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**COUNTERINSURGENCY IN IRAQ
THEORY AND PRACTICE**

By

William Crisler

B.S.B. Indiana University, 2017

A THESIS

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

(in Economics)

The Graduate School

The University of Maine

May 2021

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THEORY AND PRACTICE

By William Crisler

Thesis Advisor: Dr. Todd Gabe

An Abstract of the Thesis Presented
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Small Wars, Asymmetric Wars, Insurgencies, Guerrilla Wars. They have been occupying a larger and larger share of violent conflicts over the last two centuries, and have posed more significant challenges to status quo states as time has gone on. The approach of brutal repression, once considered the only method to wage war, has been questioned more frequently as the only method to approaching the challenge these insurgencies face. With an enemy hiding amongst a non-combatant public, much of the criticism has been about the morality of indiscriminate violence when innocents will necessarily be caught in the crossfire. Increasingly, more of the criticism is around the efficacy of simple repression. In Iraq, these criticisms became more stark as the conflict dragged on, with violence increasing every year under an approach that did not take the “hearts and minds” strategy seriously. Once this approach took center-stage, violence declined precipitously. This thesis attempts to measure, using a review of recent literature and a fixed effects regression model, how the efforts in this changed approach may have contributed to the reduction in violence seen in the Iraqi insurgency. Overall, the evidence appears to show moderate support for the change in strategy to a more precisely hearts and minds style of counterinsurgency.

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They robbed every house on the road of its provisions, sometimes taking every piece of meat, blankets and wearing apparel, silver and arms of every description [...] Is this the way to make us love them and their Union? Let the poor people answer whom they have deprived of every mouthful of meat and of their livestock to make any! Our mills, too, they have burned, destroying an immense amount of property.

Dolly Sumner Lunt

29 July 1864

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CHAPTER 1

INTRODUCTION

Executive Summary

The main objective of this study is to analyze the effectiveness of the hearts and minds strategy on guerrilla warfare in the context of the Iraq War. To measure this, I conduct an analysis using a dataset of Coalition forces reconstruction spending maintained by the US Army Corps of Engineers, troop levels as measured by maneuver battalions in a given province per month, and the number of civilian deaths from insurgent violence as recorded by the Iraq Body Count website. The results are not particularly robust to various specifications, but generally support the strategy taken up by the Coalition at the beginning of 2007, when a greater emphasis was placed on the support of the larger public in efforts to end the insurgency.

Security presence and funding education programs seem to have been the most significant factors for reducing violence in Iraq, although there is considerable heterogeneity in their effects over time that speak to the results of the change in strategy. This study has limited external validity, but provides insight into the strategy as employed in Iraq and bolsters support for the approach overall in general counterinsurgency warfare theory.

Exposition

Counterinsurgency has seemed to have become the norm for US military conflict.¹ For most of its history, the United States has not faced this challenge. It has had its most notable successes in direct, conventional, “total war” style conflicts, as in the US Civil War and World War II. Engaging an enemy directly, who wears a clearly distinguishable uniform and voluntarily separates itself from non-

¹ Zambri, “Peasant Roles in Insurgency and Counterinsurgency: A Brief Historical Analysis”; Cassidy, “Military Innovation in the New Normal”; Donley, “Economic Development in Counterinsurgency,” 102.

combatants, and throwing a mass of force in its direction. Since the advent of the nuclear age, that kind of conflict has taken up a smaller share of the violent conflicts we face.

Our adversaries generally do not seek to engage with us directly, lest they be destroyed in short order. Now, the enemy operates behind the front line of the state power, attempting to thrive in this area as a “fish in the sea.”² This enemy is much more difficult to identify. This style of conflict poses an entirely different kind of challenge to the western military than the conventional. Various approaches have been proposed for this sort of fight, ranging from more or less concerned with the welfare of non-combatants, with varying expectations of success. This study will evaluate the efficacy of current Western counterinsurgency doctrine, as applied in Iraq.

Context

The phrase “small war” seems to have first entered American parlance in its modern sense in the 1930’s, eventually necessitating the doctrinal publication “NAVMC 2890,” the US Marine Corps’ Small Wars Manual. Here, a small war was defined: “military force is combined with diplomatic pressure in the internal or external affairs of another state whose government is unstable, inadequate, or unsatisfactory for the preservation of life and of such interests as are determined by the foreign policy of our Nation.” This was certainly not because the US had just begun to see the sort of warfare it referred to as a small war, in fact the same publication states that for the last century, the Marine Corps’ typical employment involved a small war, being actively engaged in one 85% of the time. This begs the question: how were these wars fought? After this century of practice fighting guerrillas, what had the Marine Corps learned?

NAVMC 2890 describes a strategy not too unfamiliar to today’s operations: US forces are spread throughout an area, they establish bases in cities, send patrols throughout the region, and establish a government, while emphasizing the necessity of transitioning to a government run by a local populace.

² Mao Tse-tung, *On Guerrilla Warfare*, 92–93.

...intercept the vital supply and support channels of the opposing factions and to break the resistance to law and order by a combination of effort of physical and moral [psychological] means. During this period the marines carry the burden of most of the patrolling. Native troops, supported by marines, are increasingly employed as early as practicable in order that these native agencies may assume their proper responsibility for restoring law and order in their own country.

The manual also hints at an approach not generally understood to be a part of contemporary Western counterinsurgency:

Interventions or occupations are usually peaceful and altruistic. Accordingly, the methods of procedure must rigidly conform to this purpose; but when forced to resort to arms to carry out the object of the intervention, the operation must be pursued energetically and expeditiously in order to overcome the resistance as quickly as possible.

The doctrine of the Marine Corps pre-World War II involved a sort of violence of action not typified by modern counterinsurgency thought. If initial efforts at standing up a government in the area were ineffective, swift, violent force was used to pacify the insurgency.³

US military doctrine certainly did not always conform to this approach. Although not counterinsurgency per se, during the US Civil War General William Tecumseh Sherman made a name for himself among Confederates for his methods. After seizing Atlanta he broke off connections with his supply chain from the North and endeavored to supply his forces off of what they could gather while on the march, in an operation now known as "Sherman's March to the Sea." This involved looting every town they crossed through and destroying the Confederates' means of production. The goal was to remove the ability of the Confederates to carry on a war. Sherman would simultaneously destroy the sources of supply for the rest of the southern army, and dissuade the locals from supporting the rebellion. As he put it, "...the more awful you can make war, the sooner it will be over. [...] war is hell, at the best."⁴ If the locals were totally demoralized and convinced of the inability of their efforts to achieve their aims, they would simply give up. Dolly Sumner Lunt, quoted in the epigraph to this manuscript, was

³ NAVMC 2890, *The Small Wars Manual, U.S. Marine Corps*, 6–13.

⁴ Davis, *Sherman's March*, 200.

a woman in the path of Sherman's march. She at least was certainly not persuaded of the "Yankee cause," but she is not representative of the whole South or its troops, desertion became increasingly and devastatingly common in the Confederate ranks as the war dragged on.⁵ Glatthaar's research notes the common experience of a Confederate Soldier hearing about the waste being laid to their homes and families, and deciding to leave. "When the men learned of the suffering of their women at home, [...] many of them not unnaturally deserted, and went to their aid."⁶ In fact, the civilian government of Savannah, Georgia seems to have largely cooperated with the martial law he imposed upon them. The mayor of the city had a message for the would-be resistance: "Where resistance is hopeless, it is criminal to make it." Having destroyed the Southerners' hopes for victory, they simply acquiesced to their defeat.⁷

This is the more traditional approach to warfare- that of total war. From the Mongols' siege of all cities in their way, to the Union's actions in Georgia, to Caesar in Gaul, to World War I; belligerents would kill Soldiers and Civilians and use any means they had available to do so. The strategy was one of outright destruction. As photographs of the effects of war became more widespread, first in the Crimean War, then the US Civil War, and particularly the Vietnam War (which is one of the first where most of the photos are known to not be staged),⁸ the publics' and their governments' tolerance of different methods and tactics employed in the hell that is war thinned further and further.⁹ What historically has been hailed as one of the turning points of the US Civil War in General Grant's Siege of Vicksburg, would now be looked at as a war crime as in the Syrian siege of Aleppo today.¹⁰

⁵ Weitz, *More Damning Than Slaughter*.

⁶ Glatthaar, *The March to the Sea and Beyond*, 154.

⁷ Davis, *Sherman's March*, 129.

⁸ Sontag, *Regarding the Pain of Others*, 51–56.

⁹ Gartner, "On Behalf of a Grateful Nation," 555–58; Sherer, "Vietnam War Photos and Public Opinion," 391–95, 530; Althaus and Coe, "Priming Patriots," 65–88.

¹⁰ "U.N. Inquiry into the Siege of Aleppo," 19–20.

It is in this context that the approach to a counterinsurgency known as a “hearts and minds” campaign has arisen. In the face of an enemy that refuses to separate itself from the sea of innocent non-combatants, this campaign strategy is much more tame than the first instinct of a past era. Here, the state power seeks to persuade the populace that the guerrillas are the enemy, and that the state is the benevolent figure. The war is then framed as dissuading the public from supporting or joining the guerrillas in their insurgency. The Western hearts and minds campaign works to secure the rights of the populace, their safety and security, and basic services for them, and show them that the guerrillas either cannot or will not do the same.

In the framing of a guerrilla war (also called an insurgency), this is not the only approach that can be taken. A state actor could, for example, put more effort toward convincing the populace that the guerrilla’s efforts are futile and without effect. That no matter what strategy they adopt, the resolve of the state and its willingness and ability to attack its enemies are indefatigable.

This presents a state strategist with a few choices in strategy. The state may employ 1) A perhaps “tried-and-true” approach to insurgency of brutality in the restive region, one of group punishment that compels the locals to eject the guerrillas for fear of being attacked alongside them; 2) Deporting large masses of the populace to disrupt any networks that may aid the guerrillas in their efforts to subvert the state’s authority, or “Clearing the Sea” in Mao’s terminology; or 3) The hearts and minds campaign, wherein the state power acts as a benevolent authority, seeking legitimacy in the eyes of the “persuadable middle” of society.

Iraq

Iraq initially posed a very different challenge to the United States. The rationale for invading as given by the White House at the time was that the Hussein regime was manufacturing and hiding weapons of mass destruction (WMD’s),¹¹ and that these weapons would likely be given to enemies of

¹¹ Powell, “Full Text of Colin Powell’s Speech.”

the United States.¹² History has shown these claims to be inaccurate, and has invited plenty of criticism of the administration, even accusing it of invading Iraq “for the oil,”¹³ (a claim initially promoted by the Iraqi UN ambassador).¹⁴

The initiative for an invasion is still contentious, but I will briefly highlight a viewpoint advanced from author Robert Draper’s analysis in his book, “To Start a War.” His principal conclusions are that 1) The intelligence assessment in the US at the time was that Iraq was most likely not developing and harboring WMD’s, 2) That policymakers at the White House used motivated reasoning to evaluate these assessments, and twisted their summaries in presenting them to the American public and to the world. This perspective is based on interviews he conducted with over 300 individuals in and around the state Department, the Intelligence Community, the President and Vice President’s staff, and others in the Executive Branch.¹⁵ This initial push by the administration against Iraq was followed by some, albeit muted, skepticism.¹⁶ The Authorization for the Use of Military Force passed with bipartisan support, and only 29% of members of Congress voted against.¹⁷

However the war began, the conventional phase finished relatively quickly. Having invaded over 19-20 March, 2003, the capital was under coalition control by 10 April,¹⁸ and on 1 May, the President declared “Mission Accomplished.”¹⁹

Shortly after this, the nation-building began. The provisional government set up by the United States, the Coalition Provisional Authority, was headed by Paul Bremer with total authority over Iraqi

¹² CNN, “Bush: Iraq, al Qaeda Linked.”

¹³ Ahmed, “Iraq Invasion Was about Oil.”

¹⁴ CNN Staff, “Iraq: U.S. Has No Evidence.”

¹⁵ Morell, “Author Robert Draper on What Led the U.S. to War in Iraq.”

¹⁶ Press Release, “A Failure of Skepticism in Powell Coverage”; The Editors, “The Times and Iraq” Consider this editorial from the left-leaning New York Times, who might be expected to voice a mainstream opposing viewpoint to the Republican Bush administration. They articulate well their own failure to provide criticism to claims of WMD’s in Iraq.

¹⁷ “U.S. Senate: Vote Summary On the Joint Resolution (H.J.Res. 114)”; “U.S. House Roll Call 455 | Bill Number: H. J. Res. 114.”

¹⁸ Staff, “The Toppling of Saddam - an End to 30 Years of Brutal Rule.”

¹⁹ Kline, “The Other Symbol of George W. Bush’s Legacy.”

civil society. Although having the air of an institution with broad capability, funding, and personnel, it was anything but. The funding from the US was meager, and was given only the Iraqi reserves with which to govern on the premise that the disruption to society would be brief, and that normal taxation would balance out with the cost of government service provision.²⁰ Paired with this, most of the Coalition personnel in Iraq were in the military and under the command of General Tommy Franks, the US CENTCOM regional commander, in control of all US forces in operation in the Middle East.²¹

General Franks had recently overseen the invasion of Afghanistan, and was now being tasked with another invasion, which would divert significant resources away from his earlier mission in Afghanistan. Both of these operations were ongoing with his retirement quickly approaching in the Summer of 2003, while he was attending White House Galas instead of the two wars he was in command of.²²

Until March of the following year, violence seemed to be relatively stable. March and April of 2003 saw the most death that any in Iraq would experience until the peak of ISIS operations in 2014. Initial looting in the transitional confusion was expected, and quickly dealt with when it arose.

The dual command structure—the CPA in charge of the Iraqi state apparatus, and CENTCOM in charge of coalition forces—began showing strain as Paul Bremer began to dismantle the state apparatus, rather than build one up. With what was termed “de-Baathification,” he expelled all members of Saddam Hussein’s political party from the levers of government power. He followed this with the dissolution of the Iraqi military and intelligence services, leaving the military—estimated at

²⁰ Dobbins, *Occupying Iraq*, xiii–xiv.

²¹ “Operation Iraqi Freedom - CENTCOM Operation Iraqi Freedom Briefing.”

²² Draper, *To Start a War*, 356–61.

around 375,000 members strong—unemployed.²³ This was over the objection of the military command, and seemingly without significant deliberation.²⁴

Constraints on the CPA's ability to provide services brought protests in the coming months, as some insurgent groups began paying Iraqis for dead US Soldiers and damaged equipment. The Coalition began bootstrapping a new Iraqi military, geared toward defense from external aggressors, rather than the internal aggressors it would soon face. This buildup was led by a multitude of different parties involved, with no actual end state in mind. With withdrawal in the mind of leadership in Washington, and a haphazardly constructed security apparatus, insurgent organizations began to form in the country by the Fall of 2003. At its peak, there were 90 separate insurgent groups fighting the US Coalition and the nascent Iraqi government.²⁵ These organizations drew financing and limited recruitment outside the country. While Al Qaeda was not in any significant amount present in Iraq before the invasion,²⁶ it certainly was now.

This insurgency began small in 2003. There were different levels of state control across the country; in Ninewa province, under the control of the 101st Airborne Division of then-Major General (MG) David Petraeus, violence stayed relatively muted. The division, made up of infantry Soldiers, predominantly walked patrols through communities and acted as a police force. They established customs check points to fund local public works projects. They set up a locally-run police force that they began training. They set up an employment office for former Iraqi military officers. The counterinsurgency approach that would become the mission of the broader Coalition in 2007, was already in practice in Ninewa province as evidenced by the sign hanging in MG Petraeus' command post:

²³ Cordesman, "If We Fight Iraq: Iraq and The Conventional Military Balance," 3.

²⁴ Breslow, "Colin Powell Interview on PBS Frontline." According to Colin Powell at least, this decision was done without discussion or notifying any authority from Washington, who had the impression that a different plan was to be employed.

²⁵ Serena, *It Takes More Than a Network*, 1.

²⁶ Staff, "CNN.Com - Bush Insists Iraq, al Qaeda Had 'relationship' - Jun 17, 2004."

“We are in a race to win over the people. What have you and your element done today to contribute to victory?”²⁷ In February 2004, they were replaced with a force about 1/4th their size, and violence spiked immediately.

Yet, in 2004 violence broke out across the country, not just Ninewa. In this province at least, some have even laid blame at MG Petraeus for his poor screening of local security forces.²⁸ Indeed, in the first major assault on the city by insurgents, many of the local police force his unit stood up either fled or joined the insurgents in the fighting.²⁹ This illustrates a central challenge inherent in the hearts and minds strategy to counterinsurgency.

The change in strategy spearheaded by now-General Petraeus as he took command of Multi-National Force — Iraq (MNF-I, or “Coalition forces”) in February 2007 was multifaceted. This involved community outreach, small military outposts, and political development of several forms, which initially was accompanied with a rise in violence. But as one author put it, “This was in part to be expected: the U.S. had responded to worsening violence in 2005 by bunkering up in sprawling military compounds, letting Iraqi militant groups tear each other and their country apart, so moving back into the field exposed Americans to greater harm.”³⁰

This new approach began with a negotiated peace with one of the largest militant groups in the country, the Mahdi Army, which had previously been designated a hostile actor in 2003,³¹ and a start to paying some former enemy combatants to act as contracted security personnel. Whatever the cause, violence peaked around this time, and by the end of 2007, was at less than half of its prior height. This approach to counterinsurgency continued, and deaths to civilians from local insurgents were below the levels seen even in 2003, as shown in Figure 1.

²⁷ Gordon, “THE STRUGGLE FOR IRAQ: RECONSTRUCTION; 101st Airborne Scores Success In Northern Iraq.”

²⁸ Porter, “How the Myth Began - Petraeus in Mosul.”

²⁹ “US General Sounds Election Warning.”

³⁰ Fisher, “The Iraq Success Story That Propelled David Petraeus to the Top.”

³¹ Multicoalition Force Iraq, “ANNEX E (CONSOLIDATED ROE) TO 3-187 FRAGO 02, OPOD 02-005.”

