Civilian Harm, Wartime Informing, and Counterinsurgent Operations^{*}

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Abstract

A rich body of theory in political economy suggests that civilian support is central to the success of counterinsurgent campaigns. Civilian collaboration can significantly improve military operations, enhance soldier efficiency, and avoid disruption of costly security infrastructure. Yet there have been few direct tests of the claim that harm to civilians, and who harms them, influences when and with whom non-combatants collaborate. We provide such a test, drawing on newly declassified military records and large-scale survey data. We demonstrate that civilians responded to harm suffered in insurgent-initiated attacks by providing intelligence to security forces in Afghanistan. Moreover, we show that these tips improved the success of subsequent counterinsurgent operations. These results clarify the conditions under which civilian casualties can shape the course of internal wars, with implications for future research on political violence.

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1 Introduction

A core claim in the civil war literature that emphasizes the significance of civilian agency is that the ways in which civilians respond to violence is determinant of a variety of important outcomes (Balcells and Stanton 2021), such as collective action in counterinsurgent mobilization (Kaplan 2016; Schubiger 2021), collaboration with government or insurgents (Kalyvas 2006), patterns of wartime social order (Arjona 2016), and political participation (Condra et al. 2018). In the context of counterinsurgency, there is welldeveloped theory suggesting that how armed actors treat civilians in wartime conditions civilians' sharing of information with the government (Berman, Shapiro, and Felter 2011). Furthermore, the ebb and flow of information provision should affect the effectiveness of counterinsurgency operations since counterinsurgency depends critically on the quantity and quality of such information (Berman, Felter, and Shapiro 2018).

Empirical studies provide evidence consistent with tenets of information-centric counterinsurgency theory, but suffer from one of several weaknesses. Some work provides only indirect evidence, such as showing that insurgent-initiated violence in Iraq at the district level is lower in the week following insurgent attacks that injure or kill non-combatants in that district, and higher in weeks after Iraqi or American forces did so (Condra and Shapiro 2012). This is consistent with civilians responding to harm from insurgents by withdrawing their support and sharing intelligence with security forces, but it is not direct evidence. Some studies show evidence of only one step in the theoretical chain. For example, evidence from the Iraq War shows that harm to civilians influences hotline tips, but there is no evaluation of the downstream impact on counterinsurgent activity (Shaver and Shapiro 2021).¹ Finally, studies of counterinsurgency campaigns suggest that civilians conditioned information sharing on the way they were treated, and that this information affected counterinsurgency operations (Ahern 2006; Myoe 2009; Tantalakis 2019). But we might worry that such posited relationships are spurious: for example, there might

^{1.} Similarly, Schutte (2017) studies how harm influences one battlefield outcome (IED turn in's), but lacks an evaluation of civilian information sharing and relies on leaked data covering a shorter time period than we do.

be factors that affect both the level of information sharing as well as counterinsurgency operational outcomes.

This paper addresses such weaknesses in prior work. We provide a direct quantitative assessment of how harm to civilians affects information sharing, and how shared information affects counterinsurgency effectiveness. We use declassified, incident-level data on insurgent attacks that caused civilian casualties, civilian intelligence sharing with the government, and counterinsurgency operations between 2006 and 2014 in Afghanistan. To our knowledge, this is the first paper to use such granular data on civilian information sharing. This is due in no small part to the lack of available data on actual information sharing in such conflicts. As Lyall, Shiraito, and Imai (2015, 833) observe: "Information about insurgent groups is a central resource in civil wars: counterinsurgents seek it, insurgents safeguard it, and civilians often trade it. Despite its essential role in civil war dynamics, the act of informing is still poorly understood, due mostly to the classified nature of informant 'tips.'" In our analysis, we attempt to isolate and leverage random variation in civilian abuse by controlling for factors in the conflict environment that might affect our outcomes of interest.

We find, first, that harm to civilians during insurgent-initiated events led to increased information flow to the government and its allies. The effect on informing of a one standard deviation increase in the number of insurgent-initiated civilian casualty incidents is small in standardized terms (a 0.03 standard deviation treatment effect), but statistically robust and represents a fourfold increase from the mean number of tips, amounting to approximately one more tip every two weeks. Second, we find that increased flow directly affected counterinsurgency effectiveness, as measured through meaningful operational outcomes such as government missions to clear roadside bombs, neutralize weapons factories, conduct safe house raids, and detain suspected insurgents. Once again the impacts were modest in standardized terms—ranging from a 0.02 standard deviation treatment effect of IED tips on roadside bombs found and cleared to a 0.06 standard deviation treatment effect of all tips on insurgents detained—but very large in terms of changes from the mean rate of such outcomes. We also estimate that every four IED-related tips predicts one additional roadside bomb found and cleared. These effects are consistent with information being an important resource for counterinsurgents in this context.

Our central contribution is to provide direct evidence for the full causal chain in informational theory of counterinsurgency. These theories have shaped the academic study and military doctrine of counterinsurgency for the last 70 years, from Algeria (Galula 1964) to Afghanistan (Department of the Army 2007). At their core, these theories posit that a government's political and military success in an irregular conflict crucially depends on the support of the population, a claim for which we provide strong and reliable evidence. The scope conditions of the theory and the historical record provide reason to believe that the dynamics we document here should be present in other irregular asymmetric conflicts, which some studies classify as accounting for more than half of civil wars since 1945 (Kalyvas and Balcells 2010; Balcells and Kalyvas 2014).

Even with the withdrawal of US forces from Afghanistan in 2021, we argue that careful and rigorous analysis of violence, information sharing, and counterinsurgency in that conflict remains relevant for the broader study of civil war. First, conflicts need not be contemporary in nature for their study to provide valuable insights for understanding dynamics of warfighting (e.g., Hall, Huff, and Kuriwaki (2019), Humphreys and Weinstein (2008), Kalyvas (2006), Kocher, Pepinsky, and Kalyvas (2011), and Krick, Petkun, and Revkin (2023)). Second, failing to use available evidence to provide a thorough and accurate understanding of information-centric counterinsurgency's dynamics would be a strategic error, even as the principal strategic challenge for the US and its allies is now framed as successfully navigating competition between major powers (Biden 2022). Unfortunately, this shift does not mean the end of insurgency as a global security and development challenge. Yemen, Ethiopia, the Democratic Republic of the Congo, the governments of Burkina Faso, Mali, and Niger, among others, face various insurgent threats. Data show no abatement in the number of ongoing civil wars around the world (Davies, Pettersson, and Öberg 2023), and as we note below, the information dynamics we study here are likely to extend to various other cases in which political actors seek to combat violence. As such, the lessons learned from the two-decade-long conflict in Afghanistan offer invaluable insights into the complexities and challenges of counterinsurgency operations in contemporary warfare. Understanding these lessons is crucial for informing future military strategies and operations, particularly in regions where insurgent threats persist.

