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DRONES AND CIVILIANS: EMERGING EVIDENCE OF THE TERRORIZING EFFECTS OF THE U.S. DRONE PROGRAMS

By Patrick J. Keenan *

Abstract

The Biden Administration, in one of its first consequential foreign policy decisions, announced that it would undertake a comprehensive review of the United States drone program. Officials promised that this review would consider all available evidence. This article shows that the U.S. drone program violates international law because of the ways it terrorizes civilian populations. U.S. officials from both parties have argued that drones are an effective part of the U.S. counterterrorism strategy. However, effectiveness is not the legal standard. The law requires that the program not unduly harm civilians. For as long as the U.S. has been using drones, communities in targeted countries have contended that the U.S. kills innocent civilians. The U.S. has typically minimized these claims, even as it has acknowledged some of the deaths. Until recently, this was the state of the argument: the U.S. argued that the drone program was effective, with minimal effects on civilians, while others argued that it caused undue harm to innocent civilians. Neither side found the evidence cited by the other side credible or gave much credence to the other side's arguments.

There is now a growing body of empirical evidence that shows how the U.S. drone program terrorizes civilians in ways that violate the law. Drawing on research from several disciplines, I show the ways the drone program affects the targeted population, civilian and militants alike. The evidence shows that even if drone strikes kill terrorist leaders—strikes the U.S. would consider successful—militants shift their attacks from military targets to civilians. The evidence also shows that the main reason militant violence goes down is not the strikes themselves, but the monitoring and surveillance apparatus associated with the drone program. Areas in which the U.S. maintains an active drone strike program are typically under persistent surveillance and monitoring. Communications are monitored, movements are tracked by surveillance drones, and intelligence-gathering operations are ongoing. Civilians are terrorized by these practices. Taken together, this evidence shows that U.S. operations violate international law because they are indiscriminate: they affect civilians and militants alike, with little effort made to reduce civilian harms.

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INTRODUCTION

Does the United States drone program terrorize civilians to the degree that it violates international law? This is one of the most important questions the Biden Administration must answer as it faces one of its first consequential foreign policy decisions. Emerging evidence suggests that the answer is yes. The Biden Administration has promised to undertake a long-overdue assessment of U.S. targeting policies and practices.¹ But even as it undertakes this review, the U.S. continues to use drone strikes as part of its counterterrorism efforts.² The U.S. drone program is one of the most divisive aspects of U.S. counterterrorism policy.³ Drones are used for many purposes in many places, but most controversial is when they are used to launch missile

¹ See Charlie Savage & Eric Schmitt, *Biden Secretly Limits Counterterrorism Drone Strikes Away from War Zones*, N.Y. TIMES (Mar. 3, 2021) (describing Biden Administration's decision to modify Trump Administration policies on the use of drones and kill/capture raids against terrorism suspects).

² See Eric Schmitt & Declan Walsh, *U.S. Military Conducts a Drone Strike Against Shabab Fighters in Somalia*, N.Y. TIMES (July 20, 2021) (reporting on a U.S. drone attack against Shabab forces fighting in Somalia); Eric Schmitt, *U.S. Carries Out Airstrikes in Iraq and Syria*, N.Y. TIMES (June 27, 2021) (reporting on U.S. drone attacks against Iranian-backed militants in Iraq and Syria).

³ For a sample of the controversies associated with the U.S. drone program, see generally Philip Alston (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), *Rep. of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions*, U.N. Doc. A/HRC/14/24/Add.6 (May 28, 2010) (describing U.S. drone program and arguing that it violates international law in many instances); AMNESTY INTERNATIONAL, *THE HIDDEN US WAR IN SOMALIA: CIVILIAN CASUALTIES FROM AIR STRIKES IN LOWER SHABELLE* (2019) (describing effect on civilians of U.S. drone strikes in Somalia); Connor Friedersdorf, *Obama's Weak Defense of His Record on Drone Killings*, THE ATLANTIC (Dec. 23, 2016) (arguing that U.S. drone strike casualty data regularly undercount civilian casualties); Scott Shane, *Drone Strikes Reveal Uncomfortable Truth: U.S. is Often Unsure About Who Will Die*, N.Y. TIMES (Apr. 23, 2015) (arguing that the U.S. has little accurate data on civilian effects of drone strikes); Salman Masood & Ihsanullah Tipu Mehsud, *Thousands in Pakistan Protest American Drone Strikes*, N.Y. TIMES (Nov. 23, 2013) (reporting on protests in Pakistan against U.S. drone strikes on Pakistani territory); Leila Nadya Sadat, *America's Drone Wars*, 45 CASE WESTERN RES. J. INT'L L. 215 (2012) (arguing that the U.S. drone and targeted killing program has not complied with international law).

strikes against suspected terrorists or their supporters.⁴ Only slightly less contentious is the U.S. policy of launching kill-capture raids against militants, when U.S. forces attempt to capture or kill militants. U.S. policymakers have long argued that drones are an essential component of any counterterrorism strategy.⁵ Although there are significant differences in execution, these two types of direct action against terrorist targets are largely governed by the same legal and policy framework.⁶

Scholars and policymakers have long debated whether U.S. drone policies and practices violate international law, including legal rules requiring combatants to minimize civilian casualties and the impact of armed conflict

⁴ Although it has become common to use the phrase "drone strike," *see, e.g.* Eric Schmitt, *American Drone Strike in Libya Kills Top Qaeda Recruiter*, N.Y. TIMES (Mar. 28, 2018), drones themselves are unmanned aerial vehicles used as a platform from which to launch a missile. *See Drones: What are They and How do They Work?*, BBC NEWS (Jan. 31, 2012) (describing types of missiles carried by and launched from drones). In addition, drones are used for a variety of other purposes. They carry a range of surveillance and monitoring equipment, for example. *Id.* (describing the "wealth of sensors in" drones, including "colour and black-and-white TV cameras, image intensifiers, radar, infra-red imaging for low-light conditions and lasers for targeting"). For a fuller examination of the various uses of drones for the U.S. military, *see generally* Jacqueline L. Hazelton, *Drones: What are They Good For?*, 43 PARAMETERS 29 (2013) (describing military's many uses of drones). In this Article, I use interchangeably the term "drone strikes" and "missile strikes" to mean missiles launched from unmanned aerial vehicles.

⁵ Drones are praised by some policymakers as providing "laser-like precision that can excise that terrorist or that threat" similar to the way that surgeon can excise infected tissue in a way "that will not damage the surrounding tissue." John Brennan, *The Efficacy and Ethics of U.S. Counterterrorism Strategy*, Wilson Center (Apr. 30, 2012) (<https://www.wilsoncenter.org/event/the-efficacy-and-ethics-us-counterterrorism-strategy>). Indeed, some scholars have argued that, because of their precision, military may be obligated under the law of armed conflict to use drones. *See generally* Oren Gross, *The New Way of War: Is There a Duty to Use Drones?*, 67 FLA. L. REV. 1 (2016) (arguing that there may be, under some conditions, an obligation to use drones instead of other available weapons or techniques).

⁶ *See, e.g.* Jo Becker & Scott Shane, *Secret "Kill List" Proves a Test of Obama's Principles and Will*, N.Y. TIMES (May 29, 2012) (describing U.S. counterterrorism operation targeting procedures); Greg Miller, *Plan for Hunting Terrorists Signals U.S. Intends to Keep Adding Names to Kill Lists*, WASH. POST (Oct. 23, 2012) (describing U.S. officials' work to formalize rules by which people are placed on lists to be targeted by raids or missiles).

on civilians.⁷ As the Biden Administration undertakes its promised policy review—one that it has pledged will be based on the best available evidence—it is an appropriate time to examine a small but growing body of scholarship about the civilian effects of drone strikes.⁸ In this Article, I argue that this evidence raises serious questions about whether the U.S. drone program complies with the international law of armed conflict. The U.S. has repeatedly stated that it fully complies with the law of armed conflict in its counterterrorism operations.⁹ This means, among other things, that the U.S. must do all that it is able to minimize the effects of these operations on civilians.¹⁰ There have long been reports of civilian casualties caused by U.S.

⁷ See generally Waseem Ahmad Qureshi, *The Legality and Conduct of Drone Attacks*, 7 NOTRE DAME J. INT. & COMP. L. 91 (2017) (analyzing legality of drone strikes against terrorist suspects); Michael D. Shear & Scott Shane, *Congress to See Memo Backing Drone Attacks on Americans*, N.Y. TIMES (Feb. 6, 2013) (describing debate among policymakers regarding drone targeting policies); Sadat, *supra* note 3 (describing debates about whether U.S. drone and targeted killing program complies with international law).

⁸ See Charlie Savage, *Trump's Secret Rules for Drone Strikes Outside War Zones Are Disclosed*, N.Y. TIMES, May 1, 2021 (describing Biden Administration's planned review of drone targeting policies).

⁹ See Harold Hongju Koh, Legal Adviser, U.S. Department of State, *The Obama Administration and International Law*, Address at Annual Meeting of the Am. Society of Int'l L. (March 25, 2010), <https://2009-2017.state.gov/s/l/releases/remarks/139119.htm> (describing U.S. policy of complying with the international law of armed conflict); Brian Egan, Legal Adviser, U.S. Department of State, *International Law, Legal Diplomacy, and the Counter-ISIL Campaign*, Address at the Annual Meeting of the American Society for International Law (Apr. 1, 2016), <https://2009-2017.state.gov/s/l/releases/remarks/255493.htm> (same); Paul C. Ney, General Counsel, U.S. Department of Defense, *Legal Considerations Related to the U.S. Air Strike Against Qassem Soleimani*, Address at B.Y.U Law School (Mar. 4, 2020), <https://assets.documentcloud.org/documents/6808252/DOD-GC-Speech-BYU-QS.pdf> (same).

