Strategic Assessment of the War in Afghanistan, 2004-2009

Abstract: Wikileaks obtained and publically disclosed over 75,000 documents related to the counter-insurgency campaign in Afghanistan. The documents detail the daily struggle of American forces from the beginning of 2004 to the end of 2009. While there is a variety of information in these reports, this project uses the documents to quantitatively analyze the strategic success of American forces. As a first cut at measuring strategic success, we examine the rate at which locals provide intelligence to American and Afghan forces and how it is affected by the battlefield environment. In general, the analyses find that collaboration leads to more collaboration and that civilian deaths decrease collaboration. Interestingly, killing the insurgents seems to have little effect on collaboration but detaining them increases future collaboration. Finally, collaboration has been steadily increasing since the start of Obama's surge, which indicates that it may have been more successful than previous thought.

David Sobek
Associate Professor
Department of Political Science
240 Stubbs Hall
Louisiana State University
Baton Rouge, LA 70803-5433
dsobek@lsu.edu

Jeremy Wells
Doctoral Student
Department of Political Science
240 Stubbs Hall
Louisiana State University
Baton Rouge, LA 70803-5433
jwell33@tigers.lsu.edu

Counterinsurgency warfare offers a complex, rapidly changing environment that compels government forces to engage with an enemy that most likely has superior local intelligence, more popular support, and that often fights with the tactical advantage. This type of warfare clearly challenges the American military as it "has previously paid little attention to the nature and requirements of counterinsurgency and stability operations" (Ucko 2009: 1). Regardless of the difficulties, eventual victory requires accurate, real-time strategic assessment of the successes and failures of a given tactic because "strategic assessment represents a crucial element in a state's ability to adapt strategy to the changing wartime situation, which in turn plays a critical role in determining the outcome and costs of wars" (Gartner 1997:163). Counter-insurgency warfare adds an additional layer of difficulty because measuring success in these conflicts is quite difficult. In other words, how do you win a conflict when there is not a clear way to measure success?

As a first cut at this issue, we argue that strategic success in counter-insurgency warfare can be gauged by the collaboration of locals. Given the identification problem associated with an insurgency, it is often more difficult to indentify an insurgent than kill them once identified (Kilcullen 2009). In addition, the proper identification of insurgents limits the collateral damage that pushes the population towards the insurgency. As such, it seems that high levels of collaboration would be indicative of success, whereas low rates of collaboration would indicate a lack of success. While there are likely a number of factors that can contribute to the rate of collaboration, we concentrate on the battlefield environment.

The battlefield environment details how the conflict interacts with the population. In particular, a conflict generates varying degrees of dislocations at the local level (such as civilian or insurgent deaths). Each interaction between the conflict and population develops a certain battlefield environment that then shapes the population's views of the insurgents and counter-insurgents. The ability to control and manage the battlefield has a clear effect on the level of collaboration (Kalyvas 2006). While there are certainly hard

core insurgents, the bulk of the population simply wants to survive the conflict and remains relatively indifferent as to whom they support. In order to generate collaboration from this portion of the civilian population, a group must establish control over a territory that creates both security and an atmosphere that conveys the inevitability of victory. The implication of this is that there exists a certain battlefield environment that will move the population towards the counter-insurgents. The question then becomes what is that battlefield environment?

Our analysis finds a number of factors correlate with increased support for the counter-insurgents. In particular, past levels of collaboration are positively correlated with current levels and high levels of civilian casualties decrease the amount of collaboration. Interestingly, the level of enemy deaths does not affect collaboration but high levels of enemy detention increases the level of collaboration. Combined with the effect of civilian deaths, it appears that smaller footprints are more apt to produce collaboration than highly kinetic operations. Finally, collaboration has been increasing in Afghanistan since President Obama began his surge. Overall, the results support the idea that controlling the battlefield sways the population into collaboration, which creates a positive feedback.

The Importance of Strategic Assessment

Unlike classical Greece where a single hoplite battle generally determined the outcome of a war, conflicts in the modern system require a more sustained effort and extend over months if not years. This added temporal dimension means that the success of a given strategy or tactic cannot be immediately analyzed but needs to be followed over time. Strategic assessment involves the collection, aggregation, and analysis of quantitative indicators of the ebb and flow of a conflict. These assessments not only provide a relatively real-time reflection of the state of a conflict but are also used to formulate (or reformulate) strategies and tactics. In fact, Gartner (1997: 1-2) argues that "although the relation between an observable wartime indicator, such as casualties, and evaluations of success might sometimes be surprising, numerical

indicators like these strongly influence how decision makers assess performance in war." This assessment is critical as the changing battlefield alters the relative bargaining power of the two sides (Wagner 2000).