2 Information Theory and Counterinsurgency

Information theory has been formalized in various ways. Berman, Shapiro, and Felter (2011) model a three-way interaction between citizens with political preferences over who controls the territory, insurgents seeking to impose costs on the government, and a government balancing its efforts between militarized counterinsurgency and public goods provision. Khanna and Zimmerman (2017) study a similar interaction but shift the order of play and have rebels fighting over territory vs. simply seeking to cause harm. Vanden Eynde (2018) focuses on the two-way interaction between rebels and civilians but focuses on how shocks to the normal economy shape the capacity of rebels to attack government forces and their incentives to deter information sharing through violence against civilians.

All these variants implicitly or explicitly make four claims:

- information sharing by civilians shapes battlefield outcomes;
- information sharing helps the receiving party (government or insurgent);
- civilians share operationally relevant information in equilibrium; and
- civilians respond to harm by decreasing/increasing information sharing.

From at least the early-1970s, military officers writing on counterinsurgency have emphasized the centrality of information, making the claim that paramount to overall success is securing control and support of the population (Galula 1964, 2006; Kilcullen 2010; Kitson 1971; Nagl 2009). British General Sir Frank Kitson famously argued of the campaign in Malaya that "[i]f it is accepted that the problem of defeating [an insurgent] consists largely of finding him, it is easy to recognize the paramount importance of good information" (Kitson 1971, 58). More recently, soon after assuming command of ISAF in Afghanistan in 2009, General Stanley McChrystal argued, "the greatest risk we can accept is to lose the support of the people here" and "this civilian casualty issue is much more important than I even realized. It is literally how we lose the war or in many ways how we win it."² This suggests that information theory should apply to irregular asymmetric conflicts broadly, though how tightly it binds in each case will vary depending on context-specific factors.

Indeed, in Afghanistan and a variety of other conflicts, there is evidence in support of the causal process posited by information theory. First, does at least one side in the conflict think that information sharing mattered? The Afghanistan war is replete with examples. In the early years of the war in Kunar Province, military and intelligence personnel were still operating in an intelligence-scarce environment, which officials saw as a problem (Morgan 2021, 27-28). A senior staffer to JSOC's commander at the time, Maj. Gen. Stanley McChrystal, said, "We didn't have a significant amount of intelligence at all. We were going to use Rangers to make our intelligence, to develop up" (43). Much later in the war, the military launched Operation Haymaker in northeastern Afghanistan, an aerial campaign whose goal was to eliminate al-Qaida targets. The campaign relied heavily on information sharing: "First, either a tip from a CIA or DIA source or a trick of the NSA's technological wizardry would locate the targeted militant somewhere in whatever city or desert or mountain range he operated from. In Haymaker, more so than Team 6's Yemen and Somalia missions, information from informants—human intelligence—played an increasingly key role as the CIA, DIA, and their Afghan NDS counterparts recruited more sources in places like the Waygal and the Watapur. 'The beauty of Haymaker for the task force was this body of HUMINT,' one special operations officer said of Haymaker's first year. 'I was surprised by it' " (426). We see similar evidence of such a belief in the importance of information in Zimbabwe (Moorcroft and McLaughlin 2008, 400),

^{2.} Gen. Stanley McChrystal, 60 Minutes interview, 27 September 2009.

the First Sudanese Civil War (1963-1972) (Kindersley and Rolandsen 2019), the Moro Insurgency in the Mindanao region of the Philippines (Chen 2015), and the Omani Civil War (Paul et al. 2013).

Second, do civilians provide operationally relevant information? In Afghanistan, anecdotal evidence suggests that they did. An Afghan interpreter for US battalions in and around Camp Blessing since 2007 "gave the generic example of a man who used to call up an interpreter at Blessing when he heard about IEDs being planted in a culvert near his house, but eventually stopped doing so, preferring to let the Americans take their chances with the bomb rather than risk the Taliban's finding out he was a collaborator" (Morgan 2021, 305). Operation Haymaker was arguably successful in eliminating lower-level targets in part because of operationally relevant information shared: "They wound up going after the targets they could find. You'd get intelligence on a particular cell, and they'd go and dismantle it that week' with drone strikes, said an intelligence analyst. 'It was a pretty efficient killing machine, but it grew to be more about quantity than quality'" (433). In Mali's ongoing conflict against terrorist groups, "one officer reported receiving numerous calls a day from locals wishing to provide information on enemy movements" (Shurkin, Pezard, and Zimmerman 2017, 72). In the Omani Civil War, "For the most part, however, the information gained by the Intelligence Corps personnel was overwhelmingly derived from human intelligence sources (HUMINT), most notably informers and, of crucial importance, surrendered enemy personnel (SEPs)" (Jones 2011, 566). There is evidence of civilian informing in cases like the Greek Civil War (Tantalakis 2019), the Darul Islam rebellion in Indonesia (Paul et al. 2013), Algeria (Galula 1964), and Cambodia (Kubota 2013).

Third, does civilian-provided information actually help the receiving party? A US Special Forces team operating out of FOB Asadabad in Kunar Province received a tip in May 2003 that a Taliban-affiliated bomb maker was hiding in a town nearby. Acting on that intelligence, the detachment raided the compound at night and killed the bomb maker. A Taliban media release a few days later in Pakistan praised the bomb maker as a

loyal operative (Morgan 2021, 29). Much more significantly, the termination of Farouq al-Qatari, a senior al-Qaida operative, in a Reaper strike in 2016 was possible only because of intelligence: "It was good intelligence that led us to the location, and then we used all means of collection and reconnaissance to fix the location,' said Doug London, who was in charge of collaboration with the military at the CIA Counterterrorism Center at the time" (474). In Colombia, the FARC suffered because of information passed on to the government side: "In the Middle Magdalena Valley, deserters like Berta were the corner-stone of the paramilitary strategy. Dozens of them helped the right-wing groups identify and, in some cases, kill rebel collaborators" (Dudley 2006, 57). We find evidence of similar dynamics in other cases, such as El Salvador (Todd 2010), Sri Lanka (Moore 1993), and Chad (Azama 2017).

Such evidence at least suggests that the informational theory applies across a broad set of cases and that relevant actors *think* it characterizes the conflict environment. To more precisely assess how civilian harm affects information flow to armed actors and how information affects counterinsurgent effectiveness, we turn to a micro-level and systematic analysis of these dynamics in Afghanistan.

3 Empirical Approach

This section reviews the military records used to track civilian harm and wartime informing and introduces our identification strategy.