¹⁰ See, e.g. INTERNATIONAL COMMITTEE OF THE RED CROSS, CUSTOMARY INTERNATIONAL LAW RULES DATABASE, Rule 15 ("In the conduct of military operations, constant care must be taken to spare the civilian population, civilians and civilian objects. All feasible precautions must be taken to avoid, and in any event to minimize, incidental loss of civilian life, injury to civilians and damage to civilian objects."), https://ihl-databases.icrc.org/customary-ihl/eng/docs/v1_rul_rule15.

operations.¹¹

The new evidence that I highlight in this Article shows that the harmful effects on civilian populations are more significant and more predictable than U.S. policymakers have acknowledged so far. This emerging evidence illuminates many aspects of the effects of the U.S. drone program, but two issues are particularly salient. First, there is evidence that attacks by militants against civilians go up after a drone strike that kills a militant leader.¹² This means that civilians suffer more violence after a drone strike—even a "successful" strike that does not otherwise harm civilians—than was the case before the strike. Second, there is evidence that most of the effects of the drone program are not from missile strikes but from the persistent surveillance and monitoring that are also part of the program.¹³ Attacks by militants against civilians are reduced mostly due to the changes that militants make in response to surveillance, monitoring, and the threat of drone strikes.¹⁴ Importantly, civilians feel these effects as well. Their lives are similarly monitored, which damages their mental health, livelihoods, and communities. These findings, which are beginning to emerge in recent

¹¹ There are no agreed-upon statistics on civilian casualties, but there are several credible sources of this information. For example, the Bureau of Investigative Journalism maintains a comprehensive database of casualties caused by drone strikes in Afghanistan, Pakistan, Somalia, and Yemen. *See* THE BUREAU OF INVESTIGATIVE JOURNALISM, DRONE DATABASE, <https://www.thebureauinvestigates.com/projects/drone-war>; The New America Foundation maintains a similar database. *See* Peter Bergen, David Sterman & Melissa Salyk-Virk, *America's Counterterrorism Wars*, <https://www.newamerica.org/international-security/reports/americas-counterterrorism-wars/>; As of Apr. 2021, the Bureau of Investigative Journalism's database showed that there were between 4126-10,076 deaths from drone strikes in Afghanistan, 2515-4026 deaths in Pakistan, 1197-1410 in Somalia, and 1020-1389 in Yemen. THE BUREAU OF INVESTIGATIVE JOURNALISM, DRONE DATABASE, <https://www.thebureauinvestigates.com/projects/drone-war>.

¹² *See* Max Abrahms & Philip B.K. Potter, *Explaining Terrorism: Leadership Deficits and Militant Group Tactics*, 69 INT'L ORG. 311, 331 (2015) (describing finding that militant violence against civilians increased after a strike deemed successful because it killed a militant leader).

¹³ *See* Asfandyar Mir & Dylan Moore, *Drones, Surveillance, and Violence: Theory and Evidence from a U.S. Drone Program*, 63 INT'L STUD. QUARTERLY 846, 847 (2019) (reporting their finding that "nearly 75 percent of the violence reduction is associated with the drone program period without airstrikes and about 25 percent is associated with aggregated effects of individual strikes").

¹⁴ *Id.* at 847 (describing anticipatory effects associated with the drone program, including decreased movement and other behavior changes).

scholarly research, suggest that U.S. operations are harming civilians in ways that are predictable and in violation of the international laws of armed conflict that the U.S. has pledged to respect. As the Biden Administration evaluates the drone program and draws up new rules, this evidence should be a crucial part of its assessment.

My argument proceeds in three main parts. In Part I, I analyze the law and policy framework governing U.S. direct actions against suspected terrorists. This matters because this is the legal standard to which the U.S. must be held. In Parts II and III, I analyze recent evidence regarding the harmful effects of the U.S. drone program on affected communities that has been largely absent from the debate over U.S. actions. In Part II, I summarize the findings that show how drone strikes could be considered "effective."

In Part III, I present the evidence most important to my argument that the U.S. program may well have violated the international law of armed conflict. The evidence suggests that after strikes that kill their leaders, militants appear to shift their violence from military or government targets to civilians.¹⁵ And the evidence suggests that the main reason that militant violence goes down is not the strikes themselves but the monitoring and surveillance apparatus associated with the drone program.¹⁶ Civilians are deeply affected by these practices. Their lives are disrupted by the persistent surveillance, the observation of their movements, and the risk that their innocent movements—such as using a flashlight at night to attend to agricultural fields—will lead to them being targeted with a missile. Taken together, these studies suggest that the U.S. is not complying with the laws of armed conflict. Its operations are indiscriminate: they affect civilians and militants alike, with little effort made to reduce civilian harms. And the effects on civilians are not proportionate to the military advantages gained by the operations.

Before moving on, two important caveats are in order. First, much of the information about the U.S. government's counterterrorism actions comes from news reports, leaks from whistleblowers, or reports from advocates.¹⁷

¹⁵ See discussion *infra* Sections II.C and III.

¹⁶ See discussion *infra* Sections IV.A & B.

¹⁷ See, e.g. Mark Mazzetti & Michael Schmidt, *Ex-Worker at C.I.A. Says He Leaked Data on Surveillance*, N.Y. TIMES (June 9, 2013). For a catalogue of the various revelations that came from material leaked by Snowden, see Lawfare, *Snowden Revelations*, <https://www.lawfareblog.com/snowden-revelations>; Jeremy Seahill, *The Assassination Complex*, THE INTERCEPT (Oct. 15, 2015), <https://theintercept.com/drone-papers/the-assassination-complex/> (describing

News reports are not in every case the ideal source of evidence about ongoing government programs, but I rely on this information because it is the best available. In addition, throughout this Article, I note when appropriate if the news reports are contested or if there are reasons to suspect that they are inaccurate or incomplete. The second caveat is that the available evidence does not permit causal claims on what the central issues are for me: how the U.S. drone program affects civilian populations and whether it complies with the international law of armed conflict. Any analysis of the relationship between drone strikes and other direct counterterrorism actions and their effects on either civilians or on future terrorist actions must acknowledge this issue. Nonetheless, it is instructive to examine the available evidence to identify any useful patterns.

I. LAW AND POLICY GOVERNING U.S. DIRECT ACTIONS AGAINST TERRORIST TARGETS

The U.S. asserts that it complies with the relevant international law of armed conflict in its counterterrorism operations. The law of armed conflict imposes responsibilities and places limitations on combatants in their operations. This is relevant to my argument because it supports the contention that all parties to a conflict bear responsibility for gathering as much information as possible about the effects of their actions on non-combatants; it is not permissible for combatants to ignore evidence of the effects of their past operations as they shape policy. Operations with the predictable and documented effect of terrorizing the civilian population are illegal. Parties may not rely on the excuse that they did not know of the consequences of their practices when the lack of knowledge was caused by a failure to consider available evidence. Parties may not rely on their opponent's misdeeds to excuse their own; those who put their own citizens at risk may be at fault even if the attacker is also at fault. This supports the argument that is developed fully in Part II: the U.S. must, to comply with the laws of armed conflict, consider the predictable, known consequences of its airstrikes. When the U.S. targets militants who live among civilians, those airstrikes have profound, demonstrable effects on civilians. To ignore those effects is to violate international law.

The U.S. has long maintained that it complies with the laws of war with respect to its fight against al Qaeda, ISIS, and other terrorist organizations.¹⁸ More specifically, the U.S. argues that because the opposing

leaked documents revealing process by which terrorist suspects are targeted).

¹⁸ See, e.g., Koh, *supra* note 9 (stating that the U.S. complies with relevant laws of

forces are non-state actors, it is engaged in a non-international armed conflict.¹⁹ This body of law imposes a set of principles that affect the targeting decisions that belligerents make.²⁰ The purpose of the principles is to minimize the effects of armed conflict on civilian populations and ensure that belligerents engage each other militarily rather than attempt to win the conflict by other means, such as engaging in ethnic cleansing or terrorizing the local populace.²¹ Importantly, the U.S. argues that it is engaged in a non-international armed conflict everywhere in the world, not just in those geographic areas in which there are currently kinetic military operations.²² This means that the U.S. argues that it is legally entitled to use wartime targeting rules anywhere in the world it wishes (assuming that the other criteria for using force are met), even if there is no armed conflict in that geographic area at that time.²³ This stands in contrast to the traditional understanding of the law of armed conflict, which holds that human rights standards govern law enforcement and security personnel outside areas of

armed conflict in its counterterrorism operations).

¹⁹ See Egan, *supra* note 9 (describing U.S. legal position that it complies with the law of armed conflict in its counterterrorism operations).

²⁰ See Steven Haines, *The Developing Law of Weapons: Humanity, Distinction, and Precautions in Attack*, OXFORD HANDBOOK OF INT'L L. IN ARMED CONFLICT 273, 282-290 (Andrew Chapham & Paola Gaeta, eds., 2014) (describing the principles that regulate targeting decisions in armed conflict, including the requirement that belligerents take every effort to distinguish between combatants and non-combatants in order to minimize the impact of conflict on non-combatants).

²¹ See Andrea Bianchi & Yasmin Naqvi, *Terrorism*, in OXFORD HANDBOOK OF INT'L L. IN ARMED CONFLICT 574, 579-586 (Andrew Chapham & Paola Gaeta, eds., 2014) (describing legal prohibition of attacks aimed at terrorizing the population in times of armed conflict).