The concept of strategic assessment helps to link policy goals (the ends) to the strategic and tactical actions of the state (the means). While one would expect that political goals would generate strategy, it is often the case that strategy has come to dictate politics. Betts (2000, 37-40) offers Germany's actions leading up to World War I as a prime example. In particular, the execution of the Schlieffen Plan induced British hostility and retaliation by unrestricted submarine warfare provoked the otherwise isolationist U.S. to join. In order to sustain the war effort, German military leaders resorted to ideologically fuelled social mobilization, thus completing the reversal of the theoretical policy-strategy relationship. Strategic assessment, however, keeps policy makers in control by continuously revising ill-suited strategies and scrutinizing even successful ones.

Strategic assessment is not limited to political concerns. Tactical decisions made by military commanders rely on soldiers' reports of battle progress, particularly damage inflicted on the enemy, and real-time accounting is more crucial than ever. For instance, during Operation Iraqi Freedom there was a drive to improve real-time assessment capabilities because "the reporting of battle damage assessment (BDA) was neither fast enough nor adequate for operational commanders to make timely, informed decisions" (Curry 2004, 13). Of course, it is not simply about the quality or quantity of the information but also about the type of indicators that is used for assessment.

The best indicator for strategic assessment varies across different conflicts. Gartner and Meyers (1995) show that enemy casualty counts mattered in Korea but territory controlled was vital in Vietnam. These measures based on damage or casualty counts reflect the concerns of the Cold War, where policy makers and commanders planned for "symmetric force-on-force combat with fixed logistics on home territory" (Williams and Morris 2009, 66). A more comprehensive, target-based system of battle damage assessment has been in place since World War II, but the "type of warfare waged during Iraqi Freedom—

characterized by technology-enabled effects-based planning and execution in a hyperoperations-tempo battlespace—has made the current BDA paradigm obsolete" (Curry 2004).

Like strategy itself, assessment needs to adapt from its Cold War origins to a modern "much larger spectrum of expeditionary operations that may involve mixes of war fighting, counter-insurgency, civil support, reconstruction, and humanitarian aid" (Williams and Morris 2009, 66). In these kinds of operations, "body counts, engagements, attacks, and villages under control are useful and important metrics. But they are nevertheless incomplete, because they are not necessarily good proxies for political dynamics like institution-building, stability, and national identity cohesion/disintegration" (Greenhill and Staniland 2007, 410). The U.S. military learned this lesson the hard way after the 2003 invasion of Iraq: despite the success in executing the "shock and awe" invasion, the resulting insurgency and use of inappropriate tactics by U.S. forces necessitated a shift toward revised rules of interaction with civilians and the implementation of a "hearts and minds" campaign (Sepp 2007). The challenge for commanders, policy makers, and analysts alike, then, is to revise strategic assessment as well to match currently dominant types of conflict.

Strategic Assessment in Counter-insurgency Warfare

In many ways strategic assessment in counter-insurgency warfare is both more critical and more difficult than conventional warfare. Despite the complexity of counter-insurgency warfare, one factor appears fairly consistent and that is the need to win popular support. In fact, Mao (2000: 44) noted that "because guerilla warfare basically derives from the masses and is supported by them, it can neither exist nor flourish if it separates itself from their sympathies and cooperation." The importance of popular support is why counter-insurgency warfare is colloquially known as a battle for the hearts and minds. When the population supports the insurgents, it becomes increasingly difficult to obtain accurate and timely intelligence about the rebels which greatly increases the difficulty of counter-insurgency operations. When

the population moves against the insurgents, it decreases their ability to hide in plain sight and gather information about the movement and distribution of government forces.

Securing the trust of the population becomes critical in any counter-insurgency campaign. For instance, as General Patraeus changed American strategy in Iraq, he brought in David Kilcullen as an advisor who would brief each group of incoming commanders. Kilcullen would instruct them on his top ten rules of counter-insurgency operations, which included "secure people where they sleep; never leave home without an Iraqi, look beyond the IED: get the network that placed it; give the people the justice and honor . . . we talk about democracy and human rights. Iraqis talk about justice and honor; get out and walk—that is, patrol on foot" (Ricks 2009:140-141). These types of actions are vital in fostering an environment where the population feels comfortable enough to collaborate with the counter-insurgency forces.