3.1 Data

The declassified military records on insurgent activity, harm to civilians, and intelligence reports were compiled by both International Security Assistance Force (ISAF) and Afghan forces (ANDSF). These records of significant activities (SIGACTS) cover 2003 through 2014, documenting more than 270,000 separate events, including: insurgent attacks on government forces, harm to civilians, and civilians' provision of local intelligence to security forces (Shaver and Wright 2017). The data were collected systematically by security forces, not derived from media sources, which avoids concerns about reporting biases in data collected from newspapers and other media, both in Afghanistan and in other conflicts (Weidmann 2016; Shaver et al. 2022).³ These data are the most complete account of security operations in Afghanistan currently in the public domain (see Supporting Information (SI)). Descriptive statistics for the data are reported in Table 1. There was approximately one tip every 2 weeks in an averaged sized district (approximately 63,700 people).

Variable	Mean	Std. Dev.	Min.	Max.
All Tips	0.008	0.0284	0	2.6667
Tips about Threats to COIN Forces	0.0053	0.0201	0	1.2121
Tips about Threats to Civilians	0.0004	0.0029	0	0.5
Tips about Insurgent Activity	0.003	0.0138	0	1.831
IED Tips	0.0022	0.0097	0	0.5389
Roadside Bombs Found/Cleared	0.0037	0.0179	0	1
Weapon Caches Found/Cleared	0.0012	0.0086	0	0.6475
Insurgents Captured and Detained	0.0012	0.0062	0	0.5319
Tactical Safe House Raids	0.0001	0.0018	0	0.2878
Insurgent CIVCAS	0.0009	0.0051	0	0.5
Combat activity	0.0158	0.063	0	3.0135

Table 1: Summary statistics for violence data

Notes: Unit of observation is the district-week. Summary statistics are calculated for the sample studied in the main estimating equations (four digits shown). All variables are reported in per 1000 population terms.

The data include details on 97,006 intelligence collection events. These represent a combination of calls to anonymous hotlines, one-off tips from direct civilian-to-security force interactions and reporting by cultivated sources, but do not include intelligence derived from monitoring insurgent communications.⁴ The data also contain records on 120,247 direct fire, 28,974 indirect fire, and 38,205 IED explosion events. To measure civilian harm by insurgents, we isolate all insurgent-initiated attacks that caused either a civilian injury or death that was observed by or occurred in the presence of government forces. Following previous literature, we treat injuries and deaths as casualty events. Importantly, since these casualties occur in the context of violence between insurgents and

^{3.} Weidmann (2016, 210-211) describes the military records used in our study as the "universe" of insurgentinitiated combat activity.

^{4.} Author interview with senior official responsible for data collection and management, May 24, 2017.

government forces, they are collateral damage; they should not be considered discriminate violence targeted at civilians, which do not enter the data.

We analyze the effects of this collateral damage on informing because harm to civilians associated with insurgent action is central to the relevant theory. We supplement our main analysis with additional evidence from survey data, which demonstrate that estimating the model without data on coalition-initiated civilian casualties is highly unlikely to lead to erroneous conclusions about the reaction to casualties from insurgent-initiated events.

3.2 Estimation Strategy

3.2.1 How does insurgent harm of civilians affect information sharing?

To estimate the effect of civilian harm in insurgent-initiated events on information sharing with security forces, we sum all collected intelligence reports, all insurgent attacks with civilian casualties, and all insurgent operations—including direct line-of-sight attacks, indirect mortar and rocket engagements, and improvised explosive device (IED) detonations—by district-week and standardize per 1,000 district inhabitants. Our base model is captured by equation 1:

$$Y_{dt}^{a} = \beta_{1}CIVCAS_{dt-1} + \sum_{j=1}^{4} [\zeta_{j}(DF_{dt-j}) + \eta_{j}(IDF_{dt-j}) + \theta_{j}(IED_{dt-j})] + \mu_{d} + \lambda_{t} + \epsilon_{dt}$$
(1)

where Y_{dt}^{a} is the number of intelligence reports shared with counterinsurgents in district d in week t where the superscript a indicates the type of tip ((1) all tips, (2) threats to COIN forces, (3) threats to civilians, (4) tips about insurgent activity);⁵ CIVCAS_{dt} is the lagged sum of insurgent attacks resulting in civilian harm in a given district; $DF/IDF/IED_{dt-j}$ is the lagged sum of different insurgent attack types in previous week j (direct fire, indirect fire, and IED explosions); μ_d is a district fixed effect; λ_t denotes a week fixed effect; and ϵ_{dt} is the error term. In all models we cluster standard errors at the district level and regressions are weighted by district population in thousands.⁶

^{5.} See data description in SI for more details on tip types.

^{6.} We also report unweighted regressions for this estimating equation in Table SI-10.

Our modeling choices are designed to account for factors that cause an increase in insurgent activity in a particular area in a particular time period that also are related to the frequency of informing the government. We begin with the assumption that, conditional on appropriate controls for trends in the conflict, collateral damage to civilians caused by insurgent attacks on military forces is "as if" randomly assigned. This approach is the benchmark specification in previous work (Condra and Shapiro 2012; Shaver and Shapiro 2021). We conduct our analysis at the district level because this is the level at which ISAF, ANDSF, and Taliban forces were organized during the campaign. In this setting, conditioning out district and week fixed effects, as well as short-run trends in overall violence, leaves us with residual variation in civilian abuse that is arguably random.

Several other threats to inference are mitigated in the analysis. Importantly, there could be a cross-sectional correlation between insurgent-initiated attacks and informing induced by insurgents preferentially targeting pro-government areas.⁷ Including district fixed effects accounts for such enduring political differences.⁸

Next, one might worry that a move from either side's forces into an area for the fighting season would create both more opportunities for civilian harm and more activity to inform on. But it is unlikely that such medium-term trends would drive results in an estimation strategy like ours which relies on week-to-week variation in combat events combined with the randomness inherent in harm to civilians during such events. The week is a temporal unit smaller than that at which either side could re-position significant forces.⁹ Our main specifications also control for multiple lags of combat incidents, which would account for very short term flows of forces by either side.

Finally, one might worry that regression results from equation 1 could be biased because

^{7.} Hirose, Imai, and Lyall (2017) provide evidence for such a correlation by showing that favorable sentiment towards international forces in January-February 2011 was positively correlated with insurgent-initiated attacks in the remainder of the 2011 fighting season in a sample of 204 villages in the 13 Pashtun-majority provinces of Afghanistan.

^{8.} To enable assessment of the results' stability to time-varying trends in political conditions and force levels, the SI shows all main results with province \times year, province \times quarter, and district \times year fixed effects.

^{9.} Moving even a company sized unit (about 140 soldiers) for anything other than 48-72 hour operation required substantial construction and logistics support and was not done for such short periods, let alone larger battalion sized elements (500-1000 people) which were the size unit typically moved in and out of districts.

the models omit data on government-caused civilian casualties.¹⁰ Lack of such data could lead to biased estimates under two scenarios. First, we may worry that insurgent and government harm occur in offsetting-cycles, such that harm caused by insurgents is correlated with future (but not present) government harm. This would imply that insurgent and government harm are negatively correlated. If government harm is also negatively correlated with tipping (as the informational theory hypothesizes), then our estimates of the impact of insurgent harm would be biased upward (larger magnitude), since government harm remains an omitted variable. Second, civilians might react to relative harm—which actors hurt them more—as opposed to absolute harm. This would lead to a similar type of bias in our estimates.