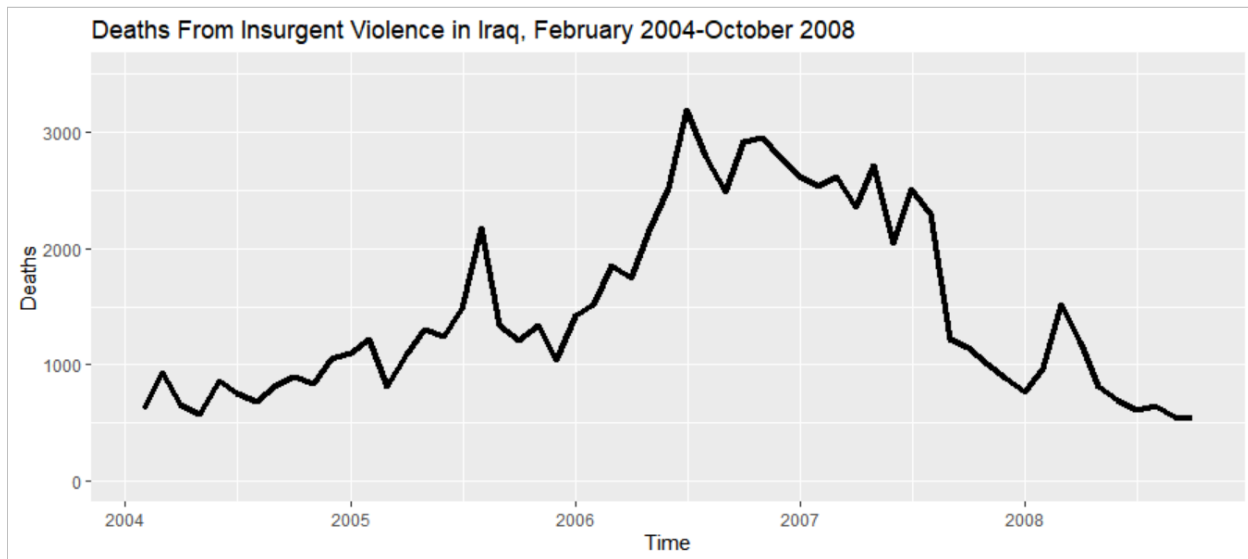


Figure 1, Deaths From Insurgent Violence in Iraq over Time

Some attribute the decline in violence to “internal Iraqi forces” resolving much of the fighting on their own, rather than the new strategy.³² However, this idea is not mutually exclusive from the idea that the MNF-I strategy yielded a turnaround. The strategy involves pulling the local populace into the governing process, gaining buy-in from the governed. In fact, that is precisely the goal from an American counterinsurgency perspective. If they are self-governing, the strategy is working.

³² Fisher, “The Iraq Success Story That Propelled David Petraeus to the Top.”

CHAPTER 2

THEORY

Guerrilla Theory

Guerrilla warfare rests on a different premise than orthodox, or conventional warfare. In conventional war, there is a direct confrontation between two parties who battle openly, and the winner of the battle dictates terms to the losing party, usually ceding land or authority. In guerrilla warfare, the fight is not *between* Soldiers, so much as *for* civilians. By recruiting the populace into your struggle, by whatever means, a guerrilla enables their base of support to grow approximately exponentially. At maximum effectiveness, they have at least the same force as any legitimate state that might govern them, drawing taxes, recruits, and other resources from the masses.³³

Most historians point to Mao as the progenitor of guerrilla warfare doctrine, although campaigns similar in character have occurred prior to his organized resistance against the Japanese.³⁴ In Mao's case, he prevailed on his followers to be kind to the people they were attempting to recruit, to cultivate a good reputation. He built a decentralized organizational structure, and explicitly required every local outfit to have its own political section for the purpose of persuading those in their area of the merits of their cause. He taught that recruitment is important among the general public, as well as among the forces of the enemy state. Only taking in volunteers for service,³⁵ rather than pressing them (An admonishment habitually ignored by his ideological adherents, as in Singapore,³⁶ Malaysia,³⁷ and

³³ Mao Tse-tung, *On Guerrilla Warfare*; Guevara et al., *Guerrilla Warfare*; *Guerrilla Warfare and Special Forces Operations (FM 31-21)*. Readers are referred to either Mao or Guevara for their exposition of the strategy of Guerrilla Warfare. The method has certainly been employed in prior conflicts, but these two are arguably the most well-known, and the two who have inspired the most to follow their methods. I use Mao mostly, as his influence seems to have carried further. FM 31-21 Offers a good exposition of the early Special Forces understanding for the strategy, and their implementation, notably as in the "Citizens' Irregular Defense Groups" in Vietnam.

³⁴ Gann, *Guerrillas in History*, 1–24.

³⁵ Mao Tse-tung, *On Guerrilla Warfare*, 72, 86.

³⁶ Clutterbuck, *Conflict and Violence in Singapore and Malaysia, 1945-1983*, 60.

³⁷ Clutterbuck, 227.

Vietnam³⁸). Sections of a local unit are explicitly directed to engage in countering enemy information operations, that is, to stifle the efforts of the state's propaganda.

The guerrilla is advised to not "weaken the guerrilla spirit of resistance," through a dependence on logistical support from a central authority or outside funding. The guerrilla sources arms and supplies from the enemy, and recruits from the populace. The guerrilla attacks only small groups of state forces, while harassing and disrupting the communications of larger elements.³⁹ The primary operational focus of the guerrilla fighter is to subsist off the local populace and to bleed resources from the state. Avoid large engagements you will likely lose, and cause as many small points of pain for the state power as possible. The guerrilla's progress is measured by how much of the populace they have swayed to their side.

The question of how to pull the masses into the fight on the side of the guerrilla varies drastically. In Mao's case, being the "good guy" fighting the state oppressor is the central stratagem. In the Yugoslavian resistance to Axis control, the tactics were much harsher. As recounted by John Keegan in his anthology "A History of Warfare:"

Tito hardened his heart against reprisals; indeed, he saw Axis atrocities as a spur to recruitment. [...] 'Some commanders are afraid of reprisals and that fear prevents the mobilisation [sic] of Croat villages. I consider the reprisals will have the useful result of throwing Croatian villages on the side of Serb villages. In war we must not be frightened of the destruction of whole villages. Terror will bring about armed action.'⁴⁰

The guerrillas are weak individually, but draws strength through a continual recruitment of the support of the broader public.

Iraqi Insurgent Strategy

How closely do the insurgents in Iraq resemble this type of fighter? Only partially. There are five significant criteria I use to assess this.

³⁸ Horeman, Stolwijk, and War Resisters' International, *Refusing to Bear Arms*.

³⁹ Mao Tse-tung, *On Guerrilla Warfare*, 85.

⁴⁰ Keegan, *A History of Warfare*, 72.

Criteria 1 - Weapons sourcing

Iraqi insurgents have sourced their weapons from three main sources. The most well-known weapon they employ is the improvised explosive device (IED), which is a very broad term. The IED is a homemade weapon made from an assortment of materiel such as jerry-rigged ordinance, or even fertilizer. The IED is not something that is “manufactured,” so much as cobbled together from available parts with suggested designs easily available online depending on the resources the insurgent has access to.⁴¹ The second main source is from the state. Insurgents obtained a significant source of weapons from poorly controlled caches of the old Saddam regime, which was enabled in the rushed CPA transition post-invasion. While the coalition was looking for WMD’s, little attention was paid to small arms stockpiles, with a potential insurgency not on anyone’s mind. They also obtained a significant source of weapons from the nascent Iraqi state, which has totally neglected the accounting for of arms deliveries from the United States. Weapons sitting in warehouses or in large containers out in the open without anyone knowing how many are actually present make an easy target.⁴²

Criteria 2 - Manner of Attack

With these weapons, Iraqi insurgent groups generally hue towards a guerrilla type of engagement. They use ambushes on small elements,⁴³ they lay disguised IED’s to take out individuals clearing roads of corpses,⁴⁴ and they engage small elements separated from reinforcements in brief hit-and-run style attacks.⁴⁵ Once they attack an element, they will then often use the weapons from the troops they’ve attacked as their own. These attacks are textbook guerrilla tactics. Insurgents use only opportunistic violence to go after the state power, and never mass forces significant enough for a large

⁴¹ Martin, “The IED: The \$30-Bombs That Cost The U.S. Billions,” 30.

⁴² Kessler, “Weapons Given to Iraq Are Missing”; “The U.S. Army Lost Track of More than \$1 Billion Worth of Weapons and Equipment, Report Says.”

⁴³ Filkins and Schmitt, “14 U.S. Marines Killed in Iraq When Vehicle Hits a Huge Bomb - The New York Times.”

⁴⁴ Raddatz, “Iraq Insurgents Using Children, Corpses for Bombs.”

⁴⁵ Zielbauer, “Army Punished 2 Officers in '06 After Failures in Iraq Ambush,” 2; Hashim, *Insurgency and Counter-Insurgency in Iraq*.

engagement, which they likely would not know how to coordinate effectively anyway. This preserves their numbers as much as possible, drags out the war, and continually, slowly degrades the forces of their enemy.

Criteria 3 – Persuade the Local Populace

How significant were the insurgent groups efforts to pull the public to their side? Polling between 2004 and 2005, shows that at least among the Sunni population, there was a significant base of support of around half the population for insurgent attacks, at least on coalition forces.⁴⁶ However, it is hard to attribute this support as being due to activities from the insurgents, rather than missteps by the coalition.

In one piece of reporting from The Economist in early 2005, we can see the general tone of Coalition forces operating among the populace. Convoys with signs reading "Keep 50m or deadly force will be applied," in English and Arabic. In conversation with a Marine in country, the reporter quotes him reflecting on the rules of engagement (ROE) being applied at the time, "It's kind of a shame, because it means we've killed a lot of innocent people." The type of strategy employed at the time is evident when you learn that in this battalion of 800 troops, there are only four translators available. The sort of treatment of the locals employed by coalition forces and by the insurgents were likely to deter support for either side.⁴⁷

Tellingly, the same polling also shows that while the populace supported the attacks on coalition forces, they simultaneously doubted the ability of the insurgents to effect change in roughly the same proportion.

⁴⁶ Eisenstadt, "The Sunni Arab Insurgency"; Shaver and Zhou, "How to Make Surveys in War Zones Better, and Why This Is Important."

⁴⁷ "When Deadly Force Bumps Into Hearts and Minds."

Criteria 4 - Organization

The Insurgent groups in Iraq were never a cohesive organization. There were conflicts over strategic approach,⁴⁸ religious divides,⁴⁹ and disagreements over the strategic direction of their movement.⁵⁰ This lack of centrality does make the insurgency in some sense resemble the guerrilla organization envisioned by Mao. There is no dependence on a central authority to direct each maneuver by the local outfit. Each local group is forced to find its own resources. Each group must run their own political operation, persuading those in their community to join the movement with the message most effective in that community. Yet, this total lack of organization poses a problem in restricting any kind of coalescing towards their main goals.⁵¹

Criteria 5 – Funding and Independence

How grassroots is this guerrilla movement? Does it derive support from Iraq natively or externally? Two of the largest insurgent organizations, the Mahdi Army and Al Qaeda in Iraq, both received some significant funding from outside the country.⁵² Depending on how significant this funding was, this would reduce the efficacy of coalition efforts curbing their support among the populace. Further, Peter Krause notes in his research the importance of a single organization fighting as the insurgent:

Hegemonic national movements with one significant group are more likely to be strategically successful. This movement structure provides incentives for the dominant group to cement its position in the movement hierarchy through strategic gains; reduces counterproductive violent mechanisms from within and foreign meddling from without; and improves the movement's coherence in strategy, clarity in signaling, and credibility in threats and assurances. [...] If, however, the hierarchy of a movement shifts over time but the number of significant groups in the movement system remains the same, the groups are simply exchanging roles in a recurring play that is likely to have the same strategic finale.⁵³

⁴⁸ DePetris, "Al-Qaeda in Iraq's Strategy for 2012 - FPIF."

⁴⁹ Hashim, "The Islamic State," 70.

⁵⁰ Hashim, *Insurgency and Counter-Insurgency in Iraq*, 71.

⁵¹ Gabbay, "Mapping the Factional Structure of the Sunni Insurgency in Iraq," 2.

⁵² "Mahdi Army | Mapping Militant Organizations"; Byman, "Al Qaeda's M&A Strategy."

⁵³ Krause, "The Structure of Success."

When an insurgent group has to contend with other competitors, it is more preoccupied with positioning for dominance of resources potentially available to other groups, namely, labor and financing. This competition is typically violent. Further, research by Abrahms points to the terrible track record that insurgent groups who target civilians have for success.⁵⁴ None of the terrorist groups in his analysis who targeted civilians exclusively had any measure of success, and as the competition between insurgent groups results in the deaths of innocent civilians, they push away civilians from supporting their groups by self-delegitimizing.

Despite this strategic necessity, in late 2005 it became public knowledge that sectarian differences were about to become much more significant. In a letter from the head of Al-Qaeda to its affiliate in Iraq, he was admonished for his efforts fighting against the Shi'a community. While spending time in conflict with other Iraqi groups, AQI was delegitimizing itself in the eyes of the Iraqi public, brutally assaulting non-combatants. According to most assessments, the dozens of various groups of insurgents were not coordinating or unifying under the same banner. They were prone to infighting and spent much of their efforts fighting and killing each other, rather than a common enemy.⁵⁵ The infighting split the Iraqi resistance, pushing locals away from their movement.

Further, a raid in Sinjar province in 2007 resulted in the seizure of a personnel system used by AQI. This detailed hundreds of foreign recruits to AQI over the preceding year.⁵⁶ We do not have significant data on internal recruitment to these organizations, but it does not seem that the Iraqi insurgents were wholly dependent on them—which along with the above information around funding, and internal divisions, shows a lack of dependence on and availability of internal support. These data do not add to the guerrilla-specific nature of the Iraqi insurgency.

⁵⁴ Abrahms, "Why Terrorism Does Not Work."

⁵⁵ Beehner, "Iraq's Post-Saddam Insurgency."

⁵⁶ Peter Bergen et al., "Bombers, Bank Accounts and Bleedout."

Answering the Guerrilla's Challenge

What options exist for the state actor in Guerrilla Warfare?

Option 1 - Barbarity

In this context, barbarity refers to indifferent violent action; either during a guerrilla war, or to preempt one. Insurgents face a "collective action" problem.⁵⁷ In order to grow their movement, they require the support, through goods, services, and/or labor, of the public. The public may benefit from the actions of the insurgents, but participation is costly, creating from their view, a free-rider problem. The guerrilla uses persuasion, inspiration, coercion, and other tactics to induce the public to support them. Using a barbarity strategy, the state acts to raise the cost of this support.

Here, the state first acts directly against the insurgent. The first order effect is to reduce the numbers of the enemy, minimizing their ability to conduct operations. Some of those attacked may occupy key points in the guerrilla's organization, disabling communications, supply lines, and removing charismatic leadership. In doing so, a barbaric strategy may either ignore the deaths of the public or even attack the communities in which the guerrillas are known to reside directly, through collective punishment for the actions of the guerrilla.

Barbarity's second goal is to demoralize the populace. If the guerrilla faces an apparently overwhelming inevitable opposition, the public is not motivated by their own losses to join the guerrilla against the state. Rather, the public will see the only option available to alleviate themselves of their losses as acting against the guerrillas themselves. The collective punishment here incentivizes the public to reduce support for the guerrillas, to use what information they have to obstruct their operations, lest they invite the wrath of the counterinsurgent actor.

⁵⁷ Popkin, *The Rational Peasant*, 50–51.

Option 2 - Forced Migration

Forced migration is at various times a tactic within the strategy of either hearts and minds or barbarity, or a strategy of its own. Population relocation as a strategy acts to simplify the guerrilla challenge. Instead of sorting the public into combatants and non-combatants, population relocation simply relocates the entire community, fracturing the guerrilla in the process. If the population known to quarter the insurgents is sufficiently small, a counterinsurgent may either exile them outside the state entirely, or concentrate them into settlements that are easier to police. Once separated, the remaining guerrillas have lost their base of support in the community and without the resources they require from the public.

This strategy, depending on the manner in which the population is moved and the conditions which the relocated populace subsequently face can be either an act of depravity or an act of mercy.

The depravity is well-known in contexts of genocide and ethnic cleansing, where no consideration is paid to the welfare of the people being relocated, insufficient provisions given as they move, and no care given once they have met their destination. In other contexts, population relocation can be a mechanism to ensure the safety of communities that are difficult to police and secure. Whereas it may be difficult to prevent insurgents from attacking communities who cooperate with the state, once given an opportunity to move to another location with a sufficient supply of government services they may not have received before, those communities can be kept safe outside the area of conflict. Further, if the population being moved is effectively screened, this can separate the insurgent from the broader public, enabling conventional military responses.

Option 3 - Hearts and Minds

A hearts and minds strategy takes an approach atypical in a historical context to a budding revolt. The hearts and minds counterinsurgent will attempt to hamper the collective action problem for the insurgent not by raising the cost of participation, but by reducing the benefit. Guerrilla's generally make claims about the illegitimacy of the state or the insufficiency of the government's service provision. The state may respond to this not purely by violent contest, but by addressing these grievances directly.

The counterinsurgent's task here is very different from the barbaric one; the counterinsurgent seeks to fix the government, rather than simply the insurgent. The strategy, depending on the situation, will focus on efforts such as improving services available to the public, improving the public's ability to petition government officials for a redress of grievances, and/or providing security to the public from the guerrillas themselves, who are likely also targeting cooperating non-combatants for violence.

The counterinsurgent here views indiscriminate response to the guerrilla not only as unrelated to success, but as actually counterproductive. In the context of persuading the public to limit its support for the guerrilla, and to increase support to the state, this indiscriminate violence bolsters the claims the guerrillas are making. By providing "free propaganda"⁵⁸ to the insurgent, they make it easier to recruit from the populace, and encourage them to support the guerrilla.

Depending on who the counterinsurgent is, this may include another step to the hearts and minds strategy: a hand-off. Frequently the counterinsurgent either is, or is supported by, a foreign state. The foreign state, either during the counterinsurgent operations or immediately after, will have to ensure that the host nation is able to continue these practices with little to no support.

⁵⁸ "State Dept Cable - Holbrooke/M.B.N. Meeting" par. 17.

A Choice Framework

To narrow our focus to the barbaric and hearts and minds strategies, we can model the strategies as playing to the utility calculus of the public.⁵⁹

The public in the midst of a guerrilla war's primary concern is security. The public may be, incidentally or deliberately, a victim of either or both warring parties' violence. When the state competes over security provision, it is employing the hearts and minds approach to counterinsurgency. From this, we could infer that the more violent the guerrilla, and the better able the state is to secure the public, the more effective this strategy should prove to be. If both parties can credibly offer security to the public, then the state resorts to secondary efforts. The state seeks to persuade the public that their best interests are served by the state's success. This means using goodwill where the state supplies either public goods or propaganda to induce support from the public.

The barbarity approach takes a different tact: the state employs indiscriminate violence against not just the guerrilla, but also the public surrounding them. This coerces the public to leave the guerrilla, as the guerrilla is unable to credibly offer security in this market any longer.