Early in the war in Afghanistan, for instance, the abandonment of the propaganda war severely handicapped counter-insurgency operations. Between 2005 and 2006, the Taliban made propaganda their primary effort and organized all other operations around it. Of course, it was not simply sloganeering but also armed propaganda whereby "dozen of provincial-level officials were assassinated in 2005-2006, again as an 'armed propaganda' tool- not just because the enemy wanted to target individual officials but also because they wanted to send every local official the message 'We can reach out and touch you if you cross us" (Kilcullen 2009: 59). Through these actions the Taliban isolated the population from the government and coerced them into either active or passive support of the insurgency.

A pro-insurgent population not only limits the ability of the counter-insurgents to gain intelligence but it also increases the ability of the insurgents to gather their own intelligence. It was this sort of network of local informants that helped the Mujahideen defeat the Soviets. In particular, the "Islamic communities were instantly informed about the formation of convoys and their departure times and directions of movement [which meant that] the Mujahideen planners couple plan combat or take necessary step to evacuate detachments" (Grau and Gress 2002: 65). This was only possible because the Soviets lacked the

support of the local communities and thus could not hide their movements or discover the disposition of Mujahideen forces.

The Soviets also lacked the intelligence resources required to conduct effective operations. In the report conducted by the Soviet General Staff, they noted that pre-combat reconnaissance was conducted by agents (65%), aerial (20%), radio intercepts (15%), and ground forces (0%). While the majority came from agents, it is not clear that these were local informants; rather, they were DRA security and police forces and "the efficacy and reliability of their information was not high" (Grau and Gress 2002: 228). As such, there was a gross imbalance between the Mujahideen and the Soviets in terms of their local intelligence, which eventually doomed the Soviet efforts.

The Soviets discovered in Afghanistan (as did the Americans in Vietnam, Iraq, and Afghanistan) that one of the most critical issues in an insurgency is the identification problem. In other words, irregulars as wells as agents and spies hide within the civilian population and the key is to have the capacity to properly identify them. The solution to this problem is to encourage the collaboration of the civilian population, which is the "active collaboration from a small number of dedicated supporters, and passive but exclusive collaboration from the population at large" (Kalyvas 2006:104). Collaboration solves the identification problem and allows for more effective military operations. In fact, Kilcullen (2009: 60) argued that "the counterinsurgent's hardest problem is to find the enemy among the population: destroying him once found is easier by far than finding him in the first place."

The identification problem and the role of collaborators in solving it underscore an important way to measure the strategic success of a counter-insurgency campaign. In particular, measuring the ebb and flow of collaboration should correlate with the underlying success of the counter-insurgent operations as opposed to looking at enemy deaths or the protection of the civilian population. In fact, one could argue that successfully protecting the civilian population and killing insurgents depends on the rate of collaboration. In addition, Kalyvas (2006:105) notes that "a positive externality is that knowledge among

the population that one side has crucial access to information undermines the population's willingness to collaborate with the other side."

Of course, high rates of collaboration will additionally lead to increased rates of enemy causalities, decreased rates of civilian casualties, and a general weakening of the insurgency. These factors allow the counter-insurgents to solidify their control of a region. This control feeds back into the rate of collaboration as Kalyvas (2006: 111) notes that "a robust empirical observation is that the allocation of collaboration among belligerents is closely related to the distribution of control, that is, the extent to which actors are able to establish exclusive rule on a territory." In other words, control of the battlefield provides cover for increased rates of collaboration, which deepens the control.

The Soviet's grasped the importance of collaboration and separating the population from the insurgents but often failed to make it work in practice. In talking about their strategy, the Soviets noted that (Grau and Gress 2002: 25-6):

> The result of the many Soviet and DRA operations was to establish government power, the so-called nucleus in the hamlets and villages. The nuclei included representatives of the PDPA, the KHAD, the Ministry of Interior, several other departments, and representatives from the directing workers patriotic organization, and representatives of the clergy supporting the DRA. Up to a platoon of soldiers were provided to safeguard the detachment. The problem with these detachments was that there were too few of them and that they wielded no real powers. . . Upon completion of the operation, the forces left the occupied region and returned to base camp or transferred to a new contested area. The unharmed Mujahideen would return to the region, reestablish their bases, and drive out or destroy the DRA detachment. This happened repeatedly.