To address this concern, we augment our main results with survey data which provide suggestive evidence that neither of these mechanisms drives the results. Specifically, we study the relationship between self-reported willingness to inform (the survey analogue of tipping) and perceived level of care that government or insurgent forces exercise to avoid harming civilians (the survey analogue of measured harm) in eight waves of the Afghanistan Nationwide Quarterly Assessment Research (ANQAR) survey from 2013 to 2015 (n = 99,666 respondents). The survey included questions about insurgent *and* government attempts to avoid civilian harm as well as the willingness of respondents to report roadside bombs.¹¹

Since we observe perceived harm by both actors, we can evaluate (a) whether we replicate the results from the observational data and (b) if our estimates of the relationship are sensitive to omitting the survey-based measures of government harm. We do so with equation 2:

^{10.} Despite authors' repeated efforts over several years to gain access to data detailing government-caused civilian casualties, we have been unsuccessful.

^{11.} See data description in SI for more details.

$$Y_{idw} = \beta_1 InsufficientGovEffort_{idw} + \beta_2 InsufficientInsEffort_{idw} + \gamma X_i + \mu_d + \eta_w + \epsilon_{idw}$$
(2)

where Y_{idw} is whether or not an individual *i* is 'very likely' to report IED placement to security forces in district *d* and survey wave *w*; InsufficientGovEffort_{*idw*} or InsufficientInsEffort_{*idw*} is perception that the government or insurgents do not do enough to prevent civilian casualties; μ_d is a district fixed effect; η_w is a survey wave fixed effect; X_{idw} is a vector of individual-level demographic controls that vary across specifications; and ϵ_{idw} is the error term. In all models we cluster standard errors at the district level, and regressions use district-specific survey weights.¹²

3.2.2 How do civilian tips affect battlefield outcomes?

Informational theory hypothesizes that civilian cooperation positively influences counterinsurgents' battlefield success. To quantitatively investigate whether variation in information flow is strategically valuable, we estimate the short term conditional correlation between tipping and various counterinsurgent operations, controlling for trends in combat violence and insurgent harm using equation 3:

$$Y_{dt}^{b} = \beta_{1}Tips_{dt-1} + \sum_{j=1}^{4} [\zeta_{j}(DF_{dt-j}) + \eta_{j}(IDF_{dt-j}) + \theta_{j}(IED_{dt-j}) + \rho_{j}(CIVCAS_{dt-j})] + \mu_{d} + \lambda_{t} + \epsilon_{dt}$$
(3)

where b denotes the type of counterinsurgent outcome in Y_{dt}^b , which can be the number of (1) roadside bombs found and cleared, (2) weapons caches found, (3) safe house raids, or (4) insurgents captured and detained in district d in week t. $Tips_{dt}$ is the sum of all tips or the sum of tips specifically related to IED deployment in a given district-week. As in equation 1, we control for previous levels of insurgent violence. Accounting for 12. We also report unweighted regressions for this estimating equation in Table SI-3. violence—including IED deployment—means that any change in the outcome variable associated with tips is not confounded by shifting intensity of combat activity. For example, one might be concerned that tips about IED deployment and IEDs neutralized may be mechanically correlated with the number of IEDs deployed. We can rule this out since our model partials out the variation in IEDs cleared that is correlated with shifts in IED deployment.¹³ We also control for previous levels of insurgent-caused civilian casualty events. All models are weighted by district population and include district and time fixed effects.¹⁴ We cluster standard errors at the district level.

4 Results

4.1 Main Results

4.1.1 Insurgent harm increases civilian tips to security forces

We find that civilian harm by insurgents is associated with a significant increase in information sharing with state security forces. These results are robust across different kinds of tips and substantial in magnitude. Table 2 shows the estimated impact of civilian harm on wartime informing using equation 1. The dependent variable in Column 1 is tips aggregated across all types. Columns 2-4 decompose tips by type: threats to counterinsurgents; threats to civilians; and insurgent activities.

Across specifications, there is a statistically significant association between (lagged) insurgent attacks that result in civilian casualties and the number of tips that counterinsurgents receive from civilians. A one standard deviation increase in attacks resulting in civilian casualties (0.322 more civilian casualty events per week in an average sized district) is associated with a 12% increase in informant reports over the weekly mean level (Column 1). This overall effect is largest for tips related to threats against counterinsurgents (2), but there are also statistically significant increases in tips on threats to

^{13.} One alternative to this specification would be to study the clear-rate: the percentage of IEDs deployed that are neutralized before they detonate. The central concern we have with this approach is econometric: the clear-rate is undefined for district-weeks which experience no IED activity. This would create an unbalanced panel, breaking the panel difference-in-differences (unit and time fixed effects) approach we take here.

^{14.} We also report unweighted regressions for this estimating equation in Table SI-11.

civilians (3) and insurgent activities (4).¹⁵

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.183^{***}	0.123^{***}	0.00920***	0.0372^{**}
	(0.0455)	(0.0285)	(0.00343)	(0.0172)
SUMMARY STATISTICS				
Outcome Mean	0.00804	0.00529	0.000374	0.00304
Outcome SD	0.0284	0.0201	0.00289	0.0138
Parameters				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Table 2: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models are weighted by district population and include district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

We turn next to analysis of the survey data. To provide evidence on the potential bias that missing information on government-caused civilian harm might cause in the behavioral data, we examine how including or excluding each measure affects the estimated effect of the other measure in the survey data. We depict these results visually in Figures 1a and 1b.¹⁶ The size and significance of the association between willingness to tip and perceived lack of insurgent effort to minimize harm to civilians is in the direction predicted by the informational theory and moves by less than 1% with the inclusion or exclusion of the corresponding measure of perceived government effort. The estimated coefficients are statistically indistinguishable when we compare models with and without the data missing from our main specification (Coalition harm).

4.1.2 Civilian tips improve battlefield outcomes

We next report how information sharing affects meaningful operational outcomes. In Table 3 we show the effects on IEDs found and cleared (Column 1), weapons caches found

^{15.} Results in Table 2 are insensitive to choice of lag: lags of 6 or 8 weeks do not alter results substantively or statistically.

^{16.} See full results in Table SI-2 (estimated via equation 2).