²² See Jennifer C. Daskal, *The Geography of the Battlefield: A Framework for Detention and Targeting Outside the Hot Conflict Zone*, 161 U. PA. L. REV. 1165, 1176-1181 (2013) (describing U.S. position that there are no legal limits on the geography of armed conflict with terrorist organizations).

²³ See John O. Brennan, Assistant to the President for Homeland Sec. and Counterterrorism, Remarks at the Program on Law and Security at Harvard Law School: Strengthening Our Security by Adhering to Our Values and Laws (Sept. 16, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/09/16/remarks-john-o-brennan-strengthening-our-security-adhering-our-values-an> (arguing that the U.S. does not view its "authority to use military force" against terrorist organizations as being "restricted solely to 'hot' battlefields like Afghanistan" but also extending to wherever belligerent forces are located).

active armed conflict.²⁴ On the traditional view, for example, where there is no armed conflict, belligerents must arrest opposing forces rather than simply detain or attack them.²⁵

Partly in response to its position that the war on terror has no geographic limits, the U.S. has created an additional layer of restraints that apply outside of "areas of active hostilities."²⁶ Put differently, in areas that would not fall within the traditional definition of armed conflict, the U.S. has vowed to apply limits by policy even as it rejects legal limits. In addition to these restrictions required by the law of armed conflict, the U.S. has imposed on itself a policy framework ostensibly designed to further minimize the effects on civilians of its counter-terrorist operations.²⁷ These policies, put in force through executive orders and orders from the Secretary of Defense, purport to require the U.S. military to launch lethal direct actions only after a

²⁴ See Daskal, *supra* note 23, at 1187-1192 (describing legal view that there are territorial limits on armed conflict which restrict the geographic areas in which belligerents may apply the laws of armed conflict). This is different from areas outside of the geographic boundaries of armed conflict under the conventional understanding of international law. There belligerents are required to comply with human rights-based law enforcement rules. See Hans-Joachim Heintze, *On the Relationship Between Human Rights Law Protection and International Humanitarian Law*, 86 Int'l Rev. Red Cross 789, 789-790 (2004) (describing traditional understanding of role of human rights law and the law of armed conflict). Thus, under the traditional understanding of international the default rule is that human rights standards apply everywhere and the law of armed conflict only applies where and when there is an armed conflict. See Philip Alston (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), ¶¶ 28-33 U.N. Doc. A/HRC/14/24/Add.6 (May 28, 2010). In contrast, the U.S. position in in counterterrorism operations is that the default rule is that the law of armed conflict applies everywhere.

²⁵ For a fuller discussion of relationship between international humanitarian law and international human rights law, including the boundaries and overlap, see Derek Jinks, *International Human Rights Law in Time of Armed Conflict*, in OXFORD HANDBOOK OF INT'L L. IN ARMED CONFLICT 656, 662-665 (Andrew Chapham & Paola Gaeta, eds., 2014).

²⁶ See WHITE HOUSE, PROCEDURES FOR APPROVING DIRECT ACTION AGAINST TERRORIST TARGETS LOCATED OUTSIDE THE UNITED STATES AND AREAS OF ACTIVE HOSTILITIES (May 22, 2013), https://www.justice.gov/oip/foia-library/procedures_for_approving_direct_action_against_terrorist_targets/download.

²⁷ See U.S. DEP'T OF DEF., LAW OF WAR MANUAL 62-65 (2016) (describing precautions required by U.S. military designed to minimize effects of armed conflict on civilian populations).

thorough review of the appropriateness of the target and the alternatives to lethal direct action.²⁸

In this part, I first describe the traditional understanding of the laws and policies governing targeting decisions. I then describe and analyze U.S. policies that govern U.S. actions outside areas of active hostilities. Finally, I show how these laws and policies are implemented in practice. This helps to set up the discussion in Part II on the effects of drone strikes on civilian populations. These impacts are important for many reasons, of course. First among them is whether current U.S. policy, including a deeper understanding of its consequences, is consistent with domestic and international law. Thus, a thorough examination of the legal regime is necessary. Also important, of course, is that U.S. policies affect the lives of real people who must live with the consequences both of alleged terrorists living in their midst and with efforts to attack those terrorists. Finally, it is important to analyze whether the use of drone strikes against terrorist targets is effective as a policy.

A. The Law Governing Direct Actions Against Terrorist Targets

Direction action against terrorist targets is governed by three distinct legal regimes: the domestic and international law rules for the use of force, the law of armed conflict principles governing the way force may be used, and U.S. policy that purports to implement these rules.²⁹ In this part, I

²⁸ See generally ANDREW COCKBURN, *KILL CHAIN: THE RISE OF THE HIGH-TECH ASSASSINS* (2015) (describing the processes that govern the U.S. targeting process); see also Richard Murphy & Afsheen John Radsan, *Due Process and Targeted Killing of Terrorists*, 31 *CARDOZO L. REV.* 405, 422-437 (2009) (describing and analyzing the U.S. due process arguments regarding terrorism targeting decisions).

²⁹ For an excellent overview of the various sources of law relevant to the U.S. drone program, see *Legality of Targeted Killing Program Under International Law*, LAWFARE, <https://www.lawfareblog.com/legality-targeted-killing-program-under-international-law>; see also *Legality of U.S. Government's Targeted Killing Program Under Domestic Law*, LAWFARE, <https://www.lawfareblog.com/legality-us-governments-targeted-killing-program-under-domestic-law>. In this Article I focus on U.S. law and policy because the U.S. is the dominant actor in counterterrorism operations, but that focus should not obscure the fact that U.S. legal claims are contested. This is particularly true with respect to targeted killings. For example, the U.N. Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions submitted a report to the Human Rights Council in which he presented a distinctly different view of existing international law. See Philip Aston (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), *supra* note 3. The

examine these various legal rules. First, I analyze the ways that U.S. and international law regulates the use of drones, or other force, against terrorist targets. There are a number of legal bases for these actions, and I focus on those most relevant to my argument. Next, I examine the international law of armed conflict, which also regulates U.S. practices. Taken together, these two bodies of law are the rules against which U.S. practices must be measured.

i. Domestic Legal Bases for the Use of Direct Action Against Terrorist Targets

The U.S. has consistently argued that the 2001 Authorization for the Use of Military Force (2001 AUMF),³⁰ provides an adequate legal basis for the U.S. to attack terrorist targets.³¹ The 2001 AUMF authorizes the President "to use all necessary and appropriate force" against those persons, states, and organizations that were involved in the attacks of September 11, 2001.³² The 2001 AUMF has been used to justify a wide range of actions since it was enacted, including the war in Afghanistan and attacks against individual terrorists.³³ In addition, the U.S. has argued that the President has independent authority, under Article II of the Constitution, as commander-in-chief of the U.S. military to use force to protect the U.S.³⁴ The U.S. argues that many of its counterterrorism operations are also authorized by the inherent right of self-defense recognized in Article 51 of the U.N. Charter.³⁵ Finally, Executive Order 12,333³⁶ regulates the U.S. legal position. Executive Order 12,333 bans persons acting on behalf of the U.S. from committing or assisting others to commit assassinations.³⁷ As an executive order, it amounts

Special Rapporteur argued that targeted killings may amount to unlawful assassinations in many circumstances, especially when drones are used. *See, e.g., id.* ¶ 53, 79-84.

³⁰ Authorization for Use of Military Force (AUMF), Pub. L. No. 107-40, 115 Stat. 224 (2001).

³¹ *See* Koh, *supra* note 9; *See also* Egan, *supra* note 9.

³² *See supra* note 30.

³³ *See* CONG'L RES. SERV., PRESIDENTIAL REFERENCES TO THE 2001 AUTHORIZATION FOR USE OF MILITARY FORCE IN PUBLICLY AVAILABLE EXECUTIVE ACTIONS AND REPORTS TO CONGRESS (Feb. 16, 2018) (detailing all U.S. government actions for which the 2001 AUMF was the cited authority).

³⁴ *See* U.S. CONST. art. II.

³⁵ *See* Egan, *supra* note 9.

³⁶ United States Intelligence Activities, Exec. Order No. 12,333, 3 C.F.R. § 200 (1981) (Dec. 4, 1981).

³⁷ *Supra* note 36, § 2.11.

to a self-imposed but legally binding limitation on the President's actions.³⁸ The U.S. has argued that the assassination ban does not prohibit targeted killings so long as they are part of an armed conflict and are done in a way that is consistent with the law of armed conflict.³⁹

Taken together, these sources provide the domestic legal basis for U.S. counterterrorism direct actions. The U.S. has consistently argued that all of its actions have been consistent with, and indeed *must* be consistent with, the relevant legal authorities.⁴⁰ As stated, this is important because it provides the legal template against which U.S. counterterrorism operations must be evaluated.

ii. The International Law of Armed Conflict

The law of armed conflict has deep roots in international law.⁴¹ The modern law of armed conflict, based in large measure on treaties signed in the Hague and Geneva, comprises principles that govern the conduct of belligerents.⁴² The first principle is that parties in an armed conflict must take effective measures to distinguish between legitimate military targets and civilian targets, the latter must not be targeted.⁴³ In practice, complying with the principle of distinction can mean several things. For example, it can mean providing some level of warning to civilians before an attack on an area in which civilians are known to be sheltering.⁴⁴ Another important limitation associated with the principle of distinction is the ban on indiscriminate attacks.⁴⁵ These are attacks that make it impossible to distinguish between

³⁸ See VIVIAN S. CHU & TODD GARVEY, CONG'L RES. SERV., RS2084, *Executive Orders: Issuance, Modification, and Revocation* 7-8 (Apr. 16, 2014) (describing ability of president to revoke or modify executive orders).