In economic terms, these strategies can be described as beliefs about the functional form of the probability of ending an insurgency:

$$P(\textit{ending insurgency}) = f(\cdot) \tag{1}$$

With $P(\textit{ending insurgency}) = 1$ for a guaranteed success at ending an insurgency, and $P(\textit{ending insurgency}) = 0$ for a guaranteed failure. Both the barbarian and the hearts and minds strategies contend that this is a function of the capacity of the insurgency, where $\textit{capacity}(\cdot)$ is in part a function of public support (positive values are support for the guerrilla, negative support for the state):

$$P(\textit{ending insurgency}) = f(\textit{capacity}(\textit{support}(\cdot, \cdot))) \tag{2}$$

⁵⁹ A population relocation approach could be included here, but this could quickly grow cumbersome with limited added value. Also, most strategies under this approach simply remove the choice available to the public.

Where support is in turn a function of the public's perception of security, and the state's ability to persuade the public that "their best interests lie with the counterinsurgent:"⁶⁰

$$P(\text{ending insurgency}) = f(\text{capacity}(\text{support}(\text{security}(\cdot), \text{interests}(\cdot)), \cdot)) \quad 3$$

A counterinsurgent may apply varying combinations of either violence or goodwill, to ply at both "security" and "interests." In this model, the barbarian approach is entirely dependent on violence, while the hearts and minds approach uses a reduced level of violence, but offset with efforts towards goodwill. Taking the partial derivative of this function with respect to both efforts, we see:

$$\frac{\partial P}{\partial \text{violence}} = \frac{\partial f(\cdot)}{\partial \text{violence}} = \frac{\partial f(\cdot)}{\partial \text{capacity}} * \frac{\partial \text{capacity}}{\partial \text{support}} * \left(\frac{\partial \text{support}}{\partial \text{security}} \frac{\partial \text{security}}{\partial \text{violence}} + \frac{\partial \text{support}}{\partial \text{interests}} \frac{\partial \text{interests}}{\partial \text{violence}} \right) \quad 4$$

$$\frac{\partial P}{\partial \text{goodwill}} = \frac{\partial f(\cdot)}{\partial \text{goodwill}} = \frac{\partial f(\cdot)}{\partial \text{capacity}} * \frac{\partial \text{capacity}}{\partial \text{support}} * \left(\frac{\partial \text{support}}{\partial \text{security}} \frac{\partial \text{security}}{\partial \text{goodwill}} + \frac{\partial \text{support}}{\partial \text{interests}} \frac{\partial \text{interests}}{\partial \text{goodwill}} \right) \quad 5$$

For the barbarian approach, $\frac{\partial \text{support}}{\partial \text{security}} * \frac{\partial \text{security}}{\partial \text{violence}} < 0$, implying that increasing violence will decrease support for the guerrilla and even increase support to the state because the guerrillas are unable to interrupt the violence supplied by the state. Further, $\frac{\partial \text{capacity}}{\partial \text{goodwill}} > 0$, because any effort that provides resources to a public with guerrillas intermixed will aid the insurgency.

For the hearts and minds approach, the sign on $\frac{\partial \text{support}}{\partial \text{violence}}$ can vary, although generally taking a value less than in the barbarian's understanding. Here, $\frac{\partial \text{support}}{\partial \text{interests}} \frac{\partial \text{interests}}{\partial \text{violence}} > 0$, outweighing the gains over some portion of the curve from potentially increased perceptions of security. Additionally, support to the guerrilla declines with goodwill, $\frac{\partial \text{support}}{\partial \text{goodwill}} < 0$, because any legitimate complaints raised by the guerrilla can be addressed by the state to align the interests of the public with the counterinsurgent, $\frac{\partial \text{interests}}{\partial \text{goodwill}} > 0$. This gives the counterinsurgent a belief that $\frac{\partial \text{capacity}}{\partial \text{goodwill}} < 0$, the capacity of the insurgent is decreasing with increased goodwill to the public.

⁶⁰ FM 3-24, A-5.

CHAPTER 3

LITERATURE REVIEW

Introduction

The topic of counterinsurgency has been a hotly contested area of research academically for decades. For obvious reasons, randomized control trials are generally unavailable to academics. To remedy this gap in understanding, there have been a wide range of approaches to bridge the gap in the literature and use real evidence to test assumptions and “common sense” approaches. These studies generally vary across two dimensions: 1) level of rigor, and 2) size of analysis. The first dimension, level of rigor, relates to how scientific the research is. A narrative description of a single event in history is too easy to interpret in hindsight to fit many different assessments. The more rigorous approaches are well-controlled, seek pseudo-randomization, quantify their assessments, and state the bounds of their conclusions explicitly. The second dimension, size of analysis, is generally about how many situations, countries, or conflicts are involved in the study. A well-controlled analysis in a single country or conflict has a higher hill to climb if the authors want to make the case for external validity, i.e. that the assessments made in their study can generalize and hold true for conflicts in other times, locations, and contexts.

Research on Indiscriminate Violence in Counterinsurgency

In his research on mass killing and genocide, Benjamin Valentino asserts that “the intentional slaughter of civilians in the effort to defeat guerrilla insurgencies was the most common impetus for mass killing in the twentieth century.”⁶¹

Lyall’s seminal study of the Russian oppression of the Chechnyan insurgency over the period 2000-2005 made the case for the efficacy of authoritarian strategies in counterinsurgency. Using a rich

⁶¹ Valentino, *Final Solutions*, 5.

dataset of villages in Chechnya, he conducted a matched-pairs analysis to show that the 3 months after a village was shelled by the Russian military experienced about a 1/4th reduction in insurgent violence compared to the three months before. As a robustness check, he ran the same analysis looking at villages in the immediate vicinity, hypothesizing that the shelling may simply have pushed violent actors to neighboring towns, and did not find evidence to support that hypothesis.⁶²

This conclusion is unique in both its rigor, and its conclusions. Little research in this area is possible given the dearth of granular data on violence in authoritarian contexts. Notably, this work has been contested by Souleimanov, whose review of the work suggests that the shellings may have incited further violence, albeit further away in either time (several months after the shelling) or space (in a different region of the conflict).⁶³

Much of the literature also takes into account the terrain of the conflict in question. Broadly, if it's easier for a guerrilla group to hide, to disperse, and thereby more difficult for the state to police and selectively target combatants, the guerrillas are more likely to persist.⁶⁴ This also interacts with the appropriate strategy for a counterinsurgency to employ. For example, Downes notes in his analysis of the Boer War (1899-1902), that "the smaller the size of the underlying population supporting the insurgents, and the smaller and more constricted the geographic area, the more effective indiscriminate civilian victimization is likely to be." He goes on to observe that if the population supporting the guerrillas are intransigent, discriminatory violence is unlikely to deter the public from supporting the insurgents, and indiscriminate force becomes a more effective strategy over a hearts and minds approach.⁶⁵

⁶² Lyall, "Does Indiscriminate Violence Incite Insurgent Attacks?," 331–62.

⁶³ Souleimanov and Siroky, "Random or Retributive?," 677–712.

⁶⁴ Fearon and Laitin, "Ethnicity, Insurgency, and Civil War," 85; Nemeth, Mauslein, and Stapley, "The Primacy of the Local," 304–17.

⁶⁵ Downes, "Draining the Sea by Filling the Graves," 422.

Arreguín-Toft conducted an analysis of asymmetric conflicts over the period 1800-1998, coding each by strategy employed, as either direct or indirect. A direct attack is a simple attack against the combatants of the adversary, while an indirect attack would be either guerrilla warfare by the weaker power or barbarism by the stronger power. Their analysis found that when the same form of strategy was employed by both parties, the outcome occurred 45% faster, and the state's probability of success increased from 36% (when using opposite strategies, direct vs indirect) to 76% (either direct vs direct or indirect vs indirect). This analysis lends support to "barbarism" in the author's terminology, but this is couched: as in the case of the French in Algeria, a military victory does not necessarily lead to a sustained political victory.⁶⁶ This sort of strategy can generally only be countenanced by a state power that is less answerable to its own public, as in an authoritarian state, or a democratic state pre-mass media.

However, this analysis does not allow a proper comparison between a "barbaric" approach to counterinsurgency, and a "hearts and minds" strategy. Under the author's coding, 1) only strategy differentials were evaluated, and 2) several important guerrilla conflicts were dropped from the analysis. For example, perhaps the most widely appealed to successful hearts and minds campaign, the Malayan Emergency of 1948-1957, was dropped. The stated reason for this was that this is considered a "war termination" or "conciliation" rather than a pure victory; similarly, the Third Seminole war, wherein the United States simply paid the bulk of the Seminole tribe to leave Florida, is also dropped. Despite these omissions, I doubt this significantly impairs the general theme of the analysis overall as only 4.1% of conflicts were dropped under these criteria.⁶⁷

⁶⁶ Gortzak, "Using Indigenous Forces in Counterinsurgency Operations," 309.

⁶⁷ Arreguín-Toft, "How the Weak Win Wars," 109-12, 124.

Timing

While writing about the upcoming Vietnam negotiations, Henry Kissinger noted: “The guerrilla wins if he does not lose. The conventional army loses if it does not win.”⁶⁸

The namesake of the “guerrilla” war is from the Spanish diminutive for *guerra*, meaning war, originating in Spanish resistance to Napoleon’s occupation in 1808-1814. Although the guerrillas did not defeat Napoleon themselves, their resistance made the occupation resource-intensive for a power that was stretching itself thin after the loss of several hundred thousand Soldiers in Russia. This resistance was relatively easy for the Spanish to continue, particularly with English support, until their French ruler was deposed.⁶⁹ As highlighted by Arreguín-Toft’s analysis, the longer duration of a war generally indicates the weaker power is more likely to succeed.

No counterinsurgency strategy can continue indefinitely. Schaffer offers a time-series model on the constraints for democratic governments where the public support for a war declines over time, reducing the ability of the government to commit the public’s resources towards the war.⁷⁰ Guerrillas in many cases plan their actions with their adversaries elections in mind, as was perhaps the case with the Tet Offensive (during the US presidential elections of 1968),⁷¹ or the Phillipine Insurrection in 1900.⁷²

It isn’t just democracies that face time constraints, however. Even authoritarian regimes face financial constraints, as in the case of Portugal’s Colonial Wars,⁷³ and depend on some measure of public support, as highlighted in the case of the Bolsheviks’ “New Economic Policy” by Ucko.⁷⁴

⁶⁸ Kissinger, “The Vietnam Negotiations.”

⁶⁹ “Napoleonic Wars - Peninsular War.”

⁷⁰ Schaffer, “A Model of 21st Century Counterinsurgency Warfare.”

⁷¹ Gelb and Betts, *The Irony of Vietnam*, A Brookings Institute analysis as a prototypical argument for the case that the influence on the American Public was deliberate. In Karnow, *Vietnam, a History*, 537, Historian Stanley Karnow makes the opposing view- that the leadership in Vietnam viewed the only relevant arena as that in Vietnam.

⁷² MAJ Sepp, “Resettlement, Regroupment, Reconcentration,” 27–28.

⁷³ MAJ Sepp, 96.

⁷⁴ Ucko, “The People Are Revolting,” 49–55.

So this leaves the question, which strategy is more effective, and how quickly should a state expect results from the approach?

Hearts and Minds Counterinsurgency

Western counterinsurgency is not an approach without coercion or force. This approach is about using the minimum force necessary to achieve results- “the amount of military force employed must be the minimum the situation demands.”⁷⁵ Or, as one USAF Officer put it after the Gulf War: “Contrary to Clausewitz, destruction of the enemy military is not the essence of war; [it] is convincing the enemy to accept your position, and fighting his military forces is at best a means to an end[...].”⁷⁶

The RAND Study, “Victory Has a Thousand Fathers,” reviewed insurgency conflicts over the period 1978-2008 as an analysis of the effects of approaches associated with hearts-and-minds style strategies. They were able to review 30 conflicts, while dropping conflicts which had not yet concluded as of the time of the review. This is an important distinction: they have the opposite bias as does Arreguín-Toft, who *kept* unresolved conflicts, calling these cases by default ineffective approaches for the state power, because they were still going on.⁷⁷

The study has a few findings of note. First, multiple efforts must coincide in a successful counterinsurgency campaign. For example, when a state power employs human rights violations on one hand, yet pursues an education program on the other, their efforts are conflicting. By focusing on one or the other, the state could have a coherent strategic approach, but if the state is unable to coordinate these lines of effort in the same strategy, this reduces their likelihood of success.⁷⁸ Second, “repression,” while potentially successful in the short run, is unlikely to coincide with a successful state power. This corroborates the findings of Arreguín-Toft, despite the dissimilar analytical approaches.⁷⁹ Third, if the

⁷⁵ MG Gwynn, *Imperial Policing*, 14.

⁷⁶ Schneider and Grinter, *Battlefield of the Future*, 109.

⁷⁷ Paul, Clarke, and Grill, *Victory Has a Thousand Fathers*, 101–5.

⁷⁸ Paul, Clarke, and Grill, 94.

⁷⁹ Paul, Clarke, and Grill, 97.

insurgents generally are not dependent on the populace's support, disrupting tangible support (materiel, funding, labor, etc.) is more important than cutting off their support from the population.⁸⁰ The hearts and minds approach (as does guerrilla strategy) largely rests on the assumption that the guerrillas need the support of the populace, so this is not surprising.

Finally, their analysis is mixed on the efficacy of non-state militias. Comparing case outcomes in conflicts where the state did or did not employ local militias, there is no significant difference. When controlling to exclude militias that "worked at cross-purposes with the government," there is a significant correlation for success. Of course, the states that employed militias did not intend for them to work antagonistically, but some did anyways. This highlights a challenge for foreign counterinsurgents who wish to hand over responsibility to the locals as part of their overall strategy.⁸¹

Overall, the RAND study's evidence is supportive of the testable efforts from hearts and minds strategies: Improvements in infrastructure/development, pacification, strong control of the country's borders (ostensibly to cut tangible support to the insurgents, and as a proxy for governmental legitimacy), governmental legitimacy, military forces embedded in the community, and demonstrated intelligence capabilities all had strong support in their review.⁸²

Wingert conducted an extensive review of counterinsurgency campaigns over the period 1900-2017. In it, he finds similar results. Legitimacy is an important factor of success for both state and the insurgent, which he operationalized as territorial control, levels of corruption, and basic services to the population. He also emphasizes the importance of an effective local security force, which perhaps reduces the negative interactions between security forces and the local populace potentially present when state actors employ either forces from other areas of the country or foreign forces generally.⁸³

⁸⁰ Paul, Clarke, and Grill, 98.

⁸¹ Paul, Clarke, and Grill, 62–63.

⁸² Paul, Clarke, and Grill, 80–81.

⁸³ Wingert, "Essential Elements for a Successful Counterinsurgency Operation," 91–94.

The discussion on the use of militias also tends to include a suggestion that their efficacy is at least in part derived from the fact that they add to the overall strength of the state power. How many troops to employ in a counterinsurgency has not been well-established, and tends to vary significantly between conflicts. One researcher at RAND, comparing recent stability operations successes and failures of both the US and Britain suggests a rule of thumb of more than 20 Soldiers per 1,000 population, inclusive of basic police forces.⁸⁴ For comparison, at the time the article was written in 2003, the US had 2.3 police per 1,000 citizens. A more extensive review by McGrath covering similar conflicts provides another recommendation of 13.26 Soldiers per 1,000 population. Although not a consideration specific to a “hearts and minds” campaign, it is hard to conceive of a campaign that does not at least meet a minimum of proportionality.⁸⁵

Another review conducted by RAND researchers analyzed post-Cold War nation-building efforts in nine countries, where they found several common themes for success. First, having a functioning peace agreement or formal surrender (with the insurgent actor) was strongly correlated with success. Second, across several measures of investment, financial assistance supplied from Western powers was a consistent predictor of both the rule of law and of reduced violence. Third, as would be expected, the level of security forces (including domestic and international police and military) were also significant factors. Interestingly, the researchers evaluated these outcomes at the five-year mark, which allows a degree of consistency in their comparison.⁸⁶

What Can Be Said About Particular Elements of Counterinsurgency Strategy?

Further than a generalized “hearts and minds” strategy, many authors have evaluated the efficacy of specific elements of this broader approach.

⁸⁴ Quinlivan, “Burden of Victory.”

⁸⁵ McGrath, *Boots on the Ground*, 109.

⁸⁶ Jones et al., *What Have We Learned About Establishing Internal Security in Nation-Building?*

Intelligence Gathering

While extremely difficult to measure the effectiveness of intelligence itself, a few aspects of counterinsurgency research related to intelligence are noteworthy:

Shapiro and Condra's analysis of weekly, district level data from Iraq contends that Coalition killings of civilians predict increased insurgent violence and that insurgent killings of civilians predict lower violence from insurgents. Their review of the data suggests primarily an informational mechanism: when insurgents kill civilians incidentally, civilians are more likely to provide information to coalition forces. Similarly, if Coalition forces kill civilians incidentally, this is likely to induce a reduction in information received from the civilian populace. This is mediated by controls for the predisposition of the populace to the armed actors in the district: information sharing is unlikely to increase in predominantly Sunni districts after incidental insurgent killings of civilians, and civilians are unlikely to reduce information shared with coalition forces in mixed districts. These changes in violence generally do not seem to persist very long, only a few weeks at most.⁸⁷

In Afghanistan, the same set of researchers found a similar effect, but suggest a different mechanism. In Afghanistan, insurgents face a labor constraint rather than an informational constraint. The incidental killings of civilians by coalition forces has been shown to increase the supply of willing combatants, rather than a short-run change in ability of the insurgents to carry out attacks.⁸⁸

Shapiro and Weidman's research utilizing a database of cell tower constructions in Iraq over the period 2004-2009 also lends credence to the importance of intelligence gathering in counterinsurgency. Analyzing the impact of new cell-tower construction, they posit that a cell tower's construction can impact insurgent violence through two main mechanisms, 1) signals intelligence, where the coalition is better able to surveil the insurgents, or 2) human intelligence, where the local populace is provided with

⁸⁷ Condra and Shapiro, "Who Takes the Blame?," 182–85. For those skeptical of the information mechanism, the authors include a thoughtful set of robustness checks the reader is encouraged to review.