Figure 1: Civilians' willingness to tip as function of perceived effort by armed actors to minimize harm to civilians

Notes: Panel A displays the estimated effect of perceived insufficient Government effort to minimize civilian harm on willingness to tip when the model includes the variable on perceived insufficient Insurgent effort (open circle, Column 3 of Table SI-2) and when the model excludes the variable (filled circle, Column 4 of Table SI-2). Panel B displays the estimated effect of perceived insufficient Insurgent effort to minimize civilian harm on willingness to tip when the model includes the variable on perceived insufficient Government effort (open circle, Column 3 of Table SI-2) and when the model excludes the variable (filled circle, Column 5 of Table SI-2). Bars indicate 95% confidence intervals.

and cleared (2), insurgents captured (3), and tactical safe house raids (4). Insurgentinflicted civilian casualties lead to a subsequent increase in each of these operational outcomes that are vital to the success of counterinsurgency. The effects are substantively large. A one standard deviation increase in IED-related tips (0.616 more IED-related tips per week in an average sized district), for example, is associated with a 10.7% increase in roadside bombs found and cleared over the weekly mean level. This effect size amounts to approximately one more IED found per week for every four tips in an average-sized district.¹⁷ Together with the evidence on increased information sharing, this stands as remarkably strong and consistent evidence that harm inflicted on civilians in civil war has strategic consequences.

4.1.3 Supplemental Results

In SI, we provide a series of robustness checks for the main results to increase confidence in the causal claims. First, we evaluate whether there is a substantial difference in estimated

^{17.} Results in Table 3 are insensitive to choice of lag: lags of 6 or 8 weeks do not alter results substantively or statistically.

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Raids
IED TIPS, PC (1 WEEK LAG)	0.0410***	0.0234^{***}		
	(0.0101)	(0.00773)		
All Tips, pc (1 Week Lag)	· · · · ·		0.0130^{***}	0.00257^{***}
			(0.00290)	(0.000540)
SUMMARY STATISTICS				
Outcome Mean	0.00371	0.00121	0.00123	0.000108
Outcome SD	0.0179	0.00857	0.00622	0.00183
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Table 3: Effects of wartime informing on counterinsurgent operational outcomes

Notes: Outcome of interest is specific counterinsurgent outcomes, as noted in column headings. All models are weighted by district population and include district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

magnitudes across the full sample relative to the period characterized by the most intense annual fighting season (Tables SI-4, SI-5, SI-6 and SI-7). Results are largely unaffected. Second, to account for spurious results due to trends which could affect both insurgent activity and tips, such as the deployment of additional government or ISAF forces, we estimate the models with four lags of the dependent variable as added regressors (Tables SI-8 and SI-9). Third, we estimate unweighted regressions (Tables SI-10 and SI-11). Fourth, we provide further evidence that the informational mechanism drives the effects of tips on counterinsurgent outcomes. While the estimated coefficients on all (lagged) tips and (lagged) tips specifically on IEDs deployed are statistically significantly related to IEDs and weapons caches found as outcomes, the size of the effect of specific tips is substantially larger (Table SI-12).

Finally, a concern might be that what drives variation in information sharing is not variation in insurgent-inflicted harm to civilians, as we argue, but rather simply variation in insurgent presence in an area. There could be a mechanical relationship whereby both information sharing and insurgent-initiated incidents increase when more Taliban are in an area to inform on. Our main specifications include multiple lags of combat activity and Taliban activity, which should go some way to dispelling this concern. But we also show that the main results (linking harm and tips, and then information sharing to counterinsurgent outcomes) are robust to the inclusion of an additional set of fixed effects in our models to control for changes in presence of armed actors over longer periods. Specifically, we add to the district and week-of-year fixed effects already in the main specifications a series of interactive fixed effects: province \times year, province \times quarter-year, and district \times year.¹⁸ The direction of the results is unaffected and the magnitudes change little, though some coefficients are estimated less precisely in models that include district \times year fixed effects.

5 Conclusion

In this research note, we present a direct empirical test of key elements of the informationsharing theories of civil war that have shaped the academic study and military doctrine of counterinsurgency for the last half century. These theories posit that governments' military success at the tactical level depends on civilians sharing critical information about insurgent identities, whereabouts, and activities. Civilians, in turn, punish combatants for harming them by sharing or withholding support and local intelligence. We provide compelling evidence that in Afghanistan, civilian harm in insurgent-initiated events led to increased information sharing with the government, and that such information sharing was associated with subsequent counterinsurgent operational effectiveness. There is ample evidence in the historical record to at least suggest that these dynamics are likely to obtain in other irregular asymmetric civil wars.

The results deepen our understanding of the Afghan war and highlight avenues for future research. First, the results provide helpful context for the argument and supporting evidence that insurgents were *not* punished for the harm that they inflicted on civilians, either in terms of changing levels of public support for armed actors (Lyall, Blair, and Imai 2013) or insurgent production of violence (Condra et al. 2010). As the US Department of Defense argued in 2010, "insurgents are responsible for 80% of CIVCAS. However,

^{18.} For models with tips as the outcome variable, results of these regressions are shown in Tables SI-13, SI-14, and SI-15. For counterinsurgent operations as the outcome variable, see Tables SI-16, SI-17, and SI-18.

insurgents can exploit and manipulate CIVCAS events to their advantage, while the U.S. and international forces are held accountable by the Afghan population for all incidents where there are CIVCAS."¹⁹ While it probably is true that "[t]he Taliban rarely faced the widespread outcry triggered by American-inflicted civilian casualties" (Malkasian 2021, 173), our results provide direct evidence that insurgent harm of civilians was counterproductive on average, insofar as it translated into greater information sharing and more effective counterinsurgency operations. Future research should continue investigating how the willingness of civilians to share information may be mediated by the type, intensity, and spatial proximity of combatant harm.

Second, the results demonstrate a very short-run effect of civilian harm on information sharing, and of that intelligence collection on counterinsurgency operations. This is consistent with accounts of the war that observed the insurgency's ability to quickly replace leaders.²⁰ But information-sharing might influence other, longer-run, wartime dynamics, including the resolve and capacity of insurgents to fight and the ability of rebels to credibly bargain with state rivals. If insurgents know that civilian harm affects information sharing, then engaging in civilian abuse is a particularly costly signal of insurgent resolve and capability, which should affect the nature of insurgent-government bargaining in asymmetric conflicts (Wood and Kathman 2014).

Third, winning local support for counterinsurgent campaigns is a core motivation of military aid provision. It drives many recent empirically-focused social science articles investigating the effects of aid as a tool to win "hearts and minds" and thereby establish control over territory and population, as well as reduce insurgent violence (Berman, Shapiro, and Felter 2011; Crost, Felter, and Johnston 2014; Lyall 2019; Sexton 2016; Sexton and Zürcher, forthcoming). The results provide direct evidence of informationcentric theory at the micro-level in this case. Yet we still know relatively little about how civilian sympathies and insurgent strategy respond to these aid interventions. Moreover,

^{19.} Quoted in Munoz (2012, 113-14).