³⁹ See Koh, *supra* note 9.

⁴⁰ See Egan, *supra* note 9.

⁴¹ See, e.g., DAVID BEDERMAN, INTERNATIONAL LAW IN ANTIQUITY 208 (2006) (arguing that "there is enough evidence to suggest that there were certain rules of conduct in warfare that were consistently observed by ancient States").

⁴² See WILLIAM H. BOOTHBY, THE LAW OF TARGETING 35-40 (2012) (describing the origins of the legal rules that govern armed conflict).

⁴³ See *id.* at 60-62 (describing content of the principle of distinction, requiring belligerents to make "a distinction ... throughout the conflict between those who may be lawfully attacked and those who must be respected and protected").

⁴⁴ *Id.* at 234-235.

⁴⁵ See *id.* at 60-73 (defining indiscriminate weapons and describing legal prohibition against using such weapons).

legitimate and illegitimate targets.⁴⁶ For example, certain weapons such as nuclear weapons are by their very nature indiscriminate and therefore may be prohibited in many circumstances.⁴⁷ And belligerents must take special care with targets shared by civilians and combatants alike, making it difficult for belligerents to be certain that they are actually attacking legitimate targets.⁴⁸

The principle of proportionality requires belligerents to use a level of force that is proportional to the expected military objective.⁴⁹ As with the principle of distinction, this principle is an important limitation on belligerents in armed conflict. Commanders must use the least destructive means available that can accomplish the military's legitimate goals.⁵⁰ This calculation will, of course, depend on the information available at the time, the commander's calculation of the expected military advantage, and the commander's assessment of the risk of civilian casualties.⁵¹

The principle of necessity operates as a kind of permission for armed forces to use those measures necessary to defeat the enemy militarily.⁵² It does not grant permission to use any means available. Instead, it specifies that the sole legitimate military purpose is to damage the military or military

⁴⁶ WILLIAM H. BOOTHBY, *WEAPONS AND THE LAW OF ARMED CONFLICT* 60 (2d ed. 2016) (noting that the law of armed conflict requires that all weapons "be capable of adequate control both as to the place of its impact and the nature and extent of its effects").

⁴⁷ See Stefan Oeter, *Methods and Means of Combat*, in *HANDBOOK OF HUMANITARIAN LAW IN ARMED CONFLICTS* 105, 138-42 (Dieter Fleck ed., 1995) (describing regulation of nuclear weapons under law of armed conflict principles).

⁴⁸ *Id.* at 194-97 (describing legal requirements for targeting and protecting dual-use objects and facilities).

⁴⁹ See *id.* at 111-16 (defining principle of proportionality).

⁵⁰ See William J. Fenrick, *The Rule of Proportionality and Protocol in Conventional Warfare*, 98 *MIL. L. REV.* 91, 96-98 (1982) (describing the legal bases and contours of the principle of proportionality).

⁵¹ See BOOTHBY, *supra* note 47, at 475-80 (describing targeting processes and calculations that commanders must undertake to comply with the law of armed conflict).

⁵² Geoffrey S. Corn, *Filling the Void: Providing a Framework for the Legal Regulation of the Military Component of the War on Terror through Application of Basic Principles of the Law of Armed Conflict*, 12 *ILSA J. INT'L & COMPAR. L.* 481, 483-84 (2006) (defining and analyzing various interpretations of the principle of military necessity).

capacity of opposing forces.⁵³ In accordance with this principle, military objectives are those that make an effective contribution to the opposing military and whose destruction would result in a military advantage to the attacking force.⁵⁴

In operation as a coherent whole, compliance with the laws of armed conflict sets the minimum standards on a state's actions in several ways. First, the law of armed conflict requires belligerents to explicitly consider the risks of civilian casualties in all of their operations.⁵⁵ Belligerents are not required to ensure that there is absolutely no risk of civilian casualties. Instead, they typically must undertake two calculations. One is whether the operation's planners have done enough to ensure that appropriate measures have been taken to avoid civilian casualties to the extent possible.⁵⁶ Another is to determine whether, despite the steps taken, the risk of civilian casualties is outweighed by the expected military advantage to be gained in the operation.⁵⁷ Second, the law of armed conflict means that belligerents must attempt to defeat their opponents militarily and not by some other means. Pursuant to the principle of necessity, the law's permission to use violence extends only to those objects (and persons) whose destruction will damage the opposing force's military capacity.⁵⁸ Thus, for example, the law limits the targeting of civilian faith or cultural leaders whose removal might demoralize the opponent. The law prohibits the use of techniques whose effects are

⁵³ Christopher Greenwood, *Historical Development and Legal Bases*, in HANDBOOK OF HUMANITARIAN LAW IN ARMED CONFLICTS 1, 30-33, (Dieter Fleck ed., 1995) (describing the principle of military necessity, including its limits).

⁵⁴ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Armed Conflicts, June 8, 1977, Protocol I, Art. 52(2) (limiting attacks to "those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage").

⁵⁵ See BOOTHBY, *supra* note 42, at 60-62 (describing rules governing targeting and protection of civilians).

⁵⁶ See, e.g., UNITED STATES ARMY, *The Commander's Handbook on the Law of Land Warfare* 2-52019 (stating that the law of armed conflict requires those planning military operations to consider in advance the risks posed to civilian populations).

⁵⁷ Greenwood, *supra* note 53, at 30-33 (describing requirement that commanders comply with the principle of military necessity).

⁵⁸ Greenwood, *supra* note 53, at 30-33 (describing the contours of the principle of necessity).

experienced equally by combatants and civilians.⁵⁹

In addition to these bedrock principles, there are three additional issues that are relevant to my argument. First, both the attacker and the defender must comply with international humanitarian law.⁶⁰ The attacker's obligation is clearly understood. But the defender's obligation is based on the same logic as the attacker's obligation. All parties in armed conflict have a legal obligation to minimize the effect of the conflict on non-combatants.⁶¹ This requirement, for example, would prohibit belligerents from deliberately putting non-combatants in harm's way. The second additional issue is that the law requires those engaged in armed conflict base their decisions on good information. Compliance with the principle of distinction can mean that belligerents must base their targeting decisions on reliable information, and that relying on a flawed intelligence-gathering process might amount to a violation of the principle. For example, commanders who base their targeting systems on faulty intelligence or unreliable intelligence-gathering processes may be violating the principle of distinction.⁶² Finally, and perhaps obviously, the principle of distinction also prohibits the use of any uses of violence whose primary purpose is to spread terror among the civilian population.⁶³ This includes not just "direct attacks against civilians" but also "may include indiscriminate or disproportionate attacks."⁶⁴ And the harms from these attacks may include the "extensive trauma and psychological

⁵⁹ Greenwood, *supra* note 53, at 30-33 (noting that the law of armed conflict does not permit inflicting undue harm on civilians simply because it would provide a military advantage).

⁶⁰ See Michael N. Schmitt, *Human Shields in International Humanitarian Law*, 47 COLUM. J. TRANSNAT'L L. 292, 301-22 (2009) (describing legal obligations of defenders—those being attacked—with respect to the principle of distinction).

⁶¹ Nils Melzer, *The Principle of Distinction Between Civilians and Combatant*, in OXFORD HANDBOOK OF INT'L L. IN ARMED CONFLICT (Andrew Clapham & Paola Gaeta eds., 2014) (arguing that the "primary aim of ... international humanitarian law ... is to protect the victims of armed conflict").

⁶² See, e.g., John J. Merriam, *Affirmative Target Identification: Operationalizing the Principle of Distinction for U.S. Warfighters*, 56 VA. J. INT'L L. 83, 118-21 (2016) (describing requirement of reliable intelligence in compliance with the principle of distinction).

⁶³ Protocol Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of Armed Conflicts, June 8, 1977, Protocol II, Art. 13(2).

⁶⁴ Prosecutor v. Galic, Case No.: IT-98-29-A, Appeal Judgment ¶ 102 (Int'l Crim. Trib. for the Former Yugoslavia, Nov. 30, 2006).

damage" that comes from living in a state of constant threat of attack.⁶⁵

The U.S. position on many of these issues is different from the traditional understanding of international law. Traditionally, an armed conflict existed in a specific and identifiable geographic area, and it was only in that area that forces were permitted to use the looser targeting rules under the laws of armed conflict.⁶⁶ Belligerents in an armed conflict can kill opposing forces with no warning (assuming they comply with other provisions of the law).⁶⁷ They can seize the enemy without probable cause and detain them without trial. Outside of an armed conflict, these actions would amount to significant violations of important rights. Thus the U.S. position is important because it purports to justify actions that would not otherwise be consistent with foundational principles of international law.

B. The U.S. Policy Framework

In addition to its pledge to comply with the laws of armed conflict, the U.S. government has created a series of policies that further regulate its counterterrorism operations.⁶⁸ There are, of course, many policies that affect

⁶⁵ *Id.*

⁶⁶ See Daskal, *supra* note 22, at 1174-76 (contrasting traditional territorial understanding of armed conflict with U.S. position, including associated limitations on the types of actions permitted under each regime). This stands in contrast to areas outside of the geographic boundaries of armed conflict. There belligerents are required to comply with human rights-based law enforcement rules. See Hans-Joachim Heintze, *On the Relationship Between Human Rights Law Protection and International Humanitarian Law*, 86 INT'L REV. RED CROSS 789, 789-90 (2004) (describing traditional understanding of role of human rights law and the law of armed conflict). Thus, under the traditional understanding of international the default rule is that human rights standards apply everywhere and the law of armed conflict only applies where and when there is an armed conflict. See Philip Alston (Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions), ¶¶ 28-33 U.N. Doc. A/HRC/14/24/Add.6 (May 28, 2010). In contrast, the U.S. position in in counterterrorism operations is that the default rule is that the law of armed conflict applies everywhere.