As such the Soviets never created the space between the population and Mujahideen and ever time this process repeated it only served to highlight the ephemeral nature of Soviet control and permanence of the Mujadideen. As such, the population had little incentive to collaborate with the Soviets or DRA.

While ultimately this process becomes somewhat endogenous, it is often the case that when counter-insurgents first enter into a region they lack control, face the identification problem and a hostile population. So the first issue that must be solved is how to alter the situation on the ground that establishes

their control and encourages the development of collaboration. Insurgencies are varied enough that the actual tactics or strategies that work in one place may not succeed in another. That being said, these tactics and strategies are designed to create a set of conditions that leads to collaboration. So what are the battlefield conditions that lead to the successful generation of collaboration?

The Battlefield and Strategic Success

In general, it is argued that "boots on the ground" are the most effective way to create a battlefield environment that encourages collaboration.[i] For instance, the new American counter-insurgency strategy (FM 3-24) argues for a strategy where "U.S. troops would first clear selected neighborhoods, targeting extremists elements; then maintain a full-time presence in these areas, operating out of small forts or 'joint security stations' constructed across the city; and then, with Iraqi security forces gradually assuming the lead, pursue efforts to stimulate the local economy, initiate reconstruction, and improve the infrastructure" (Ucko 2009: 115). Such a strategy aims to create distance between the insurgents and population and demonstrate the capacity of the government to protect and provide services to the population.

It could be the case that prewar levels of support tend to drive the level of collaboration making a clear, build, and hold strategy difficult. This argument, however, assumes that a large majority of the population has strong feelings as to the outcome of the conflict. If the bulk of the population has weak preferences over outcomes and strong preferences over the conflict ending, then controlling the battlefield becomes critical. In fact, Kalyvas (2006:188-9) found that during the Greek civil war "there is evidence showing that collaboration follows the *spatial variation* in control [and] there is substantial evidence that collaboration follows the *temporal variation* in control."[ii] In other words, it appears that the vast bulk of citizens have malleable preferences over who wins the conflict but have a stronger preference in securing their own survival. While there are certainly hard core supports on both sides in the conflict, the vast majority of citizens simply want the conflict to finish and to end the conflict supporting the winning side.

As such, citizens seem fairly sensitive to changes in control and will alternate their collaboration patterns in response.[iii]

Insurgencies often create a perverse set of incentives that can guide the population into supporting the government or insurgency. For instance, in the Sri Lankan village of Naeaegama it was found that "most Naeaegama solders said that joined the armed services because they could find no other jobs" (Gamburd 2004: 164). The implication is that one does not necessarily have to win the battle of ideas but can gather support simply through providing better opportunities. In addition, it demonstrates the malleability of the population and how they often act in terms of self-interest as opposed to ideological purity.

The pliability of preferences derives from the horror that civilians often experience in the course of a civil war; a conflict that the average civilian simply wants to end. As Anna Politkovskaya (2007: 47) toured the Vendeno district of Chechnya "several hundred people pleaded with me to assist them by arranging speedy transport out of Chechnya. The reasons were constant hunger, unbearable cold, a lack of doctors or any ties to the outside world, and the cruel punitive actions of the soldiers stationed near Khatuni." Under these conditions, individuals are rationally motivated by survival, and not ideological, desires. In addition, these conflicts further alienate the population by enriching a large portion of the elites (those viewed as least affected by the hardships caused by their decisions). Even Chechnya the conflict proved profitable (Politkovskaya 2007: 161), where:

> Everyone has found a niche. The mercenaries at the checkpoints get bribes of ten to twenty rubles around the clock. The generals in Moscow and Khankala use their war budget for personal gain. Officers of the middle ranks collect ransom for temporary hostages and corpses. Junior officers get to go marauding during the purges. And as a team (soldiers and some of the militants), they take part in illegal oil and weapons trade. And then there are also ranks, awards, careers . . .

So it is often the case that insurgencies and civil wars alienate a large portion of the society in ways that reinforces the belief that everyone needs to look out for themselves.

Even when the population strongly supports the insurgency, the establishment of a large physical presence, for instance, can have an important effect. In early 1968, the American forces established Camp Eagle outside of My Thuy Phuong, where the insurgents had the backing of roughly 85% of the population (Trullinger 1980: 129). After four years of activity support for the Front dropped to about 50%, where about 30% of those were actively collaborating and the other 70% were passive supporters. Of course, this shift may have been slightly misleading because "the 1964-1967 support patterns were expressions of the widely shared tendency, mentioned earlier, to tilt toward support of overwhelmingly strong political forces [but the shift from 1967 to 1972 was] mainly from the Front to the politically uncommitted group- from which shifts back to the Front could be made with relative ease" (Trullinger 1980: 143). In other words, while the Front lost collaborators as a result of the American presence, they had not yet started to actively engage with the Americans. Regardless of how effective Camp Eagle was in establishing a government foothold, it reinforces the idea that physical engagement and presence affects patterns of collaboration.