^{20.} An intelligence analyst observed of Operation Haymaker: "Every militant killed in a leadership position was replaced within two or three weeks" (Morgan 2021, 436-37).

the outcome of the war in Afghanistan reinforces that a macro-level political-military strategy involves broader considerations. As critics of the campaign in Afghanistan have argued, consolidating military control is only a small part of what is required to create a legitimate government (Eikenberry 2013). Information sharing may help government forces and their external supporters win battles; a broader strategy is required to win wars.

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SUPPORTING INFORMATION

— For Online Publication Only —

A Data

A.1 Conflict Data

The data on insurgent activities, civilian casualties, and information received by ISAF and Afghan forces was received and processed by Shaver and Wright (2017). The data were declassified and released to them by the U.S. Department of Defense and provide the precise timing and locations (often accurate to the nearest minute and within several meters, respectively) of hundreds of thousands of incidents of insurgent violence throughout the Afghanistan war.

Insurgent Attacks and Civilian Casualties. The dataset is constructed from reports provided by U.S., Afghan, and other ISAF military and police units and includes more than 200,000 observations of attacks perpetrated by insurgents with corresponding details on the weaponry used, as well as whether civilians were (unintentionally) killed or injured in the course of the attack. We use these data as our measure of insurgent violence and civilian casualties in estimated models.

Information Sharing. The dataset also includes tens of thousands of specific incidents of information received by counterinsurgent forces about insurgents. These include specific threats posed by insurgents, frequently identified by the specific attack type (e.g., direct fire, indirect fire, improvised explosive device) as well as reported locations of insurgents. We do not observe the means of collection (in-person, hotline, etc.). Some reports may have been captured via signals, though former ISAF officials indicate these events were unlikely to be released with our records request. If present, however, these records would likely bias our results toward zero.

In the main analysis, we separate all tips into several categories:

 <u>Threats to COIN forces</u>. These tips are on direct fire threats, indirect fire threats, IED threats, and small arms fire threats.

- <u>Threats to civilians</u>. These tips are on assassination threats, intimidation threats, kidnapping threats, and murder threats.
- 3. <u>Tips about insurgent activity</u>. These tips do not involve threats to counterinsurgents or civilians and are on reported location of insurgents, terrorist recruitment, and insurgent meetings.

Counterinsurgent Outcomes. Finally, the dataset includes a variety of details related to operational outcomes, including IEDs found and cleared, weapons caches found and cleared, tactical raids of safe houses, and operations resulting in captured insurgents.

A.2 Survey Data

We use waves 20-27 of the Afghanistan Nationwide Quarterly Assessment Research (AN-QAR) platform for models reported in Table SI-2. The Afghan Center for Socio-Economic and Opinion Research (ACSOR) enumerated these waves of the survey. Using a grid-based random walk method, the firm surveyed ten households from the randomly sampled villages within a district. When ACSOR could not access sampled villages, intercept interviews were used to collect information from residents traveling in neighboring areas.

We analyze responses to three questions in the ANQAR surveys:

- "If you knew that an IED had been planted, how likely would you be to report it?" Coded 1 if response was 'very likely' and 0 otherwise.
- 2. "Do you think the Afghan National Defense and Security Forces (ANDSF) do enough to prevent the killing or injuring of civilians?" Coded 1 if the response is "No, I think the ANDSF doesn't do anything" and 0 otherwise.
- 3. "Do you think the insurgents do enough to prevent the killing or injuring of civilians?" Coded 1 if the response is "No, I think the insurgents don't do anything" and 0 otherwise.

A.3 Survey Descriptive Statistics

Variable	Mean	Std. Dev.	Min.	Max.
Very likely to report IED	0.442	0.497	0	1
Govt. No Effort to prevent CIVCAS	0.089	0.285	0	1
Ins. No Effort to prevent CIVCAS	0.648	0.478	0	1

Table SI-1: Summary statistics for ANQAR survey data

Notes: summary statistics are calculated for the sample studied in the main estimating equations (three digits shown). All variables are weighted by district population (following the main specification).

B Supplementary Results

Table SI-2: Civilians' willingness to tip as function of perceived effort by armed actors to minimize harm to civilians

	(1)	(2)	(3)	(4)	(5)
	Baseline	Baseline	Baseline	Baseline	Baseline
		w. Political	w. Political and	w. Political and	w. Political and
		Controls	Security Controls	Security Controls	Security Controls
Insufficient Govt. Effort	-0.103^{***}	-0.0951^{***}	-0.0879^{***}	-0.0996***	
	(0.00829)	(0.00786)	(0.00746)	(0.00795)	
Insufficient Ins. Effort	0.115^{***}	0.112^{***}	0.108^{***}		0.112^{***}
	(0.00703)	(0.00691)	(0.00661)		(0.00674)
SUMMARY STATISTICS					
Outcome Mean	0.442	0.442	0.442	0.442	0.442
Outcome SD	0.497	0.497	0.497	0.497	0.497
Parameters					
District FE					
Demographic Controls					
Interacted Model					
Govt. going Wrong Direction					
Police Patrols Weekly					
Village Insecure					
Taliban Gaining Strength					
Model Statistics					
Ν	99666	99666	99666	99666	99666
Clusters	377	377	377	377	377

Notes: Outcome of interest is respondent reporting being 'very likely' to report tip on IED if known (from ANQAR survey waves 20-27). 'Insufficient Gov./Ins. Effort'=1 if respondent thinks government/insurgents do not do enough to prevent the killing and injuring of civilians; non-response to both questions are parameterized separately (coefficients omitted). All models include survey sample weights. All models include fixed effects for district, SES, ethnicity, gender, and ANQAR survey wave. Standard errors are clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-3: Civilians' willingness to tip as function of perceived effort by armed actors to minimize harm to civilians, unweighted regressions

	(1)	(2)	(3)	(4)	(5)
	Baseline	Baseline	Baseline	Baseline	Baseline
		w. Political	w. Political and	w. Political and	w. Political and
		Controls	Security Controls	Security Controls	Security Controls
Insufficient Govt. Effort	-0.104***	-0.0953***	-0.0877***	-0.0988***	
	(0.00994)	(0.00904)	(0.00826)	(0.00890)	
Insufficient Ins. Effort	0.111***	0.107^{***}	0.104***		0.108^{***}
	(0.00726)	(0.00718)	(0.00683)		(0.00698)
SUMMARY STATISTICS					
Outcome Mean	0.429	0.429	0.429	0.429	0.429
Outcome SD	0.495	0.495	0.495	0.495	0.495
Parameters					
District FE					
Demographic Controls					
Interacted Model					
Govt. going Wrong Direction					
Police Patrols Weekly					
Village Insecure					
Taliban Gaining Strength					
Model Statistics					
Ν	99666	99666	99666	99666	99666
Clusters	377	377	377	377	377