⁶⁷ See Knut Ipsen, *Combatants and Non-Combatants* in HANDBOOK OF HUMANITARIAN LAW IN ARMED CONFLICTS 65, 68, (Dieter Fleck ed., (1995) (noting that lawful combatants are permitted to use force during an armed conflict without fear of later prosecution).

⁶⁸ It is important to note that throughout this discussion of U.S. policy, I am relying to the extent possible on official statements from the U.S. government or reliable reporting on the U.S. position. Determining whether the proffered reasons for action are the actual reasons is beyond the scope of this Article.

counterterrorism operations.⁶⁹ My focus is on those that affect the selection of targets. Since the attacks of September 11, 2001, U.S. policy on targeting has struggled to reconcile two difficult issues. One is the geography of the battlefield.⁷⁰ The basic question is where, exactly, do the laws of armed conflict apply and where do the more strict human rights-based law enforcement rules apply.⁷¹ The second difficult issue is how to conduct operations when the opposing forces are not conventional fighting forces.⁷² The opposing forces are often individuals who play both a civilian and military role, are closely integrated into civilian populations, and are often indistinguishable from them much of the time. These two thorny issues are, of course, related. In what might be described as the paradigmatic armed conflict, the battlefield comprises those places in which there are ongoing kinetic operations, and only within that battlefield, the looser targeting rules permitted by the laws of armed conflict apply. The law of armed conflict has evolved a set of considerations to determine when and where there is an armed conflict at any given moment. Although the details of this issue are beyond the scope of this Article, two factors typically have been accepted as part of the definition: that the battlefield has geographic boundaries that are roughly known by all involved, and that there must be a fairly high level of ongoing violence for an area to be considered a battlefield.⁷³

The U.S. argument that it is engaged in a non-international armed conflict that has no geographic boundaries has come into direct conflict with these traditional notions of the laws of armed conflict.⁷⁴ In part to address

⁶⁹ For just two of many examples, see CARLA HUMUD, ET AL., CONG'L RES. SERV., ISLAMIC STATE FINANCING AND U.S. POLICY APPROACHES (2015) (describing range of policies governing U.S. responses to terrorism financing) and CONG'L RES. SERV., LEGAL TOOLS TO DETER TRAVEL BY SUSPECTED TERRORISTS: A BRIEF PRIMER (2015) (describing U.S. policies to stop or reduce travel by potential terrorists).

⁷⁰ See Daskal, *supra* note 22, at 1172-1201 (describing various legal approaches to determining the location of an armed conflict, including consideration of U.S. position that the conflict has no boundaries).

⁷¹ See Jinks, *supra* note 25, at 656-57 (describing traditional view that in an armed conflict, the law of war displaced ordinary law).

⁷² See BOOTHBY, *supra* note 46, at 556-60 (analyzing the fit between the conventional law of armed conflict and new conflicts involving belligerents that blur the lines between civilian and military operations).

⁷³ See Daskal, *supra* note 22, 1172-1201 (describing ways to determine the geographic scope of an armed conflict).

⁷⁴ See *generally* Daskal, *supra* note 22 (describing conflicts between the U.S. position and the legal arguments made by other states).

these concerns, the U.S. has promulgated policies that had the effect of restricting the use of force and ensuring that targeting decisions outside of active conflict zones were made by senior leaders instead of battlefield commanders. The most well-known policy is the 2013 Presidential Policy Guidance, developed by the Obama Administration to regularize the process by which individuals were selected for targeting.⁷⁵ Before the 2013 PPG, U.S. policy was largely set by its interpretation of the laws of war. Under the U.S. approach, because there were no geographic limits on the armed conflict with al Qaeda and associated forces, it was entitled to use lethal force anywhere. When the Trump Administration came into power in 2017, it changed the 2013 PPG to loosen the standards for targeting.⁷⁶ As one of its first acts, the Biden Administration set aside the looser Trump Administration rules and implemented more stringent safeguards.⁷⁷ In this part, I briefly trace U.S. policy in these periods. This part is important because it describes the rules under which the U.S. uses drone strikes in counterterrorism operations. Any analysis of whether, and under what conditions, drones may be an effective tool against terrorism must take into consideration the rules under which drones are used.

i. The 2013 Presidential Policy Guidance

The existence of the 2013 Presidential Policy Guidance (hereinafter 2013 PPG) was suspected before it was disclosed.⁷⁸ In a speech in May 2013, President Obama described in general terms the principles by which his

⁷⁵ *Procedures for Approving Direct Action Against Terrorist Targets Located Outside the United States and Areas of Active Hostilities*, JUSTICE.GOV(May 22, 2013), https://www.justice.gov/oip/foia-library/procedures_for_approving_direct_action_against_terrorist_targets/download (introducing term "areas of active hostilities"); Christian Schaller, *Using Force Against Terrorists "Outside Areas of Active Hostilities"—The Obama Approach and the Bin Laden Raid Revisited*, J. CONFLICT & SEC. L. 195, 211-218 (2015) (describing contested issues regarding geography of conflict area under U.S. policy and practice)., J. CONFLICT & SEC. L. 195, 211-218 (2015) (describing contested issues regarding geography of conflict area under U.S. policy and practice).

⁷⁶ Charlie Savage & Eric Schmitt, *Trump Likely To Ease Limits On Terror War*, N.Y. TIMES, Sept. 21, 2017, at A1.

⁷⁷ See Savage & Schmitt, *supra* note 1 (describing Biden Administration decision to modify Trump Administration policies on the use of drones and kill/capture raids against terrorism suspects).

⁷⁸ See Charlie Savage & Peter Baker, *Obama, in a Shift, to Limit Targets of Drone Strikes*, N.Y. TIMES, May 22, 2013 (describing Obama Administration policies restricting drone strike targeting).

administration selected individuals for targeting and attempted to reduce civilian casualties from drone strikes.⁷⁹ The policy that the President was describing came to be known as the 2013 PPG.⁸⁰ The policy explicitly applied to operations outside of areas of active hostilities (and outside the U.S.). Those areas were not specified in the policy itself, but news reports indicated that areas of active hostilities at that time were Afghanistan, Iraq, Syria, and parts of Libya.⁸¹ Operations outside those areas—such as those undertaken in Pakistan, Somalia, and Yemen—were governed by the policy. The policy described the bureaucracy and processes of targeting in addition to the substantive principles that governed U.S. actions.⁸² The substantive rules focused on several important issues that have direct parallels in the law of armed conflict.⁸³ For a lethal operation to be approved, the agency that wished to undertake that operation, either the C.I.A. or the Department of Defense, was required to satisfy several important standards.⁸⁴ First, the agency must show that there was a near certainty that a high-value terrorist or other terrorist target who could be lawfully targeted would be present and

⁷⁹ President Barack Obama, Remarks by the President at the National Defense University (May 23, 2013), <https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/remarks-president-national-defense-university>.

⁸⁰ After President Obama's speech at the National Defense University, the White House released a brief document that outlined U.S. policy. *See Press Release, White House, Fact Sheet: U.S. Policy Standards and Procedures for the Use of Force in Counterterrorism Operations Outside the United States and Areas of Active Hostilities* (May 23, 2013), <https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/fact-sheet-us-policy-standards-and-procedures-use-force-counterterrorism>. Eventually, in August 2016, in response to a Freedom of Information Act request from the ACLU, the Department of Justice released a redacted version of the 2013 PPG. *See Charlie Savage, U.S. Releases Drone Strike "Playbook" for Targeting Terrorism Suspects*, N.Y. TIMES, Aug. 6, 2016, at A10. The declassified document available at https://www.justice.gov/oip/foia-library/procedures_for_approving_direct_action_against_terrorist_targets/download.

⁸¹ *See Charlie Savage, Eric Schmitt & Mark Mazzetti, Obama Expands War with Al Qaeda to Include Shabab in Somalia*, N.Y. TIMES, Nov. 17, 2016 (describing Libya's inclusion as an area of active hostilities).

⁸² *See Procedures for Approving Direct Action Against Terrorist Targets Located Outside the United States and Areas of Active Hostilities*, JUSTICE.GOV, (May 22, 2013), https://www.justice.gov/oip/foia-library/procedures_for_approving_direct_action_against_terrorist_targets/download.

⁸³ *Id.*

⁸⁴ *Id.*

that the target's activities posed a continuing, imminent threat to the U.S.⁸⁵ Second, the agency must show that there was a near certainty that non-combatants would not be killed or injured.⁸⁶ Third, the agency must make the case that capture is not feasible.⁸⁷ The fourth standard is that the country in which the operation would take place either cannot or will not effectively address the threat.⁸⁸ Finally, the agency must show that there were no other reasonable alternatives to address the threat.⁸⁹

These standards largely paralleled the rules imposed by the law of armed conflict discussed in detail above. They required those using force to make good-faith efforts to distinguish between lawful combatants and non-combatants, and to avoid operations when the risk of civilian casualties was too high. They required the U.S. to consider less intrusive or violent means of accomplishing the same goals. Taken together, these regulations represented a significant shift in U.S. policy that would, if implemented strictly and in good faith, limit U.S. operations.

ii. The 2017 Principles, Standards, and Procedures

When the Trump Administration came to power in 2017, U.S. policy began to change. Most important for my analysis are the changes the Trump Administration apparently made to the policy framework first laid out in the 2013 PPG.⁹⁰ In early 2017, the Trump Administration implemented its own policies, styled as the Principles, Standards, and Procedures (2017 PSP), to replace the 2013 PPG.⁹¹ The overriding aim of the changes to policy was to simplify the bureaucratic process that drone operators or commanders are required to follow before launching an operation.⁹² To accomplish this goal,

⁸⁵ *Id.*

⁸⁶ *See id.*

⁸⁷ *See id.*

⁸⁸ *See Procedures for Approving Direct Action Against Terrorist Targets Located Outside the United States and Areas of Active Hostilities*, JUSTICE.GOV, (May 22, 2013), https://www.justice.gov/oip/foia-library/procedures_for_approving_direct_action_against_terrorist_targets/download.