⁸⁸ Condra et al., "The Effect of Civilian Casualties in Afghanistan and Iraq," 4.

a lower cost (reduced risk of reprisals) to providing intelligence to the coalition. The identification is a difference in the area of effect: if the signals intelligence route is more prevalent, the reduction in violence should extend past the coverage area, whereas the human intelligence route should be concentrated to the area of coverage specifically. Indeed, the data shows support for both mechanisms; the greater access to signals intelligence and human intelligence are both shown to reduce violence in the area significantly.⁸⁹

Finally, Souleimanov and Aliyev make a case study comparison in the insurgencies in the Caucasus. They suggest that the use of indigenous forces in this context, among other factors, enables greater access to intelligence. This difference, they suggest, gave the Russians better counterinsurgency outcomes in Chechnya relative to Dagestan.⁹⁰

Targeted Killings

A major component of the hearts and minds strategy is severe discrimination in violence: civilian casualties are argued to be a significant boon towards increased insurgent capacity. The most discriminatory violence a state can employ in a counterinsurgency is targeted attacks on key officials within the insurgency, on the premise that these individuals are key “masterminds,” or social connections between disparate groups, that when removed, impair the ability of the insurgency to conduct operations. This is still an ongoing debate, but a few findings are worth noting.

Wilner’s research on targeted killings within the Afghanistan insurgency makes a strong case for targeted killing’s efficacy by reducing the professionalism of the Taliban. Wilner examines a few specific targeted killings, and evaluates insurgent activity before and after each attack. By comparing the kinds of the attacks employed by insurgents (e.g. IED’s, suicide bombings, ambushes), the proportion of

⁸⁹ Shapiro and Weidmann, “Is the Phone Mightier Than the Sword?,” 265–69.

⁹⁰ Aslan Souleimanov and Aliyev, “Evaluating the Efficacy of Indigenous Forces in Counterinsurgency,” 392–416.

attacks that are successes or failures, and the kinds of targets selected (are the targets more difficult to attack or easier?), his evaluation bolsters the case for targeted killings.⁹¹

Further, Johnston's cross-conflict analysis over the period 1975-2003 looks specifically at leadership decapitation, a targeted killing of the most powerful figure or figures in an insurgent organization. This reduces the chance of measurement error and plausibly characterizes the relevance of the most important targeted killing a state could carry out in a counterinsurgency. His research indicates that successful leadership decapitations increased the likelihood of concluding a war, and a state power's victory, in that year by about 30%. Further, his analysis indicates that both the number of dead in the war, and the quantity of attacks from insurgents, decline significantly following a successful leadership decapitation.⁹²

Airpower in Counterinsurgency

Although not an element tied to a hearts and minds strategy, the use of airpower has been a major element of coalition counterinsurgency in both Iraq and Afghanistan.

The critical analysis of airpower in counterinsurgency is generally in the context of historical campaigns which may have limited validity in the contemporary context. Chappell considers the efficacy of discriminate airstrikes in the Mau Mau revolt (enabled by significant intelligence work), and finds it to have significantly reduced enemy morale and impacted their ability to conduct operations.⁹³ Reaching back further, the RAF is widely pointed to as the decisive element in the conclusion of the Dervish Uprising in British Somaliland, a conflict which had persisted for 20 years before air power was brought in and ended the uprising over just three weeks early in 1920.⁹⁴ The takeaway seems to be, first, that airpower terrorizes the insurgent. It removes the freedom of action that he may otherwise have, and

⁹¹ Wilner, "Targeted Killings in Afghanistan," 319–22.

⁹² Johnston, "Does Decapitation Work?," 62–65.

⁹³ Chappell, "Airpower in the Mau Mau Conflict," 506, 508.

⁹⁴ BG Roe, "Air Power In British Somaliland, 1920," 80.

second, forces him to adjust his communications, logistics, and operations to be able to act. A convoy between towns is easy and quick, but a sitting duck in the context of an air assault. Other avenues of logistics must be employed by the insurgent which have reduced capabilities, are more expensive, and potentially demoralizing.

In Afghanistan, at least, the use of airstrikes c. 2010 were tied to the increased ground presence, not simply used independently of forces with eyes on the field.⁹⁵ The way that airstrikes are used can vary drastically depending on the context. In the Mau Mau revolt, the RAF employed cordoned "no-go zones," specific regions where they were permitted to use munitions, with dense urban settlements marked as off-limits for the duration of the conflict.

This isn't the only manner that airstrikes can be used, of course. Recently, in fighting against an ISIL-affiliated group in the Philippines, the government there has employed much looser ROE in their strategy. While ground forces clear buildings in urban settings, they also apparently employ unguided airstrikes in their fight.⁹⁶ "unguided" does not necessarily mean imprecise, as the Mau Mau conflict demonstrated, but the impression in the minds of the local populace of the tactics employed is the important factor.

In an analysis on airstrikes in the Vietnam War, Kocher et al evaluated the impact of loose ROE with airpower on area control. Using a set of data including "virtually every payload of munitions" dropped over the Republic of Vietnam between 1965 and 1975 and a large set of controls, they test how dropped munitions related to subsequent control of the area. They show increased territorial control by the Viet Cong following airstrikes.⁹⁷ These results contrast with the results of other analyses, but also in the methods employed in the airstrike campaign. How airstrikes are employed in an insurgency appears to be critically important in determining whether they will help, or hurt, the state power.

⁹⁵ Muñoz, "As Surge Strategy Progresses ..."

⁹⁶ Demerly, "The Aviationist."

⁹⁷ Kocher, Pepinsky, and Kalyvas, "Aerial Bombing and Counterinsurgency in the Vietnam War."

Development Spending

Berman et al conduct a study of hearts and minds in Iraq specifically, although they look exclusively at the efficacy of the Commanders' Emergency Response Program (CERP).⁹⁸ They find a significant reduction in violence on a per capita basis, with \$1 towards CERP spending yielding 1.59 fewer violent incidents from their analysis, using the DoD SIGACTS database as their dependent variable. Interestingly, this correlation only holds for the period 2007-2008, when the Iraqi counterinsurgency strategy changed dramatically under General Petraeus.

A randomized control trial run by Lyall and Wolfe assigned 2,597 youths in Afghanistan to either vocational training, a \$75 cash transfer, both, or neither. In it, they measured the subjects' economic outcomes and support for either the government or the Taliban a few weeks after the treatment, and again several months after. Their research showed that while the vocational training was the only significant predictor of economic outcomes, the only predictor of reduced insurgent support *and* increased support for the government was receiving both the training and the cash. They suggest this is because it shows the subjects a better understanding of their concerns: the cash covers their immediate, short term needs, and the training ensures the prosperity can continue.⁹⁹

Population Relocation

Whether it is termed "Population Relocation," "Forced Migration," or something else, it has a reputation as being strongly associated with barbaric repression tactics. In RAND's review of recent counterinsurgencies, they planned to evaluate the practice, specifically in the situation where "Relocated populations were sufficiently compensated, and their quality of life improved." Yet they were unable to, because none of the counterinsurgencies even attempted the practice.¹⁰⁰ Yet, looking at history, and according to some researchers, this is not always the case.

⁹⁸ Berman, Shapiro, and Felter, "Can Hearts and Minds Be Bought?," 801.

⁹⁹ Lyall and Wolfe, "Some Aid Programs Worked Better Than Others."

¹⁰⁰ Paul, Clarke, and Grill, *Victory Has a Thousand Fathers*, 47.

The West has used relocation with mixed results. Looking to the Malayan Emergency, “New Villages” were used to isolate the public from the guerrillas (and the guerrillas from the public). Here, the villagers had no general taxes imposed on them, elected their own village councils after initial setup, and had government grants for several basic services to the community. Researcher Richard Clutterbuck argues that the “lack of murdered village officials” here is one piece of evidence for the appreciation the villagers had for these settlements, many of which are still around to this day.¹⁰¹

In a 1992 review of counterinsurgency doctrine, Major Sepp Kalev highlighted the various instances over the past century when it had been employed successfully or not. In some cases it only comprised a small portion of the overall counterinsurgency’s efforts, and in others it was critical to their success. The central theme was that if resettlement can 1) effectively isolate the insurgent from tangible support, and 2) effectively provide for the needs and happiness of the resettled, then relocation is a practice worthy of contemplation in a counterinsurgency strategy.¹⁰²

Of course, an assessment on population relocation cannot be concluded without discussing the crueler cases. As Ben Valentino understated, “forcing people to abandon their homes, belongings, and history for an unknown life in distant lands often requires considerable coercion.”¹⁰³ Resettlement was used by the Soviets, Nazis, and others as part of ethnic cleansing, and the perpetrators of these actions paid no consideration to the welfare of those who were moved. The difference is in how the resettled are provided for, as MAJ Kalev notes, it depends on whether the people consider their new homes to be better or worse than their old. Are they being moved from an area where they were previously exposed to violence, and now do not experience violence? What services do they now have access to?¹⁰⁴

¹⁰¹ Clutterbuck, *Conflict and Violence in Singapore and Malaysia, 1945-1983*, 187.

¹⁰² MAJ Sepp, “Resettlement, Regroupment, Reconcentration,” 97–106.

¹⁰³ Valentino, *Final Solutions*, 5.

¹⁰⁴ MAJ Sepp, “Resettlement, Regroupment, Reconcentration,” 111–12.

CHAPTER 4

DATA

Dependent Variables

The main dependent variables are drawn from the website, "Iraq Body Count." This website is run by the Conflict Casualties Monitor based in the United Kingdom. This project has been ongoing since 2003, and the goal of the project has been to compile a database of all violent deaths in Iraq since the military intervention began. The project sources data from "crosschecked media reports of violence leading to deaths, or of bodies being found, and is supplemented by the careful review and integration of hospital, morgue, NGO and official figures or records."¹⁰⁵ Although most events are crosschecked, approximately 1/5th are from single sources as of the time of this report. Because this database is continually updated, I have elected to work off of the database as it existed on 7 October 2020. The projects divides each entry by perpetrator, governorate, weapon used, month of event, and quantity of individuals killed per event.

In addition to the deaths due to anticoalition/government forces (insurgents), it is important to note the high amount of deaths from "Unknown Actors." For the period 2003-2016, unknown actors are responsible for 2.3x times as many deaths as those attributable to insurgents. If we restrict the time period under consideration to deaths prior to March 2013, when violence began to increase, we see that unknown actors are responsible for 4.5x as many deaths as those directly attributable to insurgent activity, and 4.9x as many deaths during the period under study (February 2004 to October 2008).

Because of the large number of deaths due to an unknown actor, it is worth considering these deaths in this analysis. The IBC compiles its data from a wide variety of sources, which can be separated into two main categories: 1) government statistics, and 2) media reports. A reasonable hypothesis would

¹⁰⁵ "About IBC :: Iraq Body Count."

be that the portion of actual deaths due to insurgent activity that can be assigned by IBC to insurgent activity varies as a function of the total deaths over a period of time. If only a dozen or so are killed by AQI in one month, for example, a newspaper could easily present a short article discussing the individuals who were murdered, and their likely killers. Conversely, if a month has over 1,000 individuals killed, we could expect that the number of individuals who may be discussed at length would be in excess of the news media's capacity to report. They will likely select a few particularly noteworthy, easily attributable violent events, which would then be assigned a perpetrator in the IBC database leaving the other events unmentioned. Indeed, performing a simple linear regression of 1) the ratio of deaths due to anticoalition forces to the deaths due to unknown actors on 2) the total individuals killed in a month by either perpetrator variable, we see a modest positive relationship. And as shown below, the ratio increases when the number of deaths were highest, and declines again as deaths decline as well.

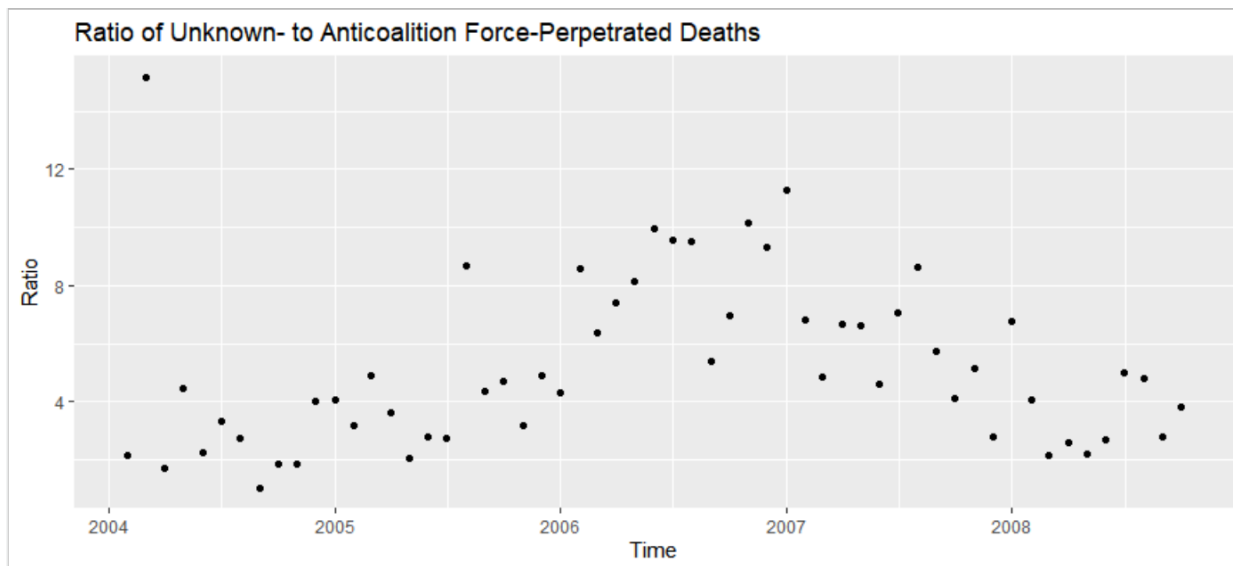


Figure 2, Ratio of Unidentifiable Perpetrator Deaths to Anticoalition Force Deaths

This is an alternative measure to a commonly used, government-sourced figure, the SIGACT database maintained by the Department of Defense. This database is a compilation of “significant activity reports” that has been periodically release by the US Defense Department upon researcher request, and contains reports of insurgent attacks on coalition forces, government of Iraq forces, and

attacks on civilians. This database has been used by other researchers for similar analyses. Neither the SIGACT database nor the Iraq Body Count project is a perfect measure tracking every event precisely. There are biases in both sources to note.

First, the SIGACT database only records events that coalition forces witnessed. This significantly undercounts violence, particularly in the areas where there are no US Forces present. Hearts and minds theory predicts that integrating troops into the towns of the public should reduce violence; if putting troops on foot patrols and in the towns means that they will witness more violent events, then this data would bias results in precisely the opposite direction of the expected effect of the strategy.

Second, the SIGACT database is maintained by a party with a stake in the events reported. If an individual dies, and this individual could be categorized either as a combatant or a civilian, the DOD saves face and could potentially reduce violence in the future by categorizing this death as a combatant in its communications, a propaganda bias. The more the populace perceives the combatant to be incapable, and the more the populace perceives the coalition to be acting with a steady hand, the less support they are prone to give to the insurgent in the hearts and minds model. Further, the DOD may undercount deaths overall, using a similar justification.

The SIGACT database may also undercount events that for whatever reason, a reporting Coalition Soldier may not wish to record, a Soldier bias. For example, a well-known event is the “Mahmudiyah rape and killings,”¹⁰⁶ wherein a group of four US Army Soldiers snuck away from their command, brutally assaulted and murdered an Iraqi family of four, later being sentenced to life in prison. Although this is an extreme case, given that these events occur on a spectrum from “just action” to “morally reprehensible,” in the eyes of Soldiers on patrol who kill any individual(s), there may be a significant number of killings that they see as ambiguous and either omit reporting or mischaracterize to their higher command to avoid scrutiny.

¹⁰⁶ Frederick, *Black Hearts*.

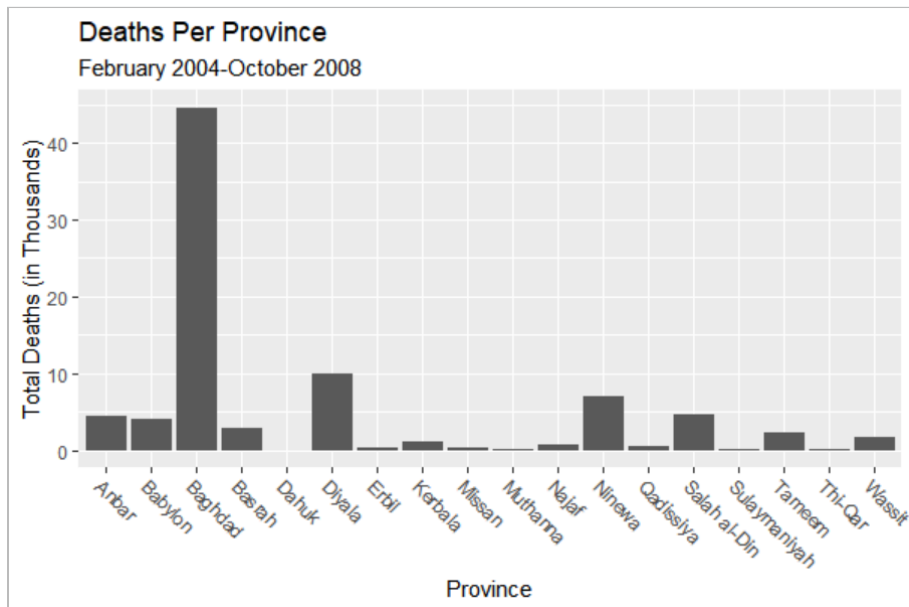


Figure 3, Deaths by Province, February 2004 - October 2008

The Iraq Body Count project has measurement error that should be made explicit. One bias is reporting bias. Because many details for events in their database are provided by news outlets, they are dependent on reporters for their data. An event with dozens of individuals dead is more likely to be covered by multiple news outlets and for a longer period of time as these events are more likely to induce readership. The project is therefore likely undercounting events that have smaller impacts or are less sensational.

The IBC database is also run with a mission, and hence has an activist bias. The project leaders are activists who go out of their way to place blame for violence they track on the UK and the US, the leaders of the Coalition forces in Iraq. Because of this, in an effort to more viscerally engage Western consumers of their data, they may be more likely to assign as perpetrator either Coalition forces or Iraqi government forces. They may also show the reverse bias of the SIGACT database, wherein a slain individual whose status as combatant or non-combatant is ambiguous, would be more likely to be assigned as civilian.

Independent Variables

Maneuver Battalion Data

A major control used in this study is the number of Coalition maneuver battalions in each district per month, which I aggregate to the governorate level to match the granularity of the dependent variable. The dataset covers the period from February 2004 through October 2008. A maneuver battalion is the US military's term for a unit that is primarily combat-oriented, and generally has in the range of 500-1000 Soldiers, averaging around 780. This data is sourced from research done originally in the paper "Is the Phone Mightier Than the Sword? Cellphones and Insurgent Violence in Iraq." The authors cite Carrie Lee Lindsay, then a Ph.D. student at Stanford, as their original source for the data.