The American experience at Camp Eagle highlights the importance of clearing an area and separating the population from the insurgency. It is important to note that clearing does not mean killing the enemy. In fact, Kilcullen (2009:145) is quite specific in noting that clearing "does not mean *destroying the enemy* [but] *rescuing the population* in it from enemy intimidation or, more clinically, separating the enemy from the population." Even though the primary goal is not to kill the enemy, successfully clearing an area (or the process of clearing an area) is likely to produce a battlefield environment that encourages collaboration. For instance, by separating insurgents from the population it is likely that civilian deaths will decrease. In addition, the process might also lead to an increase in counter-insurgent casualties as they are suddenly more vulnerable.

What seems vital, however, is separating the population from the insurgents and creating a belief that the insurgency will fail. It is this opposite belief that the insurgents attempt to establish as Guevara (1998: 16) argued that "intensive popular work must be undertaken to explain the motives of the

revolution, its ends, and to spread the incontrovertible truth that victory of the enemy against the people is finally impossible." This dovetails with Kalyvas (2006) in that convincing the population that your side is certain to win will sway the neutrals to collaborate out of their own self interest.

Perhaps the most straight forward hypothesis derives from the self-reinforcing nature of collaboration. In particular, collaboration creates a positive feedback that solves the identification process increasing the ability of the counter-insurgents to separate the civilian population from the insurgents, which in turn should increase the rate of collaboration. This leads to our first hypothesis.

Hypothesis 1: Collaboration in previous periods will be positively correlated with collaboration in the current period.

In terms of the battlefield environment, demonstrating to the population that the counter-insurgents are able to protect them is critical. As such high rates of civilian casualties will discourage potential collaborators, at the least, and perhaps even push them towards the insurgents. This relationship is our second hypothesis.[iv]

Hypothesis 2: High levels of civilian casualties will lead to lower levels of collaboration.

While Kilcullen noted that it more difficult to find the insurgents than to kill them once they are found, one would expect some relationship between the ability of counter-insurgents to engage the enemy and the willingness of the population to collaborate. At a very basic level, the killing of insurgents may encourage civilian collaboration but high rates of death imply a high level of disruption to an area. In contrast, the ability to identify and detain insurgents signals to the population an ability to solve the identification problem and detained insurgent may provide further intelligence that can indicate a battlefield environment moving away from the insurgency. Thus, our third hypothesis argues that detaining insurgents encourages the collaboration of the civilian population.

Hypothesis 3: High levels of insurgency detainment leads to higher levels of collaboration.

Finally, control of a territory requires soldiers on the ground. While it is difficult to directly assess this effect, President Obama initiated a surge in Afghanistan with the intent to change the course of the conflict. While it may be too early to provide a definitive assessment of the surge, the logic is that the increased deployment of American soldiers to Afghanistan would increase American control and the rate of collaboration.

Hypothesis 4: The progressive ramp up of the Obama surge will lead to higher levels of collaboration.

Research Design

The Afghan War Diary (WikiLeaks 2010) presents a unique opportunity to determine the battlefield environment that best leads to collaboration. The Diary contains over 75,000 reports filed by American forces in Afghanistan that details their interactions with both civilians and insurgents. The events can range from an engagement with insurgents to requests from the population for medical aid. Each incident report in the Diary includes a description of an event ranging from a few lines to several paragraphs of information as well as estimates of casualties related to a hostile encounter. We organized the information into a data set with the unit of analysis as the region-week. In particular, the military divided Afghanistan into five regions (RC north, RC west, RC south, RC east, and RC capital) and we treat each week in each region as a separate observation.