⁸⁹ *See id.*

⁹⁰ These changes were reported in the media but no official policy has been released. For a description of the changes, *see* Savage & Schmitt, *supra* note 76.

⁹¹ *See* Charlie Savage & Eric Schmitt, *Trump Poised to Drop Some Limits on Drone Strikes and Commando Raids*, N.Y. TIMES (Sept. 21, 2017) (describing Trump Administration changes to targeting rules).

⁹² *See* Savage & Schmitt, *supra* note 76.

the 2017 PSP made two principal changes to earlier policies.⁹³ First, it replaced the requirement that targets represent a “continuing, imminent threat” to U.S. persons with one that would permit more attacks on low-level targets.⁹⁴ The effect of this would be to allow commanders and drone operators to expand the target pool from those with special skills or in leadership roles to foot soldiers. The second change was to reduce or eliminate the need for high-level review and approval for strikes.⁹⁵ Decision-making authority would be devolved to lower-level officials.

In addition to changing the substantive targeting rules, the Trump Administration also decided to designate more places as “areas of active hostilities,” thus exempting those areas altogether from the restraints imposed

⁹³ There has been a robust debate about these issues among scholars and policymakers. *See, e.g.*, Robert Chesney, *President Trump Ponders Changes to the Lethal Force Policy Constraints: What You Need to Know*, LAWFARE (Sept. 22, 2017), <https://www.lawfareblog.com/president-trump-ponders-changes-lethal-force-policy-constraints-what-you-need-know> (describing differences between Trump and Obama Administration targeting policies); Adriana Edmeades Jones, *Implications of Trump’s New Drone Policy for Countries Assisting the U.S.*, JUST SECURITY (Nov. 13, 2017), <https://www.justsecurity.org/47011/implications-trumps-drone-policy-countries-assisting-u-s/> (*describing ways that U.S. policy affects partner countries in counterterrorism operations*); Ryan Goodman, *Why the Laws of War Apply to Drone Strikes Outside “Areas of Active Hostilities:” (A Memo to the Human Rights Community)*, *Just Security* (Oct. 4, 2017), <https://www.justsecurity.org/45613/laws-war-apply-drone-strikes-areas-active-hostilities-a-memo-human-rights-community/> (arguing that the law of armed conflict rules affects who may be targeted outside areas of active hostilities); Marko Milanovic, *On Whether IHL Applies to Drone Strikes Outside “Areas of Active Hostilities:” A Response to Ryan Goodman*, EJIL: TALK! (Oct. 5, 2017), <https://www.ejiltalk.org/on-whether-ihl-applies-to-drone-strikes-outside-areas-of-active-hostilities-a-response-to-ryan-goodman/> (arguing that the geographic contours of the armed conflict affect targeting rules).

⁹⁴ Savage & Schmitt, *supra* note 76.

⁹⁵ Savage & Schmitt, *supra* note 76.

by policy.⁹⁶ In practice, this means that commanders could launch strikes against individuals they believed to be members of belligerent forces—such as al-Qaeda or al-Shabab—without determining that those individuals posed a threat to Americans or that capturing them was infeasible.

iii. Biden Administration Policy

The Biden Administration has signaled its intentions to undertake a thorough review of the use of drones in counterterrorism operations.⁹⁷ In the meantime, the Obama Administration approach may give some clues as to the eventual policy. The Obama Administration was reluctant to commit large numbers of American troops in conflict areas, preferring to rely on drones and using smaller contingents of U.S. troops in collaboration with local partner forces.⁹⁸ This policy was based on two factors that will also affect the Biden Administration. The first is that there is pressure from the American public and some actors in host countries to reduce U.S. troop numbers. This is particularly true in Afghanistan after the Trump Administration signed an agreement with the Taliban to withdraw American troops. In August 2021, the Biden Administration ordered the withdrawal of all troops from Afghanistan on an accelerated timetable. On August 31, 2021,

⁹⁶ In 2016, the U.S. considered Afghanistan, Iraq, and Syria to be areas of active hostilities and thus exempt from the heightened targeting standards. That list expanded to include at least Somalia and Yemen. *See* OFF. OF THE DIRECTOR OF NAT'L INTEL., SUMMARY OF 2016 INFO. REGARDING U.S. COUNTERTERRORISM STRIKES OUTSIDE AREAS OF ACTIVE HOSTILITIES (Jan. 19, 2017), <https://www.dni.gov/index.php/newsroom/reports-publications/reports-publications-2017/item/1741-summary-of-information-regarding-u-s-counterterrorism-strikes-outside-areas-of-active-hostilities> (stating that Afghanistan, Iraq, and Syria were considered to be areas of active hostilities during 2016); That list expanded to include at least Somalia and Yemen. *See* Charlie Savage & Eric Schmitt, *Trump Eases Rules in Somalia Protecting Civilians in Strikes*, N.Y. TIMES Mar. 30, 2017, at A1 (describing policy changes regarding targeting rules in Somalia); Charlie Savage & Eric Schmitt, *Trump Administration Is Said to Be Working to Loosen Counterterrorism Rules*, N.Y. TIMES (Mar. 12, 2017) (describing changes in targeting rules in Yemen).

⁹⁷ *See* Savage & Schmitt, *supra* note 1 (reporting changes to U.S. policy and the Biden Administration intention to undertake policy review).

⁹⁸ *See* Barack Obama, 44th U.S. President, Remarks by the President at the National Defense University (May 23, 2013), *in* THE WHITE HOUSE OFF. OF THE PRESS SECRETARY, <https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/remarks-president-national-defense-university> (describing use of drones as a way to mitigate risks to U.S. troops while still achieving strategic objectives).

President Biden announced the end of the war in Afghanistan.⁹⁹ ¹⁰⁰ The second factor is that U.S. policymakers have increasingly come to view drones as a lower-cost approach to exerting U.S. influence. Policymakers and advocates have argued that drones are able to accomplish U.S. goals without risking American lives.¹⁰¹ This increased faith in drones and attendant pressure to reduce the use of troops is likely to push the Biden Administration toward a policy that is similar to that of its predecessors. Thus even without specific details of Biden Administration policy, it is reasonable to conclude that drones will remain a substantial, and controversial, part of U.S. counterterrorism strategy.

International and domestic law and U.S. policies place legal limits on how the U.S. may conduct counterterrorism operations. As Part II has shown, it is not enough for the U.S. to assert that its practices are effective. Instead, belligerents, including the U.S. as it pursues terrorists, must comply with the law even if that means foregoing otherwise effective means and methods of attacking suspected terrorists.

II. STUDIES OF THE EFFECTS OF DIRECT ACTIONS

The U.S. drone program has been a significant part of U.S. counterterrorism operations since 2002 and has become one of the most prominent aspects of U.S. policy.¹⁰² Since the U.S. began to use drones to target militants and launch missiles, the program has come under intense scrutiny and criticism. This criticism took several forms, but it centered on

⁹⁹ See Joe Biden, 46th U.S. President, Remarks by President Biden on the End of the War in Afghanistan (Aug. 31, 2021), in THE WHITE HOUSE BRIEFING ROOM, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2021/08/31/remarks-by-president-biden-on-the-end-of-the-war-in-afghanistan/>.

¹⁰⁰ Missy Ryan & Karen DeYoung, *Biden Will Withdraw All U.S. Forces from Afghanistan by Sept. 11, 2021*, WASH. POST (April 13, 2021), https://www.washingtonpost.com/national-security/biden-us-troop-withdrawal-afghanistan/2021/04/13/918c3cae-9beb-11eb-8a83-3bc1fa69c2e8_story.html.

¹⁰¹ See, e.g., Daniel Byman, *Why Drones Work: The Case for Washington's Weapon of Choice*, 92 FOREIGN AFF. 32, 33-34 (2013) (arguing that drone strikes are an effective and relatively low-cost means by which to advance U.S. counterterrorism policy goals).

¹⁰² See, e.g., Christopher J. Fuller, *The Eagle Has Come Home to Roost: The Historical Origins of the CIA's Lethal Drone Program*, 30 INTEL. & NAT'L SEC. 769, 785-788 (2015) (describing history and controversy of U.S. drone use in foreign policy).

three dominant themes: (1) that the program violated international law, (2) that it was immoral because it often killed or wounded civilians, and (3) that it was not the most effective way to achieve the U.S.'s stated policy objectives.¹⁰³ Thus the question of whether missile strikes—particularly those launched from unmanned aerial vehicles—are an effective counterterrorism tool has been of vital concern to scholars, advocates, and policymakers since the U.S. and its allies began to use them in the years after the attacks of September 11, 2001. Determining how best to assess the effectiveness of drone strikes has been a persistent and vexing problem.