The number of battalions recorded does not vary as significantly as other data, but aligns well with publicly-available data characterizing the total number of US Servicemembers in the country over time, with a low near the end of 2006, and a ~40% increase in 2007.

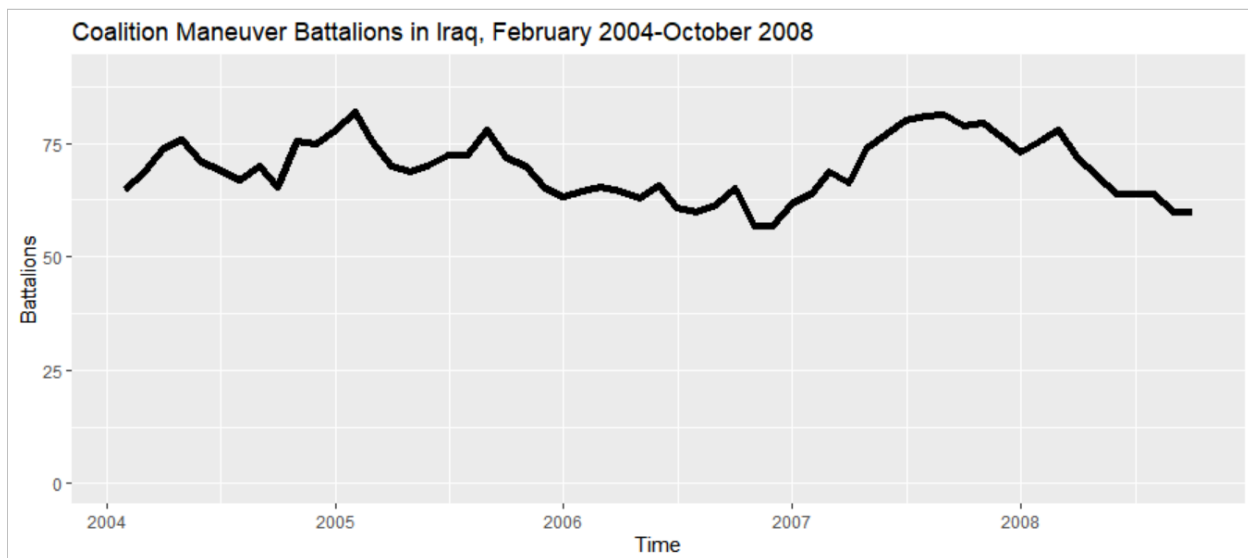


Figure 4, Coalition Maneuver Battalion Presence In Iraq Over Time

Reconstruction Spending

The data on reconstruction spending is derived from the U.S. Army Corps of Engineers Gulf Region Division's Iraq Reconstruction Management System (IRMS). The data provides information on

spending projects between January 2003 and December 2008, including the type of project, project length, and the amount spent on each project.¹⁰⁷ The data includes all U.S. reconstruction spending over the time period of the study from a multitude of organizations involved in the reconstruction. This data has been cleaned by the “Empirical Studies of Conflict” project from Princeton University based on “extensive conversations with individuals involved in administering reconstruction spending.”¹⁰⁸

The timing of spending is allocated by project start and end date. A project’s entry in the database includes a total amount spent on the project, actual start date, and actual end date. To assign this spending to a specific time period, the spending is uniformly distributed from start date to end date. This may or may not reflect the actual course of spending in any project, but reflects the state of the data available. While a project is going on, each dollar “spent” is actually in various stages of being expended. A dollar may be allocated to a particular section of a project, promised to a contractor, earned by a subcontractor, or actually transacted. Dollar expenditures may occur more significantly at either the beginning, middle, or end of a project without any indicator from the database past the beginning and ending of the project. The median length of each project is 90 days, so at aggregation levels of 1 quarter or larger, this caveat becomes less important.

Descriptive Statistics - Selected Coalition Spending in Iraq per Month, February 2004-October 2008

Statistic	N	Mean	St. Dev.	Min	25th Pctl	Median	75th Pctl	Max
Education Spending (\$10k's)	57	36.9	15.9	12.9	27.0	33.2	42.7	86.9
Electric Spending (\$10k's)	57	28.9	17.3	0.1	15.9	28.7	41.2	90.8
Healthcare Spending (\$10k's)	57	28.1	15.7	0.1	16.4	27.9	34.1	92.0
Transportation Spending (\$10k's)	57	46.6	27.7	6.2	32.8	42.9	56.0	183.3
Water/Sanitation Spending (\$10k's)	57	194.6	90.9	39.0	153.7	200.0	243.9	463.5
Militia Funding (\$10k's)	57	35.5	61.0	0	0.4	5.1	24.6	216

Table 1, Selected Coalition Spending Statistics

¹⁰⁷ Stuart W. Bowen, Jr., “SIGIR 13-006,” 5–6.

¹⁰⁸ Berman et al., “ESOC Codebook V3.”

Due to the imprecise nature of the spending allocation rule used in this analysis, this effectively amounts to an attenuation bias. There is an assumed error term embedded in the spending variables, with mean zero. This will not systematically alter the mean level of any spending category up or down, but will dampen any parameter estimate towards zero. Noticing this attenuation bias should make any assessment of the impact of these spending variables more significant than the regression results might indicate.

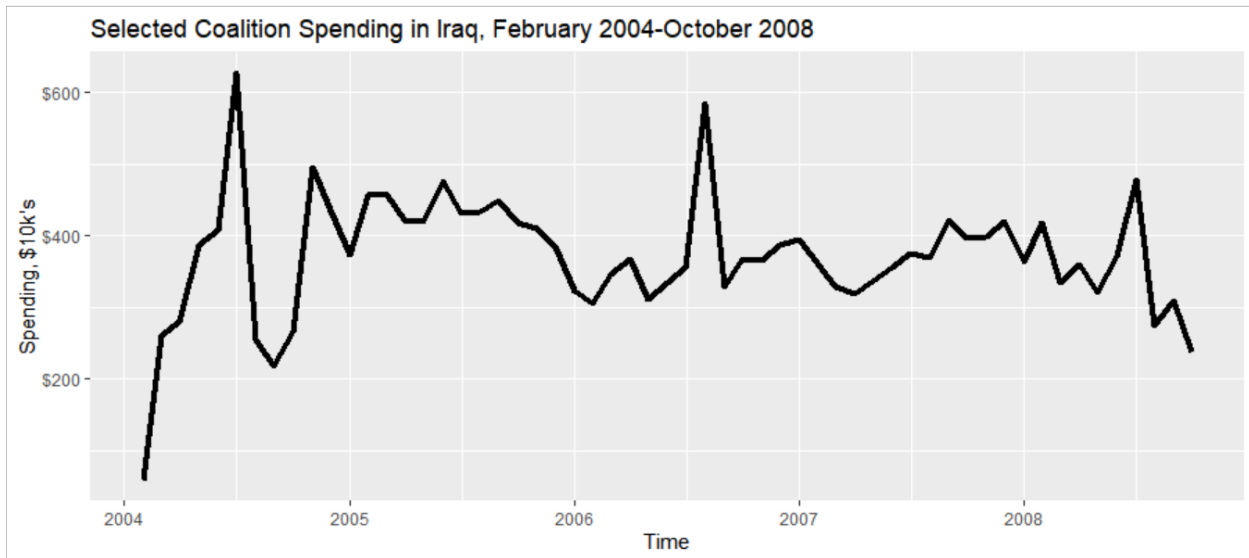


Figure 5, Selected Coalition Spending in Iraq Over Time

CHAPTER 5

METHODOLOGY

Testing FM 3-24 Lines of Effort

A hearts and minds approach has been employed in many different ways, with varying levels of adherence to the grounding theory. In Iraq, this level of adherence has certainly changed over time.

The best test of the hearts and minds model, as employed by Coalition forces in Iraq ca. 2004-2008, would be to evaluate according to the doctrine employed by the same at the time they were operating. They were generally guided by the approach outlined in FM 3-24, written by GEN Petraeus and others and published in 2006, which was adapted into a small-unit version published in 2009, FM 3-24.2, “Tactics in Counterinsurgency.” This manual suggests the following “Lines of Effort,” (LOE’s). An LOE is defined as “A line that links multiple tasks and missions using the logic of purpose—cause and effect—to focus efforts toward establishing operational and strategic conditions.”¹⁰⁹

1. Establish civil security.
2. Establish civil control.
3. Support HN security forces.
4. Support to governance.
5. Restore essential services.
6. Support to economic and infrastructure development.
7. Conduct information engagement.

These individual LOE’s form the basis of how I will assess the hearts and minds effort in Iraq. To caveat this; FM 3-24.2 emphasizes that these are *suggested* lines of effort. The particular LOE’s employed are determined by the judgement of the commander, dependent upon the context the unit is

¹⁰⁹ *Operations, FM 3-0, 6–8.*

operating in. Earlier stages of counterinsurgency will emphasize establishing civil security more than they will emphasize economic development. Different insurgencies and different regions of a conflict will face different contexts. Finally, FM 3-24.2 argues that “Success in one LOE reinforces successes in the others.” That is, effort towards one LOE should be expected to simultaneously improve the situation along another LOE.¹¹⁰

Due to data constraints, this study will be focusing on LOE’s 3, 5, and 6. LOE 3, “support to HN security forces,” can be proxied through spending on support to local militias. LOE 5, “restore essential services,” can be proxied through spending on electricity, water and sanitation, and healthcare spending. LOE 6, “support to economic and infrastructure development,” can be proxied through spending on transportation projects.

Econometrics

To assess these approaches’ efficacy, I will employ a fixed effects model at the provincial-monthly level, estimating the equation:

$$D_{it} = \beta * X_{it} + \alpha_i + \gamma_t + \epsilon_{it} \quad 6$$

Where D_{it} is the outcome variable “total deaths” in province i in month t . X_{it} is a vector of characteristics about province i in month t , and β is a vector of parameters describing the impact on deaths from each characteristic. α_i is a fixed effect for each province, and γ_t is a fixed effect for each month. To estimate these parameters, I will use the within estimator (also called “analysis of covariance,” or “ANCOVA”).

The fixed effects model is convenient, and enables us to control for most unobservable factors. First, by including dummy variables for each province, we control for any factors that vary across provinces, but remain fixed over time. So if population levels are assumed to be relatively stable over the period in question, then you don’t have to control or adjust for population. If there are specific

¹¹⁰ *Tactics in Counterinsurgency, FM 3-24.2, 3-7 through 3-8.*

tensions in a province related to the demographics of the province, i.e. what proportion of the population is Kurdish, Shi'ite, or Sunni, is controlled for, as long as this is assumed to be constant over the sample we evaluate. The time fixed effects provide a similar level of control for unobservable factors. If one month has an inordinate level of violence due to a coordinated offensive from a prominent insurgent organization or a seasonal impetus for violence, then I account for this with the dummy variable for that month.

Further, I will then iterate this process over time. Equation 1, above, only evaluates the immediate, contemporaneous association of deaths in a province with coalition efforts during the same month. Much of the anticipated effect of a hearts and minds approach occur over time, and are not expected to appear immediately. To measure the impact over time, I will conduct the same regression, but changing the dependent variable "total deaths" to the deaths in the subsequent month in the same province.

$$D_{it+1} = \beta_1 * X_{it} + \alpha_i + \gamma_t + \epsilon_{it} \quad 7$$

This (equation 2) estimates the impact of X_{it} in the month after the coalition effort was made, and β_1 indicates that we are now measuring the impact of coalition efforts one month after the effort's application. Similarly, the same regression can be repeated for each subsequent month, showing how the impact changes and/or persists over time:

$$D_{it+j} = \beta_j * X_{it} + \alpha_i + \gamma_t + \epsilon_{it} \quad 8$$

Where j is the number of months ahead I am estimating the impact β_j of coalition efforts X_{it} applied in month t and province i .

Finally, I will include a simultaneous regression model as a robustness check. This will estimate in one regression the same outcome variable D_{it} , but regressed on the impact of coalition efforts over the past j months. This enables me to control for changes in the average distribution of various coalition efforts over time. For example, in one regression from equation 3, I estimate the impact of education

expenditures at time t , on deaths at time $t+j$, holding other efforts *at time t* constant. The model in equation 4 enables me to hold efforts across a 20-month period of time constant.

$$D_{it} = \sum_{t=-20}^0 (\beta_{jt} * X_{it}) + \alpha_i + \gamma_t + \epsilon_{it} \quad 9$$

This model provides a considerable robustness check by controlling for changes between provinces over time that induced responses from the coalition, but is limited in the story it can tell. Because it includes so many more controls it loses considerable variation in the data available, and has a drop in statistical power.

Choice Framework

Referring back to the choice framework introduced in chapter 2, we can consider the data and parameter estimates generated from the analysis above in the same context.

The outcome variable in this study, civilian deaths from insurgent violence, is a noisy measure of insurgent capacity, insofar as insurgents operate at capacity or at a generally fixed percent of their capacity. Reconstruction spending provides a noisy measure of goodwill. The maneuver battalions and funding for militias can be primarily interpreted as measures for violence application, but they could also be seen as loose instruments for perceptions of security. So, the parameter estimates on maneuver battalions and militia funding on deaths should primarily be interpreted as $\frac{\partial \text{capacity}}{\partial \text{violence}}$, and the parameter estimates for reconstruction spending on deaths may be understood as $\frac{\partial \text{capacity}}{\partial \text{goodwill}}$.

The two main differences in this context for a barbarian theory and a hearts and minds theory for the returns to efforts against an insurgency are the magnitude of $\frac{\partial \text{capacity}}{\partial \text{violence}}$, and the sign on $\frac{\partial \text{capacity}}{\partial \text{goodwill}}$. It is hard to make an assessment of $\frac{\partial \text{capacity}}{\partial \text{violence}}$, as it is usually negative for both strategies, only considered to be less efficacious for the hearts and minds strategy. However, given that the beginning of 2007 marked a transition point for the coalition in Iraq, we can compare the value this takes before and

after the start of the year. The tactics employed by coalition forces changed drastically from this point forward. If $\frac{\partial \text{capacity}}{\partial \text{violence}}$ is larger in magnitude from 2007 on, and at or near zero before, this bolsters the case for the hearts and minds strategy. This would indicate that the generally indiscriminate tactics being used before this period were less effective than the “population-centric” tactics employed by the coalition thereafter. Conversely, if the opposite change holds, then this bolsters the case for a more aggressive approach to counterinsurgency in the Iraqi context. The other main value for evaluation is $\frac{\partial \text{capacity}}{\partial \text{goodwill}}$. If this value is negative, then this provides evidence for the hearts and minds strategy.

Potential Biases

Model-Specific

This setup, while convenient, may omit certain confounders. The assumption underlying the fixed effects model here is that there may be two categories of omitted variables. The first, that there are some omitted variables that vary across provinces, but do not vary over time. These omitted variables are controlled for by including a fixed effect for province (α_i , above). These variables would be things like demographic profile, culture characteristics, and terrain. The second, that there are omitted variables that vary over time, but do not vary by province. These would be things like influences from seasonality (violence in Iraq has tended to spike in August, and drop just thereafter), overall budget increases for either armed actor, or a change in training for US Servicemembers who may be assigned to any unit in the area of operations. This does not control for omitted variables that vary both by month and province, are correlated with the characteristic variables X_{it} , and influence total deaths.

For instance, if there are major population shifts part of the way through the time period of our analysis, this does not account for that. Internally displaced persons (IDP's) are known to have been significant in Iraq at the time, reaching ~10% of the country's population by 2011.¹¹¹ This implies that

¹¹¹ Marfleet, “Displacement and Denial.”

whatever impact these shifting demographic profiles have on the relationship between X_{it} and D_{it} is omitted, potentially biasing the estimate β .

Further, if the impact β varies over time, this analysis would ignore that. This actually seems quite likely. As noted earlier, Berman et al's first-differences modelling only detected a significant impact in the final period of review: 2007-2008.¹¹² This difference in impact matches the expectation given in FM 3-24.2, considering each line of effort as part of a whole; using only one tactic will not lead to success, they are mutually dependent. This analysis, rather than identifying the impact of each line of effort on its own, would identify the average impact of these coalition efforts over the period measured as applied. If these hearts and minds LOE's were only effective while deployed in concert with other operational shifts employed by coalition forces, then the β estimates here would underestimate the true impact of the change in strategy from the beginning of 2007 onward. The estimates here, then, should rather be interpreted as measures of the hearts and minds strategy as employed by the US in Iraq specifically, not the efficacy of the strategy generally. To compare the impact of these LOE's before and after this strategy shift, I will run separate analyses as well, splitting the dataset into pre- and post-January 2007.

Corruption

Spending in Iraq has been notoriously corrupt.¹¹³ Each spending project likely has vastly different levels of corruption, from zero to, in a few cases, potentially the entirety of the project. However, from a researcher perspective we lack information on where and how the corruption is distributed; from our perspective it is randomly distributed among spending projects. The first effect of this bias would be to dampen the parameter towards zero. Funding that is recorded as being spent towards a particular LOE actually was not in the case of graft, so the record we have of an independent variable's value is higher

¹¹² Berman, Shapiro, and Felter, "Can Hearts and Minds Be Bought?," 800–801.

¹¹³ al-Khatteeb, "Corruption in Iraq"; Chwastiak, "Profiting from Destruction"; Abdullah, "Corruption Protection"; Allawi, *The Occupation of Iraq*, 361–64; Dobbins, *Occupying Iraq*, 177–82.

than the “true” value. Second, it may conceivably add a negative bias to the parameter estimate. If funding towards a project is corruptly routed not just to a thief not party to the conflict, but eventually towards an insurgent element, this spending would actually improve the insurgents’ ability to operate. If this played a significant role in corruption at any time during our analysis, this would be a major drawback to this approach.

Additionally, if corruption is positively associated with the size of government and coalitions operations, this could pose further challenges. Research has shown in a variety of societies that corruption is associated with decreased trust in government,¹¹⁴ support for insurgent groups,¹¹⁵ and that perception of a high level of corruption can suppress participation in government.¹¹⁶ The mere presence or perception of corruption may reduce trust in government, which could negatively bias the parameter estimates generated in the analysis here.

A Potential “Third Variable”

If there is a factor not included in the fixed effects model proposed, that is correlated with one of the proxy variables for a line of effort and influences the outcome variable, then the parameter estimates will be biased. One potential omitted variable could be called “other counterinsurgency efforts.” That is, there are certainly other things that Coalition forces have been trying to do to reduce violence in the country. However, without identifying these efforts and enumerating them explicitly, they cannot be precisely controlled for. In the model proposed above, however, this should not be a significant challenge to this model.