To measure the amount of collaboration, we scanned the Afghan War Diary for references to Afghan nationals who voluntarily aided US, coalition, or Afghan government forces. The information could range from reporting possible improvised explosive device emplacements or weapons caches, delivering found IEDs and weapons to US, coalition, or Afghan forces, or giving valuable information about parties responsible for explosions, attacks, or other similar events. We excluded incidents where the Afghan locals requested information or help from American or Afghan forces. We additionally did not include cases where Afghan nationals responded to questions posed by US, coalition, or Afghan forces, as these do not represent active collaboration. For example, on 5 March 2006, a task force questioned inhabitants of a

village in which a truck driver was killed the night before. Although the villagers told the soldiers who they believed was responsible for the killing, despite their "fear of being killed for their support to the coalition forces," the information came as a result of the questioning and was not actively volunteered.[v] Similarly, we do not include cases where detained suspects offered information. While information offered as the result of questioning or interrogation is certainly valuable, it is passively offered and does not represent grassroots collaboration from the civilian population.

The dependent variable used in the analyses is simply a count of the number of collaborations that occurred in a given region in a given week. These counts combine the collaborations with all collation forces (American, Afghan, or some other nationality). While it may be the cases the providing information to Afghan forces as opposed to American soldiers represents a different level of success, we do not have any *a priori* reason to believe that they are fundamentally different. In fact, it may not even be the case that the general population would perceive a difference given the interdependence of the Afghan government and the US and coalition forces. This may be especially true given that IEDs, for instance, are eventually handled by US Explosive Ordnance Disposal units, which requires that Afghan forces report any information about IEDs to US forces.

Since the dependent variable is a count of events, the models use a negative binomial. The negative binomial is designed for dependent variables that are counts of events which may have over-dispersion (Long 1997). The level of collaboration seems to be a clear instance where over-dispersion would occur in that one incidence of collaboration most likely affects the probability of other incidents of collaboration within that unit of analysis. The models also contain lags of the dependent variable given the argument that past collaboration would be correlated with current levels. Finally, the models use robust standard errors and cluster of the region.

The key independent variables describe the battlefield environment. In particular, we use the reported number of civilian deaths, friendly deaths, enemy deaths, and enemies detained. The four

variables provide the context in which the civilian population has to live and make decisions as to who to support and when. In addition, we would not expect that the environment would have an immediate impact, so the models contain a series of lagged values and occasionally moving averages. The final independent variable is a measure of Obama's surge, which we code as starting in the sixth week of 2009. This is simply a count variable that starts when the surge began and adds one each week. This should account for the slow build-up as the troops arrive over time.

The models also contain a set of temporal and spatial control variables. The temporal control variables are simply a set of dichotomous variables for each year of the conflict. These should capture trends across time without necessarily assuming a certain functional form. The spatial controls are a set of dichotomous variables for each of the military regions in Afghanistan. It may be the case that the distribution of potential supporter varies across region. For instance, RC south tends to have been a strong base of support for the Taliban and boarders their havens in Pakistan, which means it may have a different base level of collaboration. These temporal and spatial controls are included in all of the models but we do not report them in the models to limit the size of the table.

Results

Table 1 provides a series of analyses that examines how the battlefield environment affects the level of collaboration. Model 1 lags each of the independent variables four weeks to get at a relatively long view of the battlefield and the results are clearly supportive of our hypotheses. Models 2 through 4 progressively remove a lag in order to gauge the robustness of the results. Finally, we looked at models that included events that occurred over the previous two months as an additional check on the results and still found similar patterns. The consistency of the results to alternative specifications reinforces our belief that the results support our four hypotheses.

In general, the results from model 1 indicate that the battlefield environment has a distinct affect on the level of collaboration and does so in predictable ways. First, and most basically, past collaboration

increases the current level of collaboration. Each of the lags is positive and all but the two week lag are statistically significant, which is supportive of hypothesis 1. Second, civilian deaths (hypothesis 2) decrease the level of collaboration, although only the one and two week lags are statistically significant. Third, Obama's surge (hypothesis 4) is significantly increasing collaboration. Fourth, killing the enemy seems to have little effect (although the three week lag is positive and significant) but detaining the enemy (hypothesis 3) appears to increase current levels of collaboration. Finally, American deaths seem to have no effect on the level of collaboration. Overall, while not all of the lags are statistically significant, the results are generally support of all four hypotheses.

The control variables in table 1 are not listed to save space but are all statistically significant. In particular, the results indicate that 2004 had significantly less collaboration than all the following years. In terms of the regional controls, RC East, RC West, and RC South all had significantly more collaboration than RC Capital. In addition, RC North had significant less collaboration than RC Capital. The increased levels of collaboration (particularly in RC North and RC South) may be more indicative of those regions being the focus of the counter-insurgency campaign and not necessarily a more collaborative population. Finally, the alpha in each model is positive, which denotes over-dispersion.

