |  |
| Pearson chi | 2(2)= | 4.7251 | Pr = 0.094 |  |

| EARLY       |       |       |            |  |
|-------------|-------|-------|------------|--|
| OUTCOME     | 0     | 1     | Total      |  |
| LOSS        | 4     | 7     | 11         |  |
| DRAW        | 2     | 3     | 5          |  |
| WIN         | 1     | 1     | 2          |  |
| Total       | 7     | 11    | 18         |  |
| Pearson chi | 2(2)= | 0.136 | Pr = 0.934 |  |

| QUIT             |    |        |            |  |
|------------------|----|--------|------------|--|
| OUTCOME          | 0  | 1      | Total      |  |
| LOSS             | 7  | 3      | 10         |  |
| DRAW             | 2  | 2      | 4          |  |
| WIN              | 2  | 0      | 2          |  |
| Total            | 11 | 5      | 16         |  |
| Pearson chi2(2)= |    | 1.5709 | Pr = 0.456 |  |

| DEMOCRACY        |    |        |            |  |
|------------------|----|--------|------------|--|
| OUTCOME          | 0  | 1      | Total      |  |
| LOSS             | 8  | 5      | 13         |  |
| DRAW             | 6  | 1      | 7          |  |
| WIN              | 1  | 2      | 3          |  |
| Total            | 15 | 8      | 23         |  |
| Pearson chi2(2)= |    | 2.7184 | Pr = 0.257 |  |

**Table 5: Test Set 1 Results (with LONG)** 

# **Test Set 2 Results (Bivariate Contingency Tables)**

The next two tables show the results for Test Set 2. Table 6 shows the OUTCOME results for the overall CONFLICT dataset along with the seven dependent variables. In Table 7, each row is calculated as a percentage of its row total. A hypothesis is considered confirmed if percentage change in outcomes matches the predicted change in the hypothesis.

| Bivariate Contingency Table (OUTCOME) |     |      |      |        |  |  |  |  |  |  |  |  |  |
|---------------------------------------|-----|------|------|--------|--|--|--|--|--|--|--|--|--|
| Variable                              | WIN | DRAW | LOSE | TOTALS |  |  |  |  |  |  |  |  |  |
| INTERVENTION                          | 12  | 17   | 30   | 59     |  |  |  |  |  |  |  |  |  |
| MILITARY                              | 9   | 14   | 27   | 50     |  |  |  |  |  |  |  |  |  |
| OCCUPY                                | 6   | 5    | 19   | 30     |  |  |  |  |  |  |  |  |  |
| STRATEGY                              | 4   | 1    | 2    | 7      |  |  |  |  |  |  |  |  |  |
| EARLY                                 | 7   | 7    | 20   | 34     |  |  |  |  |  |  |  |  |  |
| QUIT                                  | 2   | 2    | 5    | 9      |  |  |  |  |  |  |  |  |  |
| DEMOCRACY                             | 10  | 7    | 17   | 34     |  |  |  |  |  |  |  |  |  |
| All CONFLICTS                         | 43  | 48   | 50   | 141    |  |  |  |  |  |  |  |  |  |

**Table 6: Bivariate Contingency Table (OUTCOME)** 

| Bivariate Contingency Table by Percentage (OUTCOME) |                              |     |         |     |  |  |  |  |  |  |  |  |  |  |  |
|---|------------------------------|-----|---------|-----|--|--|--|--|--|--|--|--|--|--|--|
| Variable  | /ariable WIN DRAW LOSE TOTAL |     |         |     |  |  |  |  |  |  |  |  |  |  |  |
| INTERVENTION  | 20%                          | 29% | 51%     | 59  |  |  |  |  |  |  |  |  |  |  |  |
| MILITARY  | 18%                          | 28% | 54%     | 50  |  |  |  |  |  |  |  |  |  |  |  |
| OCCUPY  | 20%                          | 17% | 63%     | 30  |  |  |  |  |  |  |  |  |  |  |  |
| STRATEGY  | 57%                          | 14% | 29%     | 7   |  |  |  |  |  |  |  |  |  |  |  |
| EARLY*  | 21%                          | 21% | 59%     | 34  |  |  |  |  |  |  |  |  |  |  |  |
| QUIT*   | 22%                          | 22% | 56%     | 9   |  |  |  |  |  |  |  |  |  |  |  |
| DEMOCRACY*  | 29%                          | 21% | 21% 50% |     |  |  |  |  |  |  |  |  |  |  |  |
| All CONFLICTS                                       | 30%                          | 34% | 35%     | 141 |  |  |  |  |  |  |  |  |  |  |  |

**Table 7: Bivariate Contingency Table by Percentage (OUTCOME)** 

The next Bivariate Contingency Table (Table 8) compares the eight samples (the overall CONFLICT sample plus the seven independent variable samples), but uses the DURATION as the dependent variable, and compares it across all three conflict outcomes. Each column represents one of the three possible OUTCOMES and cell values show the mathematical mean of conflict DURATION by OUTCOME type.

| Bivariate Contingency Table (Average DURATION) |      |      |     |        |  |  |  |  |  |  |  |  |  |
|--|------|------|-----|--------|--|--|--|--|--|--|--|--|--|
| VARIABLES                                      | LOSS | DRAW | WIN | TOTALS |  |  |  |  |  |  |  |  |  |
| INTERVENTION                                   | 8.4  | 8.8  | 4.3 | 7.7    |  |  |  |  |  |  |  |  |  |
| MILITARY                                       | 8.9  | 7.7  | 4.8 | 7.8    |  |  |  |  |  |  |  |  |  |
| OCCUPY   | 7.2  | 3.0  | 5.0 | 6.0    |  |  |  |  |  |  |  |  |  |
| STRATEGY                                       | 15.8 | 20.0 | 7.9 | 12.6   |  |  |  |  |  |  |  |  |  |
| EARLY  | 6.6  | 9.9  | 4.0 | 6.7    |  |  |  |  |  |  |  |  |  |
| QUIT   | 9.4  | 11.0 | 4.5 | 8.7    |  |  |  |  |  |  |  |  |  |
| DEMOCRACY                                      | 6.0  | 4.3  | 3.9 | 5.0    |  |  |  |  |  |  |  |  |  |
| All CONFLICTS                                  | 7.0  | 11.1 | 5.4 | 7.9    |  |  |  |  |  |  |  |  |  |

**Table 8: Bivariate Contingency Tables (Average Duration)** 

The next table presents chart data for the Scattergram in Figure 3. The table compares conflict outcome to conflict duration using the DURATION and SUCCESS variables.

|                | Count of SUCCESS |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                    |
|----------------|------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|
| DURATION       | 0                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 27 | 29 | 30 | 33 | 46 | <b>Grand Total</b> |
| All CONFLICTS  | 11               | 7 | 7 | 7 | 8 | 8 | 4 | 3 | 3 | 3 | 6  |    |    | 2  | 4  | 1  | 2  | 2  | 2  | 1  | 2  | 2  |    |    | 1  | 1  | 1  | 2  |    | 1  | 91                 |
| w/INTERVENTION | 3                | 3 | 2 | 2 | 2 | 5 | 1 | 1 | 2 |   | 2  |    |    | 1  | 1  | 1  | 1  |    |    |    | 1  |    |    |    |    | 1  |    |    |    |    | 29                 |

**Table 9: Data for Figure 3 (Scattergram)** 

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