Why? Consider the impact on deaths from transportation spending. If the Coalition chose to target transportation spending in Ninewa province in 2005 as an attempt to restrict violence, we would expect them to push other efforts simultaneously, that might bias our estimate. But because we

¹¹⁴ Villoria, Van Ryzin, and Lavena, “Social and Political Consequences of Administrative Corruption.”

¹¹⁵ Deckard and Pieri, “The Implications of Endemic Corruption for State Legitimacy in Developing Nations.”

¹¹⁶ Neshkova and Kalesnikaite, “Corruption and Citizen Participation in Local Government,” 689.

incorporate not just the transportation spending variable, but several other spending categories, we are implicitly controlling for a generalized “other Coalition efforts” variable in the analysis. This approach should remove most of the bias from the omitted “other counterinsurgency efforts” variable.

Reverse Causation

What impact have we seen from hearts and minds lines of effort? At first glance, the impact appears to be significant. But, we must also include the potential for deaths to be causing the coalition efforts themselves. Given a particular level of violence, this may invite efforts from the Coalition to suppress it. Or, the opposite may be true for some variables. If there is a large level of violence in one province, the coalition may reduce activity along a specific line of effort until violence is decreased. If either of these holds independent of the other control variables, then this would bias the estimates produced here.

CHAPTER 6

RESULTS AND ANALYSIS

Limited Fixed Effects Model

As a baseline, it is worthwhile to evaluate the effect of troop levels alone on insurgent violence, reported in Table 2, Column 1. If we assume spending on hearts and minds priorities to be orthogonal to the outcome variable, then the parameter estimate of the effect of troop levels on violence should be unchanged whether we include spending variables or not. Using a within estimator, I find a statistically significant negative impact between the level of maneuver battalions in a province and the number of civilians killed by insurgents of -14.9. Meaning that for each additional battalion in a province, I observe an average of ~15 fewer civilians killed.

If this is the only driving force behind the impact the coalition's efforts have on violence, then adding in spending variables on the other lines of effort should result in no change to this estimate. A model with extra variables that do not influence deaths should not significantly impact this estimate of 15 fewer deaths per province per month. If, however, the other efforts as measured by spending in those categories were both correlated with coalition forces in the area (as is assumed), and influences deaths in the province, then this estimate should change. Indeed, when the coalition sent troops to an area, they likely 1) were attempting other efforts to reduce violence, and 2) sent troops to the province because there was an elevated level of violence, relative to the other provinces, at that time. To control for those efforts and to assess their impact, I estimate the full regression model.

Contemporaneous Fixed Effects Model

The full-controls model is reported in Table 2, Column 2. Once we incorporate spending variables, a few things are noticeable. First, the negative effect of troops in a province on insurgent violence is significantly attenuated, the estimate is now only -1.2 deaths per additional battalion in the

province. This suggests that the other efforts employed by the coalition to reduce violence were a) positively correlated with troop presence, and b) associated with reductions in violence.¹¹⁷

Impact of Coalition Forces Efforts in Iraq, February 2004-October 2008			Looking at other Coalition efforts, the two most significant effective measures reported are education and militia funding. Contemporaneously, we see a reduction of 8.4 and 6.2 deaths per \$10,000 spent, in education and militia funding, respectively.
Dependent Variable: Deaths from Unknown Actors and Anticoalition Forces			
	(1)	(2)	
Education Spending (\$10k's)		-8.426*** (2.896)	I note a significant and positive association between insurgent violence and spending on electric and water/sanitation infrastructure.
Electric Spending (\$10k's)		4.676* (2.669)	
Healthcare Spending (\$10k's)		-1.792 (3.541)	
Transportation Spending (\$10k's)		0.516 (0.993)	
Water/Sanitation Spending (\$10k's)		0.825* (0.442)	
Militia Funding (\$10k's)		-6.223*** (1.022)	
Maneuver Battalions	-14.857*** (5.252)	-1.211 (4.170)	
Observations	1,026	1,026	
R ²	0.056	0.254	
Adjusted R ²	-0.018	0.191	
F Statistic	56.029*** (df = 1; 951)	45.992*** (df = 7; 945)	
Significance Levels:		*p<0.1; **p<0.05; ***p<0.01	

This could be interpreted as understandable if a significant reason for these expenditure categories were for repairs to infrastructure damaged in actions correlated with insurgent violence, as in repairing a road after an IED blast. If this or something like it is the case, we should expect these point estimates to at least reduce to zero over time in the lagged models ahead.

¹¹⁷ Or, less likely, that these “other coalition efforts” were negatively associated with troop presence and simultaneously counterproductive, increasing total deaths.

At this point, this is only considering the association during the same month of spending and the time period in which the violence occurred. Hearts and minds strategists would posit that it takes some time to see the impact of goodwill; insurgent violence should reduce over time. If the mission is to persuade the locals to end their support for the guerrilla, this effect would not be immediate.

Lagged Fixed Effects Model

To account for these factors, I run multiple fixed effects models, using a lag of all explanatory variables, displayed in Table 3. These models answer the question: How do Coalition efforts in month “t=0” impact insurgent violence in month “t=1,” “t=2,” etc.? If \$30,000 are spent on education in Anbar province in March 2004, what impact will this have on the level of violence in April, or September?

Looking at Table 3, we see a few variables’ impact appear to change over time. Initially, education seems to have the most dramatic impact. From one month after spending, \$10,000 in education spending is associated with a reduction of 9.1 civilian deaths per province. However, this impact fades steadily as each month passes. Education spending could potentially impact insurgent violence in two ways: 1) inducing goodwill among the populace, or 2) putting individuals in school who would have otherwise joined an insurgent group. If the impact is predominantly about removing insurgents from the battlefield, then the most significant impact should occur earlier, when the outlay occurs or immediately thereafter. If the impact is predominantly about currying favor among the populace, the impact should take longer to develop, and persist indefinitely. As Figure 6 shows, the largest reduction in violence occurs in the first few months after spending occurs, with the impact steadily decreasing over time. The data appear to lean towards the second explanation. Data on foreign recruits to AQI indicate that by far their most commonly listed occupation at the time of application was “student.”¹¹⁸ To the extent that domestic recruits’ characteristics resemble foreign recruits, this would corroborate the diversionary hypothesis.

¹¹⁸ Peter Bergen et al., “Bombers, Bank Accounts and Bleedout,” 44.

Deaths as a Function of Coalition Efforts in Iraq Over Time, February 2004-October 2008

	Dependent Variable: Civilian Deaths from Unknown Actors and Anticoalition Forces										
	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Education Spending (\$10k's)	-8.426*** (2.967)	-9.144*** (2.837)	-8.869*** (2.742)	-8.244*** (2.288)	-7.075*** (2.164)	-6.899*** (1.865)	-5.270*** (1.561)	-4.105* (2.279)	-2.018 (1.617)	-3.407** (1.731)	-2.987* (1.700)
Electric Spending (\$10k's)	4.676* (2.634)	4.216 (2.763)	3.601 (2.663)	2.947 (2.233)	2.568 (1.830)	0.989 (1.860)	2.022 (2.026)	2.495 (1.972)	3.569** (1.657)	2.042 (2.022)	-1.418 (2.301)
Healthcare Spending (\$10k's)	-1.792 (2.470)	1.994 (2.567)	0.800 (2.415)	1.571 (1.547)	4.067 (3.239)	11.004*** (2.673)	1.247 (2.055)	0.719 (2.117)	-0.070 (1.925)	-0.177 (1.474)	0.788 (1.700)
Transportation Spending (\$10k's)	0.516 (0.914)	1.330 (0.899)	1.276 (1.003)	1.058 (1.083)	1.025 (0.912)	1.178 (1.002)	0.998 (0.849)	0.402 (0.829)	0.078 (0.940)	-0.063 (0.982)	0.329 (1.059)
Water/Sanitation Spending (\$10k's)	0.825* (0.382)	0.724* (0.436)	0.755 (0.502)	1.004* (0.535)	1.307*** (0.462)	1.255*** (0.392)	1.120*** (0.388)	1.072*** (0.401)	1.084*** (0.394)	1.388*** (0.457)	1.290*** (0.467)
Militia Funding (\$10k's)	-6.223*** (1.084)	-5.812*** (1.046)	-5.452*** (0.969)	-4.951*** (0.909)	-4.534*** (0.882)	-4.413*** (0.952)	-4.529*** (1.072)	-4.741*** (1.119)	-4.630*** (1.301)	-5.724*** (1.288)	-4.610*** (1.683)
Maneuver Battalions	-1.211 (3.904)	-7.444* (4.189)	-10.485*** (3.830)	-14.008*** (3.899)	-16.394*** (4.455)	-19.988*** (4.966)	-19.246*** (5.105)	-21.449*** (4.455)	-25.067*** (4.532)	-23.253*** (4.631)	-24.902*** (5.026)
Observations	1,026	1,008	990	972	954	936	918	900	882	864	846
R ²	0.254	0.280	0.296	0.323	0.339	0.376	0.316	0.322	0.319	0.322	0.297
Adjusted R ²	0.191	0.219	0.236	0.264	0.282	0.321	0.256	0.262	0.259	0.261	0.233

Note: The column heading indicates the length of the lag in each model. Robust standard errors in parentheses.

Significance Levels: * p<0.1; ** p<0.05; *** p<0.01

Table 3 Deaths as a Function of Coalition Efforts Over Time

Deaths as a Function of Coalition Efforts in Iraq Over Time, February 2004-October 2008

	Dependent Variable: Civilian Deaths from Unknown Actors and Anticoalition Forces									
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Education Spending (\$10k's)	-2.275 (1.639)	-1.695 (1.826)	1.106 (2.178)	1.684 (2.880)	3.468 (2.597)	3.812 (3.388)	6.385* (3.506)	8.073* (4.762)	9.905** (4.311)	10.384*** (1.653)
Electric Spending (\$10k's)	-2.146 (2.729)	-4.647 (3.310)	-6.077 (3.774)	-7.909** (3.283)	-8.578** (3.593)	-9.239*** (3.264)	-9.116*** (3.341)	-9.421*** (3.290)	-9.590** (3.747)	-10.096*** (2.141)
Healthcare Spending (\$10k's)	1.837 (2.735)	3.031 (2.364)	0.413 (3.785)	3.243 (4.919)	2.977 (7.192)	5.349 (5.452)	1.698 (4.698)	0.988 (4.642)	2.568 (5.581)	3.259 (2.081)
Transportation Spending (\$10k's)	-0.219 (1.022)	0.266 (1.154)	0.449 (1.035)	-0.159 (1.118)	0.007 (1.155)	-0.621 (1.236)	-0.801 (1.171)	-0.994 (1.256)	-1.669 (1.226)	-1.482 (0.996)
Water/Sanitation Spending (\$10k's)	1.502** (0.599)	1.217* (0.652)	1.113 (0.711)	1.108 (0.751)	1.041 (0.773)	0.948 (0.750)	1.109 (0.710)	0.979 (0.646)	1.069* (0.590)	0.628** (0.252)
Militia Funding (\$10k's)	-6.112** (2.569)	-7.398* (4.089)	-14.646** (6.501)	-20.781** (9.358)	-21.636 (13.482)	-26.052* (14.606)	-21.140* (11.251)	-27.445** (10.824)	-27.760** (10.880)	-21.324** (8.410)
Maneuver Battalions	-24.570*** (5.678)	-24.641*** (6.275)	-21.955*** (5.788)	-22.879*** (6.275)	-20.798*** (7.351)	-16.432* (9.226)	-11.665 (9.974)	-3.766 (7.813)	6.618 (7.246)	15.561*** (4.461)
Observations	828	810	792	774	756	738	720	702	684	666
R ²	0.282	0.237	0.193	0.181	0.140	0.107	0.093	0.092	0.123	0.130
Adjusted R ²	0.216	0.167	0.119	0.104	0.059	0.023	0.006	0.004	0.037	0.044

Note: The column heading indicates the length of the lag in each model. Robust standard errors in parentheses. Significance Levels: * p<0.1; ** p<0.05; *** p<0.01

Table 3 (Continued)

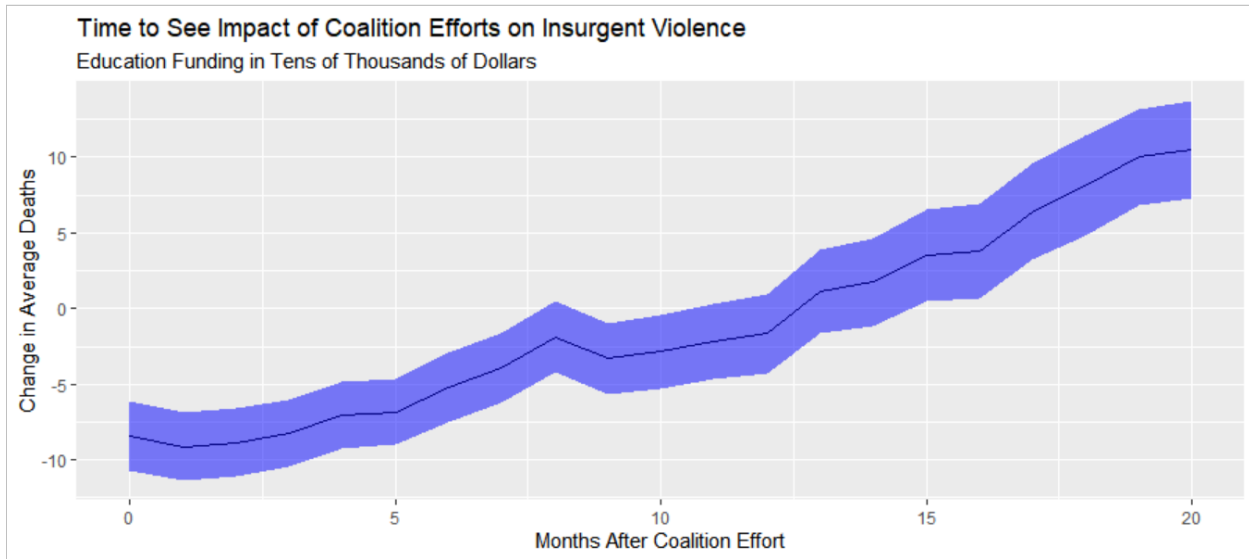


Figure 6, Education Funding (95% Confidence Interval)

I should also note the association observed between electric power projects and violence. Electric power spending, out of the three infrastructure categories (electric, transportation, and water/sanitation) compared, is the only category to show statistical significance, and it shows a negative impact, reducing deaths from insurgent violence by approximately 5-15 per province, per month. Further, this effect is only observable at around one year after the spending takes place.

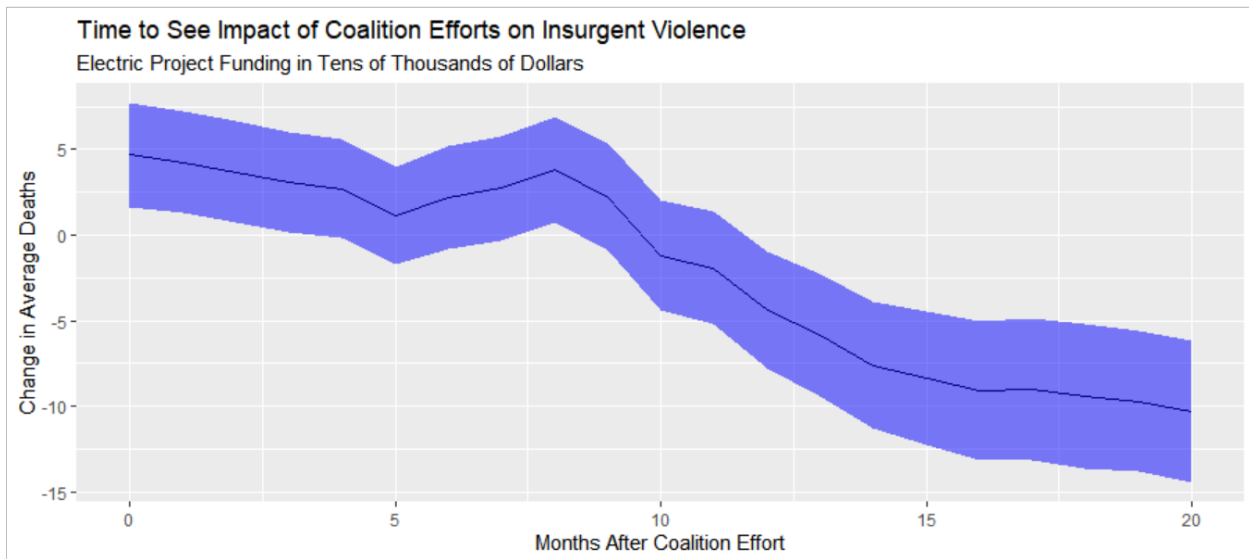


Figure 7, Electric Project Funding (95% Confidence Interval)

The next significant category to consider is spending in support of the local security apparatus, displayed in Figure 8. The first ten months from spending occurring is relatively steady: A reduction of around 5 deaths per province per ten thousand dollars spent. Once the first year has past, there is a large variation in expected outcomes. At a 95% confidence level, the minimum reduction in violence from this spending category 1.5 years after spending we see is 10 fewer deaths, twice as significant as during the first ten months following an outlay. However, the upper limit on violence reduction is much higher: 45 deaths. This spending category is a much more concentrated and higher stakes kind of effort than perhaps constructing a 3-room schoolhouse, or an upgrade to power supply. Looking at the data, the median project outlay in this category is \$110,000. This is in comparison to a category like education, which has a median project size of \$30,000.

Militia funding can go very well or very poorly. If it goes well it will not only directly counter the efforts of the insurgency but it will also compete in the labor market for military-age males against the insurgency. At worst, it trains individuals to fight who then defect, along with their US-issued materiel, to the insurgency. This wide spread of outcomes is not generally apparent in another line of effort.