While model 1 provides some interesting results and support for all four hypotheses, models 2 through 4 examine the robustness of the findings by using different sets of lags. These models progressively remove one of the lags from the preceding model to get a better sense of how the results maintain or change given different specifications. In general, the results appear pretty robust to alternative sets of lags. For instance, the effect of the Obama surge variable is consistently positive and significant. In addition, American deaths have no effect on the level of collaboration regardless of the number of lags used in the analysis.

The effect of civilian deaths also maintains across the models. The one week and two week lags are negative and significant across the models and the three week lag insignificant. Insurgent deaths seem to

only matter lagged three weeks but other than that there seems to be little effect. In terms of detaining insurgents, the two and three week lags are positive and significant across all models but the one week lag is only significant in model 4. Finally, the one and three week lagged collaboration coefficients are positive and significant across all models but the two week lag is only significant in model 3.

Overall, the results in table 1 provide support to our arguments and clear demonstrate the importance of the battlefield environment. To further examine the robustness of the results, we replicated models 1 through 4 but also included a variable that examines a longer term process. In particular, for each variable we calculated the number of events that occurred in the month before the weekly lags. For instance, the equivalent of model 1 would include all four weekly lags plus a variable that counted the number of civilian deaths in the month preceding the four week lag (as well as separate variables American deaths, insurgent deaths, and insurgents detained). The inclusion of these longer-term effects did not significantly alter the results reported in table 1. In addition, the long-term effects that mattered most were civilian deaths (significantly decreased collaboration) and enemies detained (significantly increased collaboration).

While there may not be the perfect model to examine the effect of the battlefield environment on collaboration, we believe that the stability of the main results to alternative models provides added support. In fact, while there are some minor changes in the main independent variables, the more general conclusions maintained across a wide range of specification. Previous collaboration creates a positive feedback and increases current levels of collaboration. Killing civilians decreases collaboration, whereas detaining insurgents increases it. Finally, the Obama surge seems to be having success in increasing collaboration.

Conclusions

Strategic assessment is critical for counter-insurgency warfare. In fact, Greenhill and Staniland (2007:408) argued that "like the most innovative and successful businesses, the most effective COIN forces

will re-evaluate early and often, that is, while their tactics are still working, and preemptively anticipate how their own behavior will change that of their adversaries." Despite the importance, counter-insurgency warfare is varied enough that determining the best assessment criteria becomes difficult. We argue that the level of collaboration is critical for ultimate success in a counter-insurgency campaign and is a good measure to use for strategic assessment.

There are a number of ways to look at the correlates of the level of collaboration. As a first cut we concentrate on the battlefield environment, which essentially captures the impact that the conflict has in the region. Since the civilian population lives within this context it should affect their perceptions of both the insurgents and counter-insurgents and influence their collaboration decisions. We argue that battlefield environments that minimize the footprint of the conflict (low civilian deaths, high levels of insurgent detainments) increase the level of collaboration. The empirical analyses support both our argument that the battlefield environment matters and that it matters in the way we hypothesized. In particular, high levels of collaboration are correlated with high levels of lagged collaboration, low levels of lagged civilian deaths, and high levels of lagged insurgent detainment. In addition, the surge in troops initiated by President Obama seems to be increasing collaboration. Overall, these results confirm some counter-insurgency conventional wisdom, i.e. you need to maintain a physical presence in the region but do so in a way that limits the footprint. Once the counter-insurgents are able to create this battlefield condition, it can kick start a positive feedback in the rate of collaboration.

Of course, the next and most natural question is how to generate the battlefield environment that minimizes civilian deaths and maximizes the detainment of insurgents? Clearly this is a question that cannot be addressed in the context of this paper but is the next logical step in this research program. It seemed important to first establish what battlefield environment increases collaboration before looking at how to create that environment. In general, one would expect that this environment could be created through both military and non-military means but exactly how is debatable. For instance, is air power or are ground

forces more important? How important is it to establish a social safety net as opposed to physical security? These are clearly vital questions and can be addressed both in the context of the war in Afghanistan and with future analysis of the reports provided by the Afghan War Diary. In addition, these questions become easier to address knowing the sort of battlefield environment that needs to be created.