There is no clear consensus about what it means for the drone program to be “effective.”¹⁰⁴ When considering the problem in the abstract, counterterrorism analysts and policymakers in the U.S. often argue that the counterterrorism tools are effective if they prevent terrorist attacks in the United States or Europe.¹⁰⁵ This is, of course, a crude measure, important as it is to policymakers. There is no way to determine, for example, which of the many aspects of counterterrorism policy might be responsible for the absence of a large-scale, 9/11-style attack in the U.S. Scholars have instead looked to more precise approaches to determine if particular components of counterterrorism policy are effective at preventing violence in some way. There is a small but growing number of studies that address these questions,

¹⁰³ See, e.g., Sadat, *supra* note 3, at 224-226 (analyzing legal issues with U.S. drone policies and practices); Matt Peterson, *Is Obama's Drone War Moral? The Ethics of Defensive Killing*, THE ATLANTIC (Aug. 18, 2016), <https://www.theatlantic.com/international/archive/2016/08/obama-drone-morality/496433/> (describing debates regarding the morality of U.S. drone strikes in counterterrorism operations); Audrey Kurth Cronin, *Why Drones Fail: When Tactics Drive Strategy*, 92 FOREIGN AFF. 44, 50-51 (2013) (arguing that evidence of the effectiveness of drone strikes is inconclusive at best).

¹⁰⁴ See generally Obama, *supra* note 98 (arguing that drones are effective, in part, because they keep U.S. troops out of harm's way); Max Abrahms & Jochen Mierau, *Leadership Matters: The Effects of Targeted Killings on Militant Group Tactics*, 29 TERRORISM & POL. VIOLENCE 830 (2017) (investigating whether drone strikes that kill militant leaders cause an increase in militant violence); Patrick B. Johnston, *Does Decapitation Work? Assessing the Effectiveness of Leadership Targeting in Counterinsurgency Campaigns*, 36 INT'L SEC. 47 (2012) (investigating whether conflicts end sooner when militant leaders are killed).

¹⁰⁵ See, e.g., White House, Remarks by the President at the National Defense University (May 23, 2013) (noting that drone strikes have prevented attacks against the U.S. homeland), <https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/remarks-president-national-defense-university>.

and it is to these studies that I turn in this part.

The basic research strategy for the empirical studies is similar. Researchers analyze the relationship among the frequency, lethality, and intended targets of militant attacks in some areas before and after missile attacks.¹⁰⁶ In recent years, mostly working with data from the Federally Administered Tribal Areas in Pakistan, researchers have analyzed the relationships between missile strikes and militant attacks.¹⁰⁷ They have asked a series of important questions about whether and how missile strikes affect militant violence. The emerging evidence about the relationship between missile strikes and militant violence addresses questions in three broad categories. First, some of the studies attempt to determine if missile strikes are associated with an increase or decrease in the number of militant attacks. Were there more or fewer militant attacks in the area in the days or weeks after a strike than at other times? Second, some of the studies attempt to determine the extent of the effect of missile strikes on militant violence. These studies have asked a series of related questions. If the number of militant attacks is affected by missile strikes, how long does the effect last? Do missile strikes affect the number of militant attacks only in those areas geographically proximate to the strike, or is their effect more broadly distributed? Do strikes displace militants to other areas, thereby increasing violence in those areas? Third, some of the studies ask what kind of effect missile strikes have on militant violence. These studies ask questions like whether it matters whom the missile strikes target, leaders, or lower-level militants, for example? Do missile strikes affect some kinds of militant attacks more than others? For example, do missile strikes decrease the number of militant attacks on civilians or civilian infrastructure but increase attacks on military personnel or infrastructure?

In this part, I analyze the emerging evidence regarding the effectiveness of missile strikes on militant targets. These studies reveal four main findings, which I discuss in more detail below. Two of those findings should give comfort to proponents of drone strikes, at least with respect to whether strikes decrease militant violence. But, importantly, two findings

¹⁰⁶ See, e.g., Patrick B. Johnston & Anoop K. Sarbahi, *The Impact of U.S. Drone Strikes on Terrorism in Pakistan*, 60 INT'L STUD. QUARTERLY 203, 208 (2016) (describing statistical strategy for empirical study); Johnston, *supra* note 104, at 59-76 (describing research strategy); Mir & Moore, *supra* note 13, at 849 (describing empirical strategy).

¹⁰⁷ See, e.g., Mir & Moore, *supra* note 13, at 849-850 (describing geographic area from which data were analyzed).

suggest that the U.S.'s use of drone strikes may violate international humanitarian law, which every U.S. administration has pledged to follow. First, the studies show that missile strikes are associated with reductions in militant violence, at least in areas near where the missile struck.¹⁰⁸ Second, the reduction in militant violence in the area around the site of the missile strike is apparently not the result of displacement of violence to other nearby areas. Taken together, these findings suggest that drone strikes are accomplishing at least some of the strategic objectives of the U.S.

But there is strong evidence of significant harm to civilians, which renders the programs illegal. The third finding from the new studies is that militant violence after “successful” drone strikes—that is, those that kill an intended militant leader—appear to have the effect of shifting militant violence from military to civilian targets. Civilians may suffer more militant violence after a strike than they did before. The fourth and final finding is both the most tentative at this point and perhaps the most important. The reduction in militant violence after a missile strike is not mostly due to the effects of the strike—that is whether it killed a militant leader or merely disrupted militant planning. Instead the reduction appears to be due in large part to the effects of persistent surveillance and monitoring by drones and quick targeting decisions by the U.S. and its partners may be contributing to the reduction in militant attacks. What is important about this finding is that the surveillance and monitoring is general; it is not limited to militants. Civilians as well as militants are observed by surveillance drones. Civilians as well as militants are subject to electronic monitoring. And there is evidence that the disruptions to the lives of militants—credited with reducing militant violence—are also severely harming civilian populations. Taken together, these findings show at least some of the effects that drone strikes have on civilian populations. If a predictable effect of military action is to make the lives of civilians worse, that action warrants significant scrutiny under the applicable laws of armed conflict.

Before analyzing the findings, it is important to note the limitations of these studies. It is not possible to determine as a matter of scientific certainty whether and how drone strikes affect militant violence, and the authors of the studies do not make this claim. The studies are all interested in determining the relationship between drone strikes and militant violence. They follow the same basic methodology by first attempting to identify a correlation between drone strikes and changes in militant violence. In the main, they do this by using geolocation data about drone strikes—where and

¹⁰⁸ See discussion *infra* Section II.A.

when a strike occurred—and examining the type, targets, and lethality of militant violence before and after the strike. By doing this they are able to find a consistent association between strikes and militant violence. They then investigate whether the actual violence after a strike was more or less than the level of violence that would have been expected in the absence of a strike. This is not, of course, sufficient to support a claim that drone strikes definitively cause an increase or decrease in militant violence. But it is among the best available evidence, and certainly more robust than the evidence put forth by staunchest proponents of drone strikes, who argue that drones are effective because the U.S. homeland has not been attacked. A second limitation is that these studies are not able to examine every area in which the U.S. has used drones since the 9/11 attacks. There are no similar studies on the effect of drone strikes in Yemen or Somalia, for example, places where the U.S. has used drones extensively. Thus, the studies that I analyze may not be generalizable (and the authors do not claim that they are). Again, even with this limitation these studies are among the best available evidence.

A. Drone Strikes Appear to Reduce Militant Attacks

Despite a lack of clarity surrounding what policymakers mean when they argue that drone strikes are an effective tool against potential terrorists, researchers analyzing strikes typically look at whether militant violence increases or decreases in the region around the strike in the weeks or months after a strike.¹⁰⁹ The most basic finding from the recent studies of the effects of U.S. drone strikes is that strikes are associated with an overall decrease in militant violence, at least in the geographic area near the strike. Consider for example one of the most detailed of the recent studies.¹¹⁰ These researchers looked at the effects of drone strikes in the Federally Administered Tribal Areas in Pakistan on militant violence in those areas of Pakistan and nearby areas of Afghanistan during the period January 2007 through September 2011.¹¹¹ In general, the study found that “drone strikes are associated with substantial short-term reductions in terrorist violence.”¹¹² The researchers found that drone strikes are associated with a reduction in militant attacks

¹⁰⁹ See generally Johnston, *supra* note 104 (investigating whether conflicts end sooner when militant leaders are killed); Mir & Moore, *supra* note 13, at 860.

¹¹⁰ See generally Johnston & Sarbahi, *supra* note 106 (analyzing the impact of drone strikes on the incidence of terrorism in Pakistan and finding that drone strikes are associated with a decrease in militant violence, among other findings).

¹¹¹ See Johnston & Sarbahi, *supra* note 106, at 208 (describing statistical strategy for empirical study).

¹¹² Johnston & Sarbahi, *supra* note 106, at 204.

near the strike, and a reduction in the lethality of the strikes that did occur.¹¹³ They also found some evidence, albeit not as strong as that supporting the other findings, that the reduction in militant violence could last for as long as five weeks.¹¹⁴ Other researchers have made similar findings, albeit with some slight differences.¹¹⁵ For example, one study found that drone strikes appear to decrease overall militant violence in Pakistan, with an increase in the first week after the attack and a subsequent diminution in violence in subsequent weeks.¹¹⁶ The same study found that drone strikes in Afghanistan appeared to have little effect on militant violence there.¹¹⁷ A more recent study that examined the effects of drone strikes in the Federally Administered Tribal Areas in Pakistan found that during the years when it operated most actively, the U.S. drone program “corresponds with a reduction in violence on the order of nine to thirteen insurgent attacks per month and fifty-one to eighty-six casualties per month.”¹¹⁸

B. Drone Strikes Do Not Appear to Displace Violence to Other Geographic Areas

One concern with drone strikes is that they might simply displace militant violence from near the area targeted with the drone to another area.¹¹⁹ This is particularly important in counterterrorism operations because terrorist

¹¹³ See Johnston & Sarbahi, *supra* note 106, at 212 (finding that “drone strikes are associated with a reduction in militant violence in the areas where they occur” and are “negatively associated with the lethality ... of militant attacks in these same areas”).