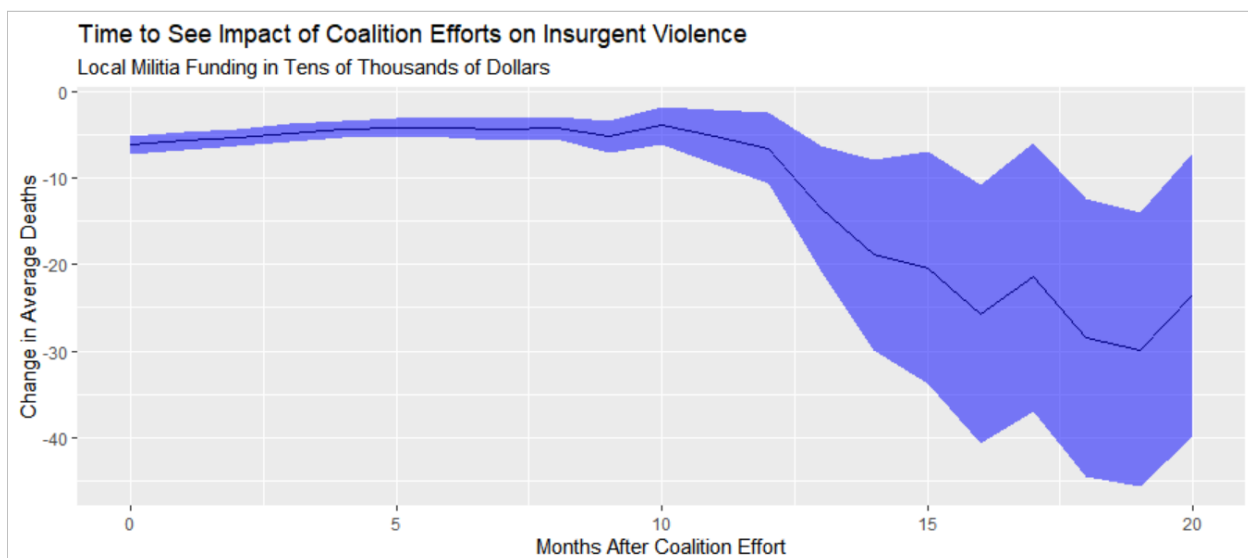


Figure 8, Militia Funding (95% Confidence Interval)

Finally, we need to compare these spending categories to the control: Coalition troops on the ground (Figure 9). A significant observation from this analysis is that the impact of a battalion of Coalition forces' presence is most significant in the 8-12 months after the month of treatment. This delayed impact would be consistent with a steady building of law and order in the province they are operating in. Contemporaneously, there is no significant impact on the expected level of violence from insurgents for a given level of troop presence. But as time progresses, there is a drop of 21-33 deaths per province per month. Oddly, after this period there seems to be a reversal, with the impact dropping off after month 15 and even an expected increase in violent deaths from 18 months after a battalion's observed presence onwards.

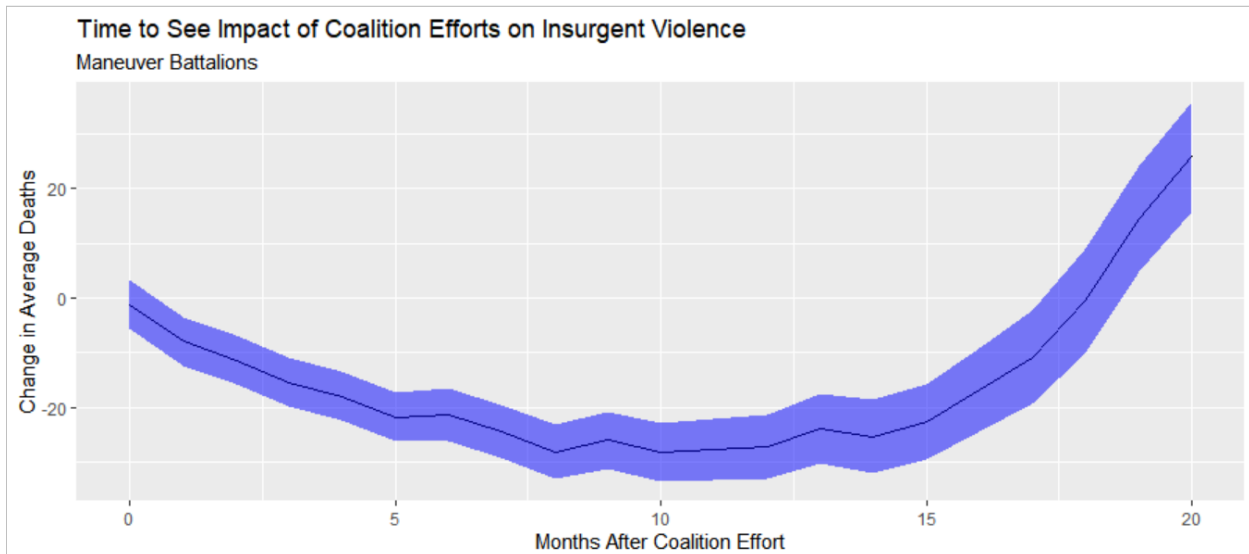


Figure 9, Maneuver Battalions (95% Confidence Interval)

This could likely be related to how long the battalion is expected to remain. Running a similar fixed effects model (unreported here), swapping the dependent variable with the level of maneuver battalions as the dependent variable and the same explanatory variables as before (thus using current coalition activity to predict future troop levels), it becomes evident that the number of battalions in a province is expected to decline from month 16 onwards. This would indicate that the reduction in

violence from troop presence takes time to build, and is dependent on the continued presence of a security force in the area. If security forces leave, then violence is the expected result.

Chronological Comparison

Briefly, I will highlight a few changes in these results when running the same regression as in the prior section on a split dataset. By splitting the data into A) post January 2007, and B) January 2007 and before, this enables comparison between the effects of coalition efforts when employed under different strategic methodologies. Looking at Figure 10 and Figure 11, we see the impact on deaths from insurgent violence after January 2007 from the level of coalition maneuver battalions and funding towards militia groups, respectively. The analysis is restricted to a 10-month lag due to data limitations.

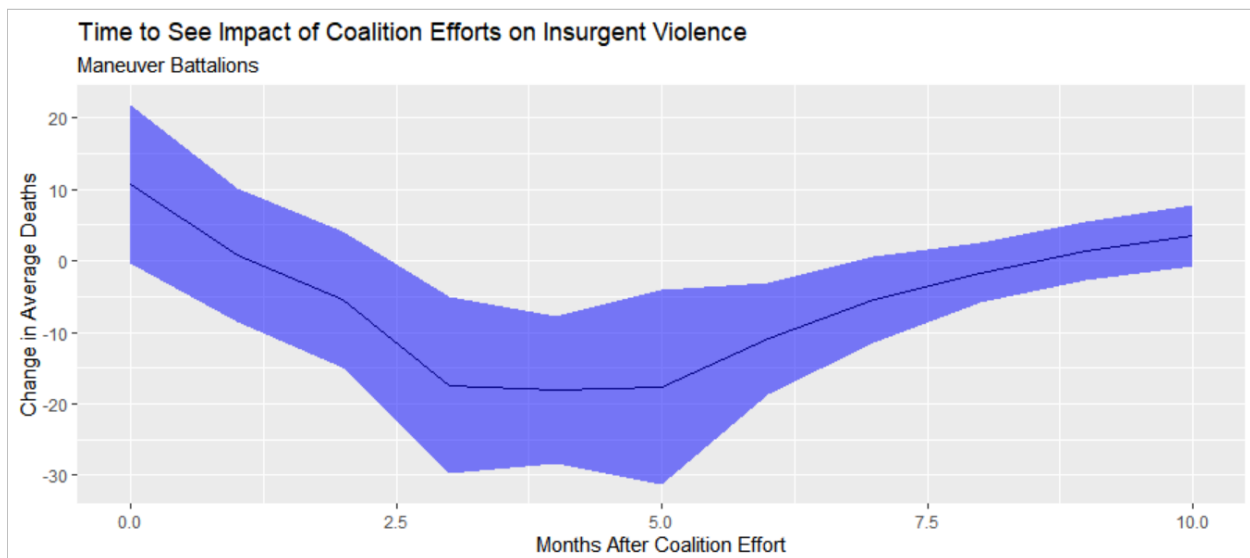


Figure 10, Maneuver Battalions Post-January 2007 (95% Confidence Interval)

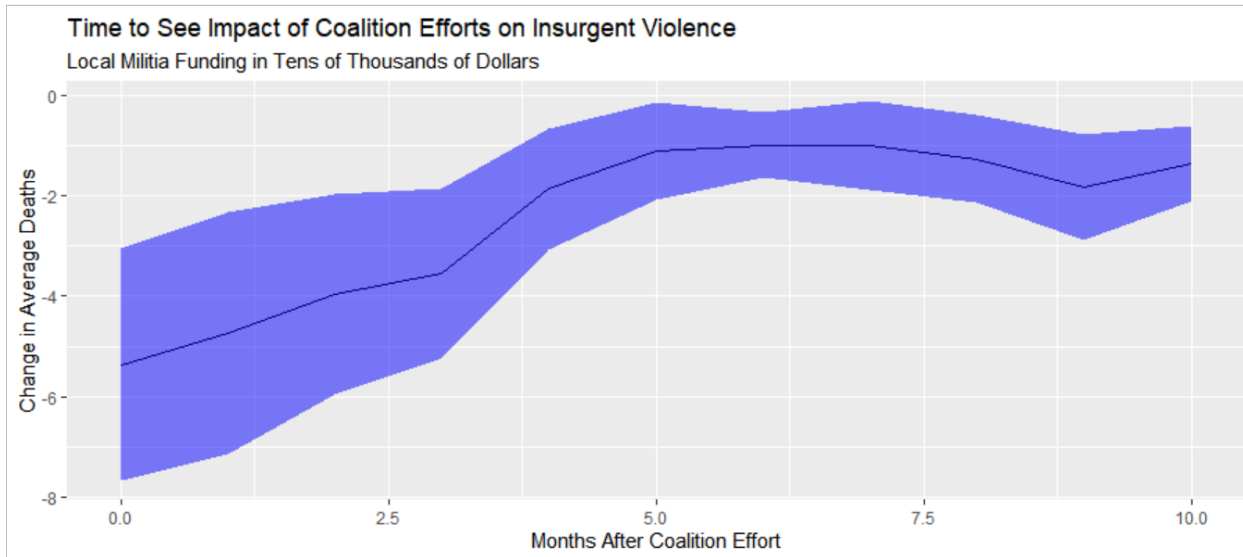


Figure 11, Local Militia Funding Post-January 2007 (95% Confidence Interval)

The signs and magnitudes of these estimates are largely similar for both coalition efforts to the original lagged model. The impact from maneuver battalion presence in the first few months is the only significant change in sign, although this is still a null result. Next, we compare these estimates to the same regression over the period February 2004-January 2007, reported in Figure 12 and Figure 13.

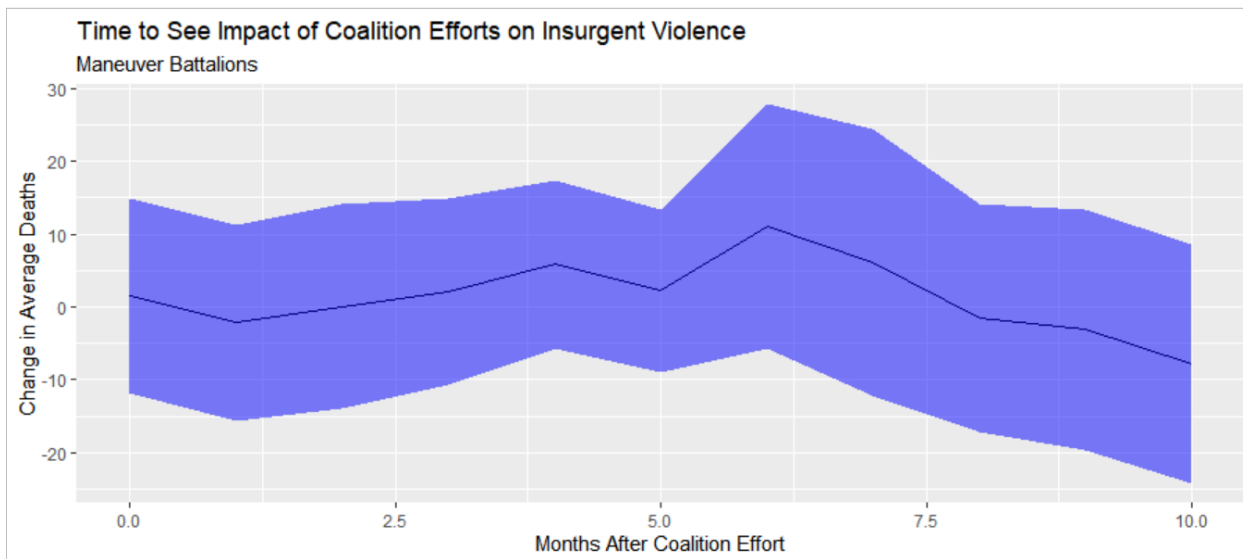


Figure 12, Maneuver Battalions February 2004-January 2007 (95% Confidence Interval)

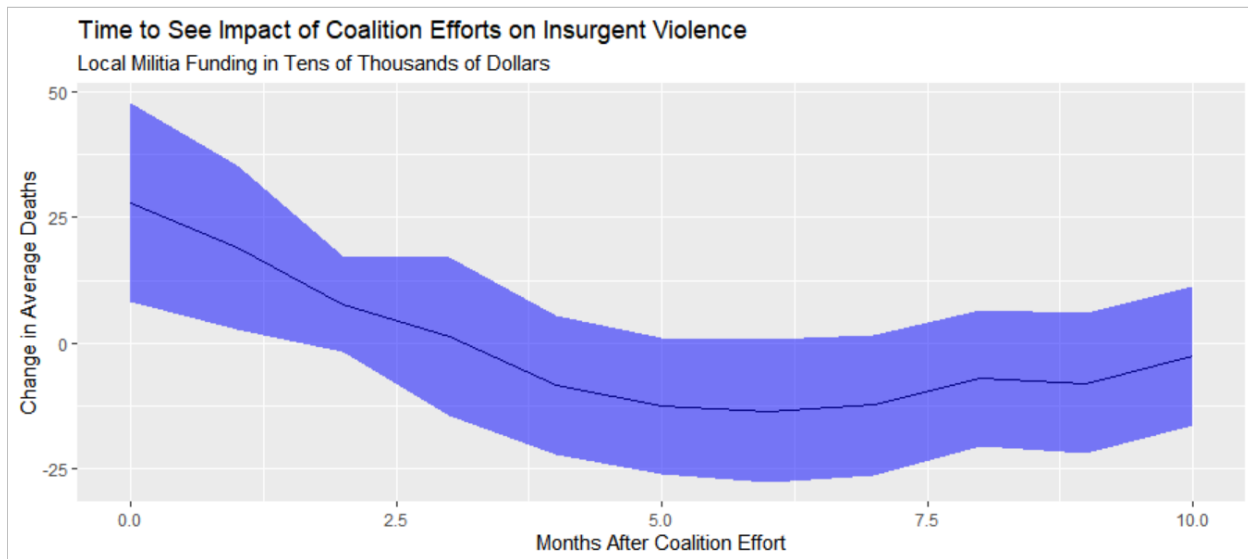


Figure 13, Local Militia Funding, February 2004-January 2007 (95% Confidence Interval)

Here, we can see a substantial change. Both coalition efforts appear to give a null or near-null result over the full period analyzed. Neither effort can be seen to contribute to reduced violence over this time period.

Simultaneous Regression Model

Results for the simultaneous regression model are in Table 4. As expected, many parameter estimates have a drop in statistical significance. Education spending has a consistently negative impact on violent deaths through the first four preceding months of spending. \$10,000 in education spending in this model is associated with a reduction of about 6 deaths per province, per month, for the first four months after the outlay. Figure 6 seemed to suggest that at around month 13 on, education spending would increase violent outcomes. Once other coalition efforts are controlled for, that association seems to go away. Perhaps most surprisingly, the effect we can observe from either Coalition force presence or

local militia funding is a null result in this specification. In the previous model, it seemed to be the largest observable contributor to a reduction in violence. Why would this be?

Looking back to the contemporaneous fixed effects model, we see a null result for maneuver battalions as well. Only when we look several months ahead and ignore changes in efforts between the time of the presence being evaluated and the level of violence is a significant result apparent. This could mean that there are significant variables in the data generating process being estimated, that are well proxied by the other spending variables, to remove a spurious association between troop presence and violence. It may also be that only a *sustained* presence is predictive of reductions in violence – if you hold other months of Coalition forces presence constant, you are directly omitting the route through which their presence acts to reduce violence. It could also be because of significant multicollinearity; much of the variation in maneuver battalion levels are correlated with changes in the other efforts, removing our ability to reliably estimate their direct impact.