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Table 1: The Effects of the Battlefield Environment on Strategic Success

	Model 1	Model 2	Model 3	Model 4
Civilian Deaths (lagged 1 week)	**-0.010**	**-0.008**	**-0.007**	**-0.007**
	(-2.46)**	**(-2.08)****	**(-1.84)***	**(-1.82)***
Civilian Deaths (lagged 2 weeks)	**-0.011**	**-0.010**	**-0.009**	-
	(-7.31)***	**(-11.31)*****	**(-9.00)*****	-
Civilian Deaths (lagged 3 weeks)	-0.002	-0.001	-	-
	(-1.05)	(-0.51)	-	-
Civilian Deaths (lagged 4 weeks)	0.009	-	-	-
	(1.47)	-	-	-
Insurgent Deaths (lagged 1 week)	0.001	0.001	0.002	0.001
	(0.24)	(0.32)	(0.84)	(1.57)
Insurgent Deaths (lagged 2 weeks)	0.000	0.000	0.000	-
	(0.05)	(0.13)	(0.18)	-
Insurgent Deaths (lagged 3 weeks)	**0.002**	**0.003**	-	-
	(6.57)***	**(4.08)*****	-	-
Insurgent Deaths (lagged 4 weeks)	0.001	-	-	-
	(0.93)	-	-	-
Insurgents Detained (lagged 1 week)	0.000	0.001	**0.002**	**0.004**
	(0.13)	(1.01)	**(6.17)*****	**(4.50)*****
Insurgents Detained (lagged 2 weeks)	**0.009**	**0.008**	**0.010**	-
	(2.06)**	**(3.09)*****	**(4.56)*****	-
Insurgents Detained (lagged 3 weeks)	**0.006**	**0.006**	-	-
	(2.78)***	**(5.67)*****	-	-
Insurgents Detained (lagged 4 weeks)	-0.002	-	-	-

	(-0.30)	-	-	-
American Deaths (lagged 1 week)	0.028	0.025	0.024	0.028
	(0.93)	(0.96)	(1.05)	(1.02)
American Deaths (lagged 2 weeks)	0.004	0.002	0.003	-
	(0.14)	(0.07)	(0.14)	-
American Deaths (lagged 3 weeks)	-0.028	-0.025	-	-
	(-0.75)	(-0.67)	-	-
American Deaths (lagged 4 weeks)	-0.006	-	-	-
	(-0.55)	-	-	-
Total Collaborations (lagged 1 week)	**0.160**	**0.170**	**0.175**	**0.188**
	(4.93)* **	**(5.68)*** **	**(5.54)*** **	**(4.68)*** **
Total Collaborations (lagged 2 weeks)	0.022	0.017	**0.039**	-
	(1.46)	(0.80)	**(2.76)*** **	-
Total Collaborations (lagged 3 weeks)	**0.084**	**0.097**	-	-
	(1.79)*	**(2.32)*** **	-	-
Total Collaborations (lagged 4 weeks)	**0.076**	-	-	-
	(4.15)* **	-	-	-
Obama Surge Count Variable	**0.036**	**0.037**	**0.038**	**0.040**
	(2.14) **	**(2.35)** **	**(2.49)** **	**(2.34)** **
Constant	**-4.530**	**-4.520**	**4.594**	**-4.659**
	(-26.94)* **	**(-29.33)*** **	**(32.79)*** **	**(-31.91)*** **
Number of Observations	1570	1575	1580	1585
Log pseudo-likelihood	-661.94	-665.43	-668.32	-670.59
Alpha	0.54	0.52	0.53	0.56

Cells contain coefficents with the t-score in parentheses below

The control variables for the year and region are included in the models but excluded from the table.

* p<0.10; ** p<0.05; ***p<0.01 (all tests are two-tailed)

[i] To be clear, the battlefield environment is the place where the combatants interact. In the case of an insurgency, this is often where the civilian population lives and works. So in this case, the battlefield environment can be thought of as the intersection of the war and civilians. Different battlefield environments place different levels of strains on the civilians and offer differing levels of threats.

[ii] Kalyvas and Kocher (2009) replicated these findings in Vietnam using the Hamlet Evaluation System.

[iii] In fact, Justino (2009) argues that two key factors affect the odds that a household will collaborate with an armed group: level of household wealth and the risk of violence. In this project, we are concentrating on the effect of the violence on this process.

[iv] It is important to note that we are not testing a given strategy or tactic. This study is meant to determine what environment is conducive to collaboration. The next step would be to figure out what strategies or tactics generate that type of environment. This is important because the population does not care about strategy or tactics but how those translate into the environment in which they try to navigate and survive.

[v] The incident description can be found at Report Key A517B29A-ABE5-48FB-8FFB-75D0FECC5B2E.