Notes: Outcome of interest is respondent reporting being 'very likely' to report tip on IED if known (from ANQAR survey waves 20-27). 'Insufficient Gov./Ins. Effort'=1 if respondent thinks government/insurgents do not do enough to prevent the killing and injuring of civilians; non-response to both questions are parameterized separately (coefficients omitted). All models include fixed effects for district, SES, ethnicity, gender, and ANQAR survey wave. Standard errors are clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-4: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces (June-October only)

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.179^{***}	0.129***	0.00692**	0.0392***
	(0.0486)	(0.0324)	(0.00352)	(0.0150)
SUMMARY STATISTICS				
Outcome Mean	0.00845	0.00571	0.000384	0.00317
Outcome SD	0.0285	0.0207	0.00292	0.0132
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	89550	89550	89550	89550
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. Estimated only during the short fighting season (June to October). All models are weighted by district population, include district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Raids
IED TIPS, PC (1 WEEK LAG)	0.0369^{***}	0.0164^{**}		
	(0.0129)	(0.00683)		
ALL TIPS, PC (1 WEEK LAG)			0.0124^{***}	0.00308^{***}
			(0.00350)	(0.000691)
SUMMARY STATISTICS				
Outcome Mean	0.00395	0.000961	0.00129	0.000114
Outcome SD	0.0178	0.00637	0.00658	0.00209
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
MODEL STATISTICS				
Number of Observations	89550	89550	89550	89550
Number of Clusters	398	398	398	398
Notes: Outcome of interest is s only during the short fighting	specific counterinsur	rgent outcomes, as	noted in column headi	ngs. Estimated
OIII) MALLING VILO NUMBER OIIO	DO DI DITTO PI TIDEPDE	MADE IN THINGT	nem an nontration of a	LICE PUPULATION,

1.1 Octob (T. 4 -;+ + 0.4 . to for ÷ 4 Dff.00+0 Table SL-5. include district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-6: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces (May-October only)

(1)	(2)	(3)	(4)
All	Threats to	Threats to	Tips about
Tips	COIN Forces	Civilians	Insurgent Activity
0.196***	0.132***	0.00576^{*}	0.0582***
(0.0471)	(0.0318)	(0.00333)	(0.0161)
0.00850	0.00576	0.000379	0.00314
0.0287	0.0210	0.00291	0.0132
103878	103878	103878	103878
398	398	398	398
	(1) All Tips 0.196*** (0.0471) 0.00850 0.0287 103878 398	(1) (2) All Threats to Tips COIN Forces 0.196*** 0.132*** (0.0471) (0.0318) 0.00850 0.00576 0.0287 0.0210 103878 103878 398 398	$\begin{array}{c cccc} (1) & (2) & (3) \\ \mbox{All} & Threats to \\ \mbox{COIN Forces} & Threats to \\ \mbox{Coillians} \\ 0.196^{***} & 0.132^{***} & 0.00576^{*} \\ (0.0471) & (0.0318) & (0.00333) \\ \hline 0.00850 & 0.00576 & 0.000379 \\ 0.0287 & 0.0210 & 0.00291 \\ \hline \\ 103878 & 103878 & 103878 \\ 398 & 398 & 398 \\ \end{array}$

Notes: Outcome of interest is tips on specific threats, as noted in column headings. Estimated only during the long fighting season (May to October). All models are weighted by district population, include district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

TADIE 21-1: LIIECUS OI WAI'UIIIE I.	morming on counter	rmsurgent operati	onal ouccomes (may-OC	ctober only)
	(1)	(2)	(3)	(4)
	Roadside Bombs Found/Cleared	Weapon Caches Found/Cleared	Insurgents Captured and Detained	Tactical Safe House Raids
IED TIPS, PC (1 WEEK LAG)	0.0404***	0.0175**		
	(2110.0)	(0.00/14)	0 01 1 0***	***300000
ALL LIPS, PC (1 WEEK LAG)			(0.00327)	(0.000707)
SUMMARY STATISTICS				
Outcome Mean	0.00386	0.00104	0.00125	0.000112
Outcome SD	0.0175	0.00695	0.00645	0.00201
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
MODEL STATISTICS				
Number of Observations	103878	103878	103878	103878
Number of Clusters	398	398	398	398
Notes: Outcome of interest is s	specific counterinsur	gent outcomes, as	noted in column headi	ngs. Estimated
only during the long fighting s	season (May to Oct	ober). All models	s are weighted by distr	ict population,
include district and week fixed	l effects. Standard e	errors clustered at	the district level and a	re presented in
parentheses. *** $p < 0.01$, ** l	p < 0.05, * p < 0.1.			

1--1 Octob (M_{12}) + -4 4 ст с. 1:10 4 ц Ц Table CL 7. Table SI-8: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces, including lags of dependent variable

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.0224	0.0237^{*}	0.00655**	0.00887
	(0.0211)	(0.0137)	(0.00285)	(0.0110)
SUMMARY STATISTICS				
Outcome Mean	0.00804	0.00529	0.000374	0.00304
Outcome SD	0.0284	0.0201	0.00289	0.0138
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models are weighted by district population, include four lags of the dependent variable, as well as district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Roadside Bon Found/Clean Found/Clean Found/Clean 0.0150** (0.00714) ALL TIPS, PC (1 WEEK LAG) ALL TIPS, PC (1 WEEK LAG) Outcome Mean Outcome SD 0.0179	mbs Weapon Caches red Found/Cleared 0.00849*** (0.00289) 0.00121	Insurgents Captured and Detained 0.00647*** (0.00173)	Tactical Safe House Raids 0.00131***
IED TIPS, PC (1 WEEK LAG) 0.0150** (0.00714) ALL TIPS, PC (1 WEEK LAG) (0.00714) SUMMARY STATISTICS 0.00371 Outcome Mean 0.00371 Outcome SD 0.0179	$\begin{array}{c} 0.00849^{***} \\ (0.00289) \\ 0.00121 \\ 0.00121 \end{array}$	$\begin{array}{c} 0.00647^{***} \\ (0.00173) \end{array}$	0.00131***
ALL TIPS, PC (1 WEEK LAG) SUMMARY STATISTICS Outcome Mean 0.00371 0.0179	(0.00289) 0.00121	0.00647^{***} (0.00173)	0.00131^{***}
ALL TIPS, PC (1 WEEK LAG) SUMMARY STATISTICS Outcome Mean Outcome SD 0.0179	0.00121	0.00647^{***} (0.00173)	0.00131^{***}
SUMMARY STATISTICSOutcome Mean0.00371Outcome SD0.0179	0.00121	(0.00173)	
SUMMARY STATISTICS Outcome Mean 0.00371 Outcome SD 0.0179	0.00121		(0.000494)
Outcome Mean 0.00371 Outcome SD 0.0179	0.00121		
Outcome SD 0.0179	0 00057	0.00123	0.000108
	100000	0.00622	0.00183
PARAMETERS			
District FE			
Time FE			
Violence Trends			
Civ Cas Trends			
MODEL STATISTICS			
Number of Observations 171936	171936	171936	171936
Number of Clusters 398	398	398	398

Table SI-9: Effects of wartime informing on counterinsurgent operational outcomes, including lags of dependent variable

are weighted by district population, include four lags of the dependent variable, as well as district and week fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.05, * p < 0.1.