Impact of Coalition Forces Efforts in Iraq, February 2004-October 2008

Parameter Estimates by Number of Months Before Observation on Deaths from Insurgent Violence											
	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Education Spending (\$10k's)	-6.601*	-5.194*	-6.121**	-4.652**	-7.242***	-0.242	-1.972	-3.067	-5.233*	-2.499	0.745
	(2.858)	(2.114)	(1.877)	(1.735)	(2.051)	(2.295)	(1.807)	(1.579)	(2.19)	(1.961)	(2.226)
Electric Spending (\$10k's)	-0.546	0.452	0.462	-0.568	0.296	-1.157	1.359	-0.123	0.939	-0.148	-0.805
	(1.712)	(1.104)	(1.297)	(1.386)	(1.525)	(1.245)	(1.519)	(1.417)	(1.262)	(0.965)	(1.211)
Healthcare Spending (\$10k's)	-6.486**	2.364	0.245	6.279*	5.06	5.31*	3.26	-1.408	-3.775	-2.775	-2.933
	(2.489)	(2.492)	(2.282)	(2.788)	(3.179)	(2.356)	(2.402)	(1.66)	(2.099)	(2.16)	(1.721)
Transportation Spending (\$10k's)	0.49	0.728	-0.601	-0.195	2.195*	1.169	0.843	1.068	0.469	0.017	1.227
	(0.834)	(0.801)	(0.858)	(0.946)	(1.061)	(0.842)	(0.843)	(0.722)	(0.763)	(1.047)	(0.802)
Water/Sanitation Spending (\$10k's)	0.531	0.665	-0.05	1.095*	1.253***	0.646*	-0.507*	-1.279***	-1.116***	0.273	-0.508*
	(0.35)	(0.343)	(0.484)	(0.456)	(0.331)	(0.295)	(0.241)	(0.231)	(0.211)	(0.275)	(0.227)
Militia Funding (\$10k's)	-3.023***	-2.257**	-0.776	0.214	0.385	1.707*	1.119	0.667	-6.991**	1.346	-2.247
	(0.82)	(0.833)	(0.909)	(0.781)	(0.868)	(0.832)	(1.467)	(1.721)	(2.412)	(4.095)	(4.212)
Maneuver Battalions	3.742	-2.475	-1.268	-1.752	-3.075	-3.463	-2.167	2.724	-3.846	6.243	-4.853
	(4.849)	(5.954)	(5.349)	(5.411)	(5.547)	(5.847)	(7.17)	(7.628)	(7.061)	(6.602)	(6.695)
Observations	666	F Statistic (df = 147; 465)		22.502***							
R ²	0.877	Adjusted R ²		0.824							

Note: The column heading indicates the length of the lag for each parameter estimate. Robust standard errors in parentheses. Significance Levels: * p<0.1; ** p<0.05; *** p<0.01; **** p<0.001;

Table 4 Simultaneous Regression Model

Impact of Coalition Forces Efforts in Iraq, February 2004-October 2008

Parameter Estimates by Number of Months Before Observation on Deaths from Insurgent Violence																				
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)										
Education Spending (\$10k's)	1.707 (1.634)	-3.243 (2.351)	-3.864 (2.597)	-1.188 (1.92)	-0.281 (1.579)	-2.057 (1.824)	2.056 (1.329)	0.417 (1.425)	1.456 (1.577)	2.594 (1.485)										
Electric Spending (\$10k's)	-0.474 (1.078)	-0.789 (1.114)	-0.881 (1.153)	-0.455 (1.628)	1.249 (1.437)	0.33 (1.208)	0.047 (1.874)	-0.91 (1.835)	-0.479 (1.83)	-1.732 (1.319)										
Healthcare Spending (\$10k's)	-2.055 (1.298)	1.399 (1.273)	-0.337 (1.406)	1.493 (1.334)	2.349 (1.739)	5.89* (2.489)	-1.908 (1.626)	-2.89 (1.537)	1.585 (1.82)	-1.531 (2.326)										
Transportation Spending (\$10k's)	-0.203 (0.697)	0.727 (0.513)	0.248 (0.65)	-0.471 (0.671)	-0.391 (0.611)	0.11 (0.617)	1.031 (0.757)	1.244* (0.598)	0.752 (0.475)	0.157 (0.428)										
Water/Sanitation Spending (\$10k's)	0.066 (0.236)	-0.203 (0.336)	0.072 (0.423)	0.597 (0.464)	0.697** (0.251)	0.393 (0.23)	0.548* (0.247)	0.223 (0.224)	0.339 (0.178)	0.255 (0.17)										
Militia Funding (\$10k's)	-1.137 (5.311)	0.644 (5.138)	11.539* (5.166)	8.697 (4.981)	3.783 (4.837)	7.902 (7.529)	18.626** (6.852)	-7.043 (5.304)	19.419** (6.718)	5.569 (6.767)										
Maneuver Battalions	3.175 (6.27)	1.358 (5.357)	-9.656 (5.46)	-5.559 (5.441)	3.141 (4.906)	2.103 (5.638)	7.003 (4.82)	-0.022 (4.29)	-1.898 (4.883)	9.445* (3.956)										
Observations	666		F Statistic (df = 147; 465)		22.502***															
R ²	0.877		Adjusted R ²		0.824															

Note: The column heading indicates the length of the lag for each parameter estimate. Robust standard errors in parentheses. Significance Levels: *p<0.1; **p<0.05; ***p<0.01; ****p<0.001;

Table 4 Continued

CHAPTER 7

CONCLUSIONS

Discussion

The results presented here point towards the importance of the security domain. In the short term, education efforts showed an immediate reduction in violence, with limited continued efficacy. Over the medium term, operations by the counterinsurgent presence seemed to be the most effective means to reduce violence. After a year or more, the patience of the coalition grows thin, and they were expected to reduce their presence in the area. At this point, the local security force must be prepared to take the baton and continue providing security to the public. They should be helped by the benefit of the effect of the infrastructure and goodwill built leading up to this point.

The results vary significantly in the pre- and post- strategy change periods. After January 2007, the troop presence and militia funding seems to provide a clearer impact on reducing violence than they did before. In line with the theory presented in the choice framework of chapter 5, this supports the efficacy of the hearts and minds strategy. Considering a basic economic model's perspective on the efficacy of troop presence in a counterinsurgency campaign, one might expect that the first few battalions introduced to a conflict would have only a small marginal effect in reducing violence, as they are unable to specialize and coordinate their efforts in a large, populous, and hostile region. After hitting a first inflection point, additional troop levels would bring down violence significantly, as they develop an increasing ability to effectively counter an insurgent campaign and each battalion can support the efforts of the other, an economy of scale. Once hitting a second inflection point, marginal returns to security presence begin to decrease as all the work to be taken on by a military is already done by other forces in the region. If Iraq still had not hit that first inflection point before 2007, we would not expect a few additional battalions to demonstrate a significant marginal impact. Indeed, Iraq was by most

measures below the recommended troop presence levels proposed by both McGrath and Quinlivan.¹¹⁹ This would provide a plausible interpretation to the increase in marginal impact before and after January 2007: the maneuver battalions were simply able to work with an economy of scale, and this did not have anything to do with a change in tactics associated with a hearts and minds campaign. Of course, both McGrath and Quinlivan only seriously propose rules of thumb, these measures are not sufficient to critically evaluate the appropriate force level required in Iraq.

Looking directly at the impacts of “goodwill” spending, we can observe a limited negative impact on deaths from insurgents. This provides additional evidence for the hearts and minds hypothesis. If the barbarian understanding was correct, as presented in chapters 3 and 5, we would observe either null results or an increase in insurgent activity from goodwill spending as insurgents leached away funding for their own purposes. Although it’s hard to assume that every coalition effort towards education is accounted for in this data, consider the parameter estimates from the simultaneous regression model, of a drop in deaths of about 6 per \$10,000 of spending. If we account for corruption, and assume the effect of corruption is to simply take money out of the picture (as opposed to contributing to or inhibiting the effect of the effort), then we would expect deaths to decrease further from the pure effect of the effort itself. Estimates for corruption are extremely difficult to pin down, but one estimate for the loss of economic activity in Iraq as a whole due to corruption is about 18%, while the US SIGIR was able to put a lower bound on estimates of spending lost to corruption of 13%.¹²⁰ Removing the effect of corruption under these assumptions would amplify the parameter estimate from a decrease of 6 deaths, to a decrease of 6.9-7.3 deaths per \$10,000 of spending in this category.

This effect may not be entirely attributable to a “goodwill” pathway per se. As noted earlier, the predominant prior occupation listed for foreign recruits to AQI from the Sinjar raid was “student.” If this

¹¹⁹ Quinlivan, “Burden of Victory”; McGrath, *Boots on the Ground*.

¹²⁰ Smith, “The Failed Reconstruction of Iraq.”

is a reasonably consistent characterization of the demographic profile of domestic recruits to AQI, and/or recruits to other insurgent organizations, then much of the impact could be attributable to simply providing a better option to potential insurgent recruits, which is easily believable in a nation where unemployment levels reached approximately 50% over the period in question.¹²¹ This pathway seems plausible, as research by others has shown a significant and contemporaneous crime-reducing effect from education on adolescents.¹²² While the evidence on the relationship between educational attainment and either hate crime¹²³ or terrorism is mixed,¹²⁴ this does not detract from the potential for a *contemporaneous* relationship because education and violence.

The wide variance in outcomes for supporting indigenous forces is in line with most literature on the subject.¹²⁵ A short period of training, insufficient support to the forces themselves, poor recruit selection, insufficient accountability, or lack of experienced leadership in the local security force can all hamper their success.¹²⁶ However the security forces are stood up, a key component of a US understanding of “success” necessarily involves this hand-off; a self-sufficient Iraq that does not require US occupation. The initial phase of the occupation of Iraq involved jettisoning most of the Iraqi military, creating a large group of people who were at once disenfranchised and capable, a recipe for disaster. Rather than sabotaging the institution on the ground, coercing it into compliance amidst the occupation would likely have resulted in a much reduced insurgency over the period of observation.

After the US military withdrawal in 2011, the peace was temporary. Many of the same insurgents joined the group formerly known as Al Qaeda in Iraq to create the insurgent group known as

¹²¹ O’Hanlon and Campbell, “Brookings Iraq Index,” 42.

¹²² Lochner, “Education and Crime,” 114–15.

¹²³ Krueger and Malečková, “Education, Poverty and Terrorism,” 123–24.

¹²⁴ Krueger and Malečková, 141; Brockhoff, Krieger, and Meierrieks, “Great Expectations and Hard Times,” 1187; Korotayev, Vaskin, and Tsirel, “Economic Growth, Education, and Terrorism,” 584.

¹²⁵ Paul, Clarke, and Grill, *Victory Has a Thousand Fathers*, 61–65.

¹²⁶ Aslan Souleimanov and Aliyev, “Evaluating the Efficacy of Indigenous Forces in Counterinsurgency,” 392–93.

ISIL.¹²⁷ Much of the reporting around their capture of most of Iraq shows an Iraqi military poorly supplied, poorly trained, and without leadership.¹²⁸ This lack of follow-through and failure to combat corruption in the ranks of the military likely impaired Iraq's chances for a stable future in the near term.

Any attempt at combatting insurgencies is not guaranteed. Referring back to Lyall's review of Russian counterinsurgency in Chechnya, it is worth a second look. His results showed an arbitrary shelling of a village reduced the average level of insurgent attacks by one-half attack, or about a 25% reduction in violence from an average of two attacks per three month period. This seems persuasive, if caveated by potential insurgency shifts noted by Souleimanov.¹²⁹

Certainly, we could also refer to Russia's successful defeat of the Chechens under Imam Sheik Mansur in 1784,¹³⁰ the Russian Tsar's clear-cutting of forested mountains in the middle of the 19th century to drive out Chechen resistance in the Murid war,¹³¹ the Soviet forced migration campaign in the wake of the Chechen Insurgency through WWII,¹³² or the numerous other "successful" campaigns of indiscriminate violence the Russians have deployed against the Chechens. Yet, the insurgencies keep happening.

Results in Context

This is a similar analysis to that performed by Berman et al. in "Can Hearts and Minds Be Bought? The Economics of Counterinsurgency in Iraq." Those authors looked specifically at CERP (Commander's Emergency Response Program) spending, and only found a significant impact of the program once the overall change in strategy had been implemented in 2007.¹³³ Although measured differently, their analysis showed a reduction in violent incidents in a province of about 0.159 incidents

¹²⁷ Suadad Al-Salhy and Arango, "Sunni Militants Drive Iraqi Army Out of Mosul."

¹²⁸ Pugliese, "Iraqi Soldiers Fleeing ISIL Forces Complain about a Lack of Training and Food."

¹²⁹ Souleimanov and Siroky, "Random or Retributive?"

¹³⁰ "Explore Chechnya's Turbulent Past ~ 1700s."

¹³¹ Arreguín-Toft, "How the Weak Win Wars," 109.

¹³² Burds, "The Soviet War against 'Fifth Columnists'."

¹³³ Berman, Shapiro, and Felter, "Can Hearts and Minds Be Bought?," 800-801.

from \$10,000 spent in the 6 months following the spending, about an order of magnitude lower parameter estimate from some of my results.¹³⁴

Importance of Security

Dropping a pallet of funding with an earmark towards education and a security apparatus is unlikely to be effective. The coalition security presence is what facilitates the projects themselves. Had there been no forces to train Iraqi militias, the funding would have nowhere to go. Had there been no forces to secure the sites during construction, then the infrastructure construction would not have even begun. Results unreported in this paper suggest that coalition efforts toward goodwill were more effective when carried out in a province with a higher troop-to-population ratio. Specifically, spending towards education and electric infrastructure projects are associated with an increased reduction in violence when those projects happen in provinces with above-average coalition presences. This synergy between a security presence and efforts towards goodwill appears to increase the effectiveness of the counterinsurgency campaign.¹³⁵

Any hearts and minds strategy is still dependent on maneuver elements, at one level to enable the hearts and minds lines of effort, and at another to degrade and destroy the insurgents themselves. It is unlikely that the indoctrinated insurgents will defect. What is more probable is that those individuals who are in the “neutral or passive middle”¹³⁶ can be persuaded to disrupt support for the insurgents, and to provide support to the counterinsurgency. Once this middle has rejected the insurgents, the “fish” have been coughed out of the sea, and can be engaged directly by the counterinsurgency campaign.

¹³⁴ The UN estimated Iraq’s population in April 2007 at 27,475,300. This gives an average governorate population of 1,526,406 people, which would be 152.64 tens of thousands of dollars of spending per province (with a \$1 per person budget). Berman et al’s estimate of 1.59 fewer incidents per 100,000 people would be a drop of $(-1.59 * 1,526,406 / 100,000) = -24.27$ incidents at this spending level, or $(-24.27) / 152.64$ violent incidents per \$10,000 in spending, a drop of 0.159 in the manner my estimates are normalized. This is a change over a 6 month period.

¹³⁵ This is a different kind of synergy than that debated in Hagan et al., “Correspondence.”

¹³⁶ FM 3-24, 1–20.

Other Considerations in Iraqi Counterinsurgency

This study was only able to attempt to quantify the impacts from a few lines of effort. It is worth briefly reviewing other efforts concordant with the hearts and minds strategy that coalition forces employed, which coincided with the change in strategy in Iraq in 2007, and the 101st DIV's presence in Northern Iraq in 2003.

Mosul – 2003

The ability to function and operate within a densely populated urban setting characterized the initial U.S. force presence in Mosul. The use of rifle companies “immersed” in their respective areas of operations day and night developed local situational awareness in the soldiers and built strong ties with the population. This enabled U.S. forces to acquire information resulting in useful intelligence against organized armed opposition groups. One of the most prominent examples of information gained from the population involved the operation that killed Uday and Qusay, Saddam Hussein’s sons, on July 22, 2003. Using information from an Iraqi source from within the city, coalition forces killed the second and third most valued targets in Iraq using direct fire weapons.¹³⁷

The quality of information gained from the population varied over time and with location. Some of the information was accurate and some was fabricated to further tribal or personal agendas. Some areas were very good about reporting insurgent and other criminal activity as they began to trust security forces. When security forces did not have control of an area, civilians stopped giving information because of fear of reprisal from insurgent forces and from prisoners who had been released from detention.¹³⁸

¹³⁷ Broemmel, Nielsen, and Clark, “An Analysis of Counterinsurgency in Iraq: Mosul, Ramadi, and Samarra from 2003-2005,” 19.

¹³⁸ Broemmel, Nielsen, and Clark, 29.

Mosul – 2004

The coalition's approach was tested in 2004, as the 101st Division left northern Iraq. Two unit transitions took place over 2004, which weakened the units' connection with the locals and understanding of the community, as well as the community's understanding of the unit. The reduction in manning this early on weakened coalition ability to support local security forces training, and their ability to patrol on foot. When faced with a challenge of an out-of-province insurgent group attacking the city in a reasonably coordinated fashion and with few coalition troops available to support them, many local police simply fled for their lives or supported the attackers, as would be expected.¹³⁹

Political Constraints

A significant constraint in counterinsurgency is political. How long the US public, and the Iraqi government, could "tolerate" a counterinsurgency presence was limited. Schaffer acknowledges the time constraint explicitly,¹⁴⁰ and it showed to be true in declining US support for the war, and in the difficulty in achieving a continued status of forces agreement with Iraq.¹⁴¹ The delay in recognizing that the coalition was fighting a counterinsurgency, and how best to approach it, significantly reduced its ability to execute a successful transition to a post-Saddam Iraq.

Mara Karlin, in an assessment for Brookings Institute, characterizes these constraints on US "nation-building" efforts in recent history. First, the host nation government we are acting to support may not receive it in the time, quantity, or quality they expect; the US has its own interests separate from the government dealing with the insurgency. Secondly, Washington often does not reach consensus on the objectives of support – should our presence be there to punish a malicious actor, or prevent malicious actors from arising in the future? Finally, she points to the influence of external actors. While we were trying to build up the security of an inclusive Iraqi state, Iran was trying to ply it

¹³⁹ Broemmell, Nielsen, and Clark, 44–45.

¹⁴⁰ Schaffer, "A Model of 21st Century Counterinsurgency Warfare."

¹⁴¹ "SOFA Timeline."

away, and put it firmly into its sphere of influence.¹⁴² Strategic incoherence does not aid any counterinsurgency campaign.

Further Research

This analysis of counterinsurgency in Iraq is of course incomplete. At some point in the future, statistics on the tips and cooperation from locals in Iraq will likely be released by the Department of Defense. Access to this data would offer tremendous insight into the change in the actual support of the population that the coalition had over time and space, a critical element underpinning the hearts and minds campaign. Should another researcher come across reasonably reliable data on the distribution of internally displaced persons in Iraq over the course of the war, this would lend considerable insight enabling an assessment of their interaction with the communities they left and that they joined over the period, which could provide the beginnings of a reasonable assessment on population relocation in the Iraqi context.

The funding variables used in this analysis are only loose proxies for the variables they intend to influence: funding for local militias is a proxy for the number of local security forces and how well trained and equipped they are, funding for education is a proxy for how many Iraqi children are in school and how many teachers Iraq has employed, funding for healthcare is a proxy for things like the number of doctors and nurses per Iraqi citizen or the healthcare services available per person. Better measures of these efforts would help to provide clearer pictures of the efficacy of the intended end states of each LOE in FM 3-24. It is hoped that at some point in the future, this work could become a piece of a broader analysis of the hearts and minds campaign on an international basis, providing policymakers a reasonable source of external validity in decisions around guerrilla-style conflicts.

¹⁴² Karlin, "Why Military Assistance Programs Disappoint."

Conclusion

In Iraq, the hearts and minds strategy appears to have been generally effective, if only employed to a limited extent. It was bolstered by additional security presence; bribing local government kleptocrats with no participation in the governing process will not win any war. FM 3-24 states, hearts and minds means “persuading people that their best interests are served by COIN success,”¹⁴³ and “convincing them that the force can protect them and that resisting it is pointless.” This study can only observe a portion of the total “hearts and minds” effort in Iraq. Spending is not the only, or even most significant, part of the strategy. The change in rules of engagement, positioning forces closer to the public, focus on intelligence, and messaging were all important elements tied into the coalition strategy. This risky maneuvering invites attacks on a more vulnerable coalition element, but enables a better rapport with the local population that was understood as being critical to success in Iraq, and indeed appears to have increased the efficacy of the marginal maneuver battalion.

The efforts towards legitimizing the Iraqi government, providing security to the Iraqi people, and removing the support the insurgents held from the public were key to turning the tide of violence in Iraq. Readers should note that the list of funding towards aspects of civil society in this paper are not one-size-fits-all, they are tailored to the Iraqi context. For example, funding for healthcare projects appears to have not had a significant impact on violence in Iraq, while electric power infrastructure did. In other counterinsurgency campaigns, the opposite may well hold true. The strategy is based on convincing the public that their interests are best served by counterinsurgency success. What this means depends on the specific population, their culture, needs, aspirations, complaints, and priorities.

¹⁴³ Where “COIN” is counterinsurgency.

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