Table SI-10: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces, unweighted regressions

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.0441	0.0359	0.00290	-0.00123
	(0.0388)	(0.0220)	(0.00278)	(0.0164)
SUMMARY STATISTICS				
Outcome Mean	0.00952	0.00621	0.000424	0.00402
Outcome SD	0.0386	0.0267	0.00464	0.0210
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models include district and week fixed effects. Models are unweighted. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Kaids
IED TIPS, PC (1 WEEK LAG)	0.0496^{***}	0.0200^{***}		
	(0.00945)	(0.00501)		
ALL TIPS, PC (1 WEEK LAG)			0.0112^{***}	0.00228^{***}
			(0.00278)	(0.000700)
SUMMARY STATISTICS				
Outcome Mean	0.00438	0.00138	0.00123	0.000131
Outcome SD	0.0215	0.0106	0.00800	0.00259
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
MODEL STATISTICS				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398
Notes: Outcome of interest is s	specific counterinsur	gent outcomes, as	noted in column headir	ngs. All models
include district and week fixed	l effects. Models ar	re unweighted. Sta	andard errors clustered	l at the district
level and are presented in pare	entheses. *** $p < 0$.	01, ** $p < 0.05$, *	p < 0.1.	

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	(1)	(2)	(3)	(4)
	Roadside Bombs Found/Cleared	Roadside Bombs Found/Cleared	Weapon Caches Found/Cleared	Weapon Caches Found/Cleared
ALL TIPS, PC (1 WEEK LAG)	0.0145^{**}		0.0111^{***}	
	(0.00620)		(0.00391)	
IED TIPS, PC (1 WEEK LAG)		0.0410^{***}		0.0234^{***}
		(0.0101)		(0.00773)
SUMMARY STATISTICS				
Outcome Mean	0.00371	0.00371	0.00121	0.00121
Outcome SD	0.0179	0.0179	0.00857	0.00857
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
MODEL STATISTICS				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398
Notes: Outcome of interest is slare weighted by district populs	pecific counterinsur ation, and include d	gent outcomes, as n istrict and week fix	oted in column hes ed effects. Standar	idings. All models ed errors clustered
at the district level and are pre-	esented in parenthe	ses. *** $p < 0.01$, *	p < 0.05, * p <	0.1.

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Table SI-13: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces, with province \times year fixed effects

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.140^{***}	0.0918^{***}	0.00858^{***}	0.0341^{**}
	(0.0386)	(0.0233)	(0.00308)	(0.0151)
SUMMARY STATISTICS				
Outcome Mean	0.00804	0.00529	0.000374	0.00304
Outcome SD	0.0284	0.0201	0.00289	0.0138
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as province × year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-14: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces, with province \times quarter-year fixed effects

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.121^{***}	0.0826^{***}	0.00725^{**}	0.0270^{**}
	(0.0343)	(0.0225)	(0.00289)	(0.0129)
SUMMARY STATISTICS				
Outcome Mean	0.00804	0.00529	0.000374	0.00304
Outcome SD	0.0284	0.0201	0.00289	0.0138
Parameters				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as province × quarter-year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-15: Effects of insurgent-initiated civilian casualties on civilians' wartime informing to security forces, with district \times year fixed effects

	(1)	(2)	(3)	(4)
	All	Threats to	Threats to	Tips about
	Tips	COIN Forces	Civilians	Insurgent Activity
CIVCAS, PC (1 WEEK LAG)	0.0421	0.0183	0.00638^{**}	0.00946
	(0.0381)	(0.0205)	(0.00282)	(0.0181)
SUMMARY STATISTICS				
Outcome Mean	0.00804	0.00529	0.000374	0.00304
Outcome SD	0.0284	0.0201	0.00289	0.0138
Parameters				
District FE				
Time FE				
Violence Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is tips on specific threats, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as district × year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-16: Effects of wartime informing on counterinsurgent operational outcomes, with province \times year fixed effects

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Raids
IED TIPS, PC (1 WEEK LAG)	0.0421^{***}	0.0232^{***}		
	(0.00965)	(0.00712)		
All Tips, pc (1 Week Lag)	· · · ·		0.0130^{***}	0.00256^{***}
			(0.00272)	(0.000674)
SUMMARY STATISTICS				
Outcome Mean	0.00371	0.00121	0.00123	0.000108
Outcome SD	0.0179	0.00857	0.00622	0.00183
Parameters				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is specific counterinsurgent outcomes, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as province \times year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

Table SI-17: Effects of wartime informing on counterinsurgent operational outcomes, with province \times quarter-year fixed effects

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Raids
IED TIPS, PC (1 WEEK LAG)	0.0385^{***}	0.0195^{***}		
	(0.00946)	(0.00615)		
All Tips, pc (1 Week Lag)			0.0126^{***}	0.00255^{***}
			(0.00268)	(0.000619)
SUMMARY STATISTICS				
Outcome Mean	0.00371	0.00121	0.00123	0.000108
Outcome SD	0.0179	0.00857	0.00622	0.00183
PARAMETERS				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Notes: Outcome of interest is specific counterinsurgent outcomes, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as province × quarter-year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.

	(1)	(2)	(3)	(4)
	Roadside Bombs	Weapon Caches	Insurgents Captured	Tactical Safe
	Found/Cleared	Found/Cleared	and Detained	House Raids
IED TIPS, PC (1 WEEK LAG)	0.0242^{*}	0.0143^{*}		
	(0.0124)	(0.00803)		
All Tips, pc (1 Week Lag)			0.00744^{***}	0.00176
			(0.00207)	(0.00110)
SUMMARY STATISTICS				
Outcome Mean	0.00371	0.00121	0.00123	0.000108
Outcome SD	0.0179	0.00857	0.00622	0.00183
Parameters				
District FE				
Time FE				
Violence Trends				
Civ Cas Trends				
Model Statistics				
Number of Observations	171936	171936	171936	171936
Number of Clusters	398	398	398	398

Table SI-18: Effects of wartime informing on counterinsurgent operational outcomes, with district \times year fixed effects

Notes: Outcome of interest is specific counterinsurgent outcomes, as noted in column headings. All models are weighted by district population and include district and week fixed effects, as well as district \times year fixed effects. Standard errors clustered at the district level and are presented in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.