¹¹⁴ See Johnston & Sarbahi, *supra* note 106, at 215 (finding that reductions in militant violence may last for up to five weeks, but the data make “it difficult to make definitive claims about the duration of drones' violence-reducing effects”).

¹¹⁵ See generally David A. Jaeger & Zahra Siddique, *Are Drone Strikes Effective in Afghanistan and Pakistan? On the Dynamics of Violence Between the United States and the Taliban*, 4 CESIFO ECONOMIC STUDIES 667 (2018) (finding, based on empirical examination, that drone strikes appear to reduce militant violence).

¹¹⁶ See *id.* at 695-96 (finding a “vengeance effect in the first week” and a “deterrent/incapacitation effect” thereafter).

¹¹⁷ See *id.* at 695 (finding “there is little impact significant of drone strikes on Taliban attacks in Afghanistan”).

¹¹⁸ Mir & Moore, *supra* note 13, at 846.

¹¹⁹ See generally Austin Long, *Whack-a-Mole or Coup de Grace? Institutionalization and Leadership Targeting in Iraq and Afghanistan*, 23 SECURITY STUD. 471 (2014) (analyzing whether targeting militant leaders with drone strikes has the effect of displacing militant violence).

groups do not respect national borders.¹²⁰ Indeed in 2009 the U.S. appointed a special representative for Afghanistan and Pakistan,¹²¹ recognizing that "Afghanistan and Pakistan now constituted a single theatre of war."¹²² U.S. counterterrorism strategy recognizes that the Taliban and associated forces move from Afghanistan to areas in Pakistan, essentially rendering the border meaningless.¹²³ Thus, the possibility that a terrorist entity with strong roots in multiple places might move when faced with drone strikes in one place was significant.

The risk of displacement poses an obvious strategic problem—merely moving terrorist attacks around is not a productive long-term strategy—and a problem for researchers. If researchers are investigating the effectiveness of drone strikes and notice a reduction in violence in the area of the strike and do not account for the possibility of displacement, they may incorrectly conclude that drone strikes reduce violence when in reality they merely shift it from one place to another.¹²⁴ But researchers have found that this does not

¹²⁰ See, e.g., David Ignatius, *How ISIS Spread in the Middle East*, ATLANTIC MONTHLY, (Oct. 29, 2015)

<https://www.theatlantic.com/international/archive/2015/10/how-isis-started-syria-iraq/412042/> (documenting the movement of ISIS across borders throughout the Middle East).

¹²¹ Glenn Kessler, *Mitchell and Holbrooke to be Named Envoys*, WASH. POST (Jan. 21, 2009) <http://voices.washingtonpost.com/44/2009/01/mitchell-and-holbrooke-to-be-n.html>.

¹²² George Packer, *The Last Mission: Richard Holbrooke's Plan to Avoid the Mistakes of Vietnam in Afghanistan*, THE NEW YORKER (Sept. 21, 2009) <https://www.newyorker.com/magazine/2009/09/28/the-last-mission> (reporting the views of Richard Holbrooke, named the first U.S. Special Representative for Afghanistan and Pakistan).

¹²³ See, e.g., Ishtiaq Ahmad, *The U.S. Af-Pak Strategy: Challenges and Opportunities for Pakistan*, 37 ASIAN AFFAIRS: AN AMERICAN REVIEW 191, 194 (2010) (describing, based on U.S. strategy, that the U.S. Af-Pak strategy ... treats Afghanistan and Pakistan as two countries but one challenge).

¹²⁴ Although the recent empirical evidence finds that there is not a displacement of violence from one geographic area to another, there is some contrary evidence. One report from an advocacy group, based on media report and data on drone strikes finds that militants are displaced by drone strikes and that after they move they engage in violence—both terrorism and conventional crime—in the areas to which they flee to avoid drone strikes. See Wali Aslam, Remote Control Project, *TERRORIST RELOCATION AND THE SOCIETAL CONSEQUENCES OF U.S. DRONE STRIKES IN PAKISTAN* 2-3 (2014).

appear to be the case.¹²⁵ Drone strikes "reduce militant violence in the local areas in which they are conducted" and "in proximate areas."¹²⁶ They concluded that there is "no conclusive evidence that drone strikes cause violence to spill over into neighboring areas."¹²⁷ Thus the reductions in militant violence appear to be caused by reasons other than displacement.

C. Decapitation Strikes Appear to Shift Militant Violence from Military to Civilian Targets

Despite the evidence that drone strikes appear to correspond with a reduction in militant violence, there is countervailing evidence that supports the argument that U.S. tactics may be inconsistent with international humanitarian law. A prominent part of the U.S. drone-based strategy is to target the leadership of terrorist organizations with drone strikes.¹²⁸ Perhaps the most famous example of this is the U.S. attack that killed Osama bin Laden.¹²⁹ Many of the strikes discussed above were strikes designed to kill a terrorist leader, almost all local or regional leaders much less prominent than bin Laden. Researchers have recently turned to the question of whether the targeting of terrorist leaders can be an effective part of counterterrorism efforts.¹³⁰ These studies, using similar but not identical research strategies, have revealed evidence that should be central to any assessment of whether U.S. strategy is consistent with the laws of armed conflict.¹³¹ Drone strikes

¹²⁵ See Johnston & Sarbahi, *supra* note 106, at 214-215 (finding that drone strikes do not displace violence to nearby geographic areas).

¹²⁶ Johnston & Sarbahi, *supra* note 106, at 215.

¹²⁷ Johnston & Sarbahi, *supra* note 106, at 215.

¹²⁸ See, e.g., NATIONAL STRATEGY FOR COUNTERTERRORISM OF THE UNITED STATES OF AMERICA 13, (Oct. 2018) https://www.dni.gov/files/NCTC/documents/news_documents/NSCT.pdf (noting that U.S. strategy is to target "terrorist leaders, operational planners" and others with special expertise); Daniel Byman, *Do Targeted Killings Work?*, 85 FOREIGN AFF. 95, 96 (2006) (noting that the U.S. has adopted a policy of attempting to kill terrorist leaders); Max Fisher, *Does Killing Terrorists Leaders Make Any Difference? Scholars Are Doubtful*, N.Y. TIMES, Aug. 31, 2016, at A3 (describing strategy employed by the U.S. and other states to target terrorist leaders as a way to weaken the organization).

¹²⁹ See Obama, *supra* note 98, (describing successful mission to kill Bin Laden).

¹³⁰ See, e.g., Johnston, *supra* note 104, at 47-48 (describing recent increase in empirical scholarship on targeting terrorist leaders). Johnston also catalogues the few earlier articles that argued that leadership targeting is, or would likely be, ineffective. *Id.*

¹³¹ See generally Anouk S. Rigterink, *The Wane of Command: Evidence on Drone Strikes and Control within Terrorist Organizations*, 115 AM. POL. SCI. REV. 31

that kill terrorist leaders are associated with a shift in militant strategy from using violence that targets military or other government targets to targeting civilians for attacks. The researchers who have looked at this question specifically largely agree on the finding, but they offer a range of theories to explain it. Some suggest that those militants who take over after a leader is killed are less able to control their underlings, leading to more indiscriminate attacks against civilians.¹³² Others suggest that when leaders are killed, lower-level militants take over and they have weaker incentives to respect the civilian population and are less likely to view local civilians as a potential support base.¹³³ Regardless of the exact mechanism, there is robust evidence indicating that there has been a significant rise in militant violence against civilians as a result of U.S.-led decapitation strikes.¹³⁴

(2021) (finding that drone strikes that kill a terrorist leader are associated with an increase in militant violence relative to strikes that fail to kill a leader); Abrahms & Potter, *supra* note 12 (finding that militant groups whose leadership is disrupted by strikes are more likely to target civilians when compared to those whose leadership is more stable); Abrahms & Mierau, *supra* note 104 (finding that after a strike killing a leader, militant groups become less discriminate in their violence and therefore more likely to target civilians). One study examined leadership strikes albeit with a different focus and concluded that killing leaders appears to be associated with a shorter life expectancy for terrorist groups. Bryan C. Price, *Targeting Top Terrorists: How Leadership Decapitation Contributes to Counterterrorism*, 36 INT'L SECURITY 9, 43-44 (2012). Price did not examine the effects of leadership strikes on militant violence against civilian populations.

¹³² . See *How Leadership Decapitation Contributes to Counterterrorism*, 36 INT'L SECURITY 9, 48 (2012) (suggesting that killing terrorist leaders can undermine terrorist leadership and result in new leaders who are less able to control other militants).

¹³³ See Abrahms & Potter, *supra* note 12, at 329 (finding that "successful decapitation strikes are associated with both an increase in civilian targeting and a decrease in military targeting, though in different time frames"). Abrahms and Potter explain their findings in part by suggesting that lower-level militants have lower incentives to respect civilians. Abrahms & Potter, *supra* note 12, at 313. The authors of a separate study found that decapitation strikes were associated with shift toward relatively more militant violence against civilians and away from military targets. Abrahms & Mierau, *supra* note 104, at 831-32. The most plausible explanation, they argued, was that decapitation strikes create "leadership deficits that empower lower-level members of the organization with inferior civilian restraint." Abrahms & Mierau, *supra* note 104, at 832.

¹³⁴ See Abrahms & Mierau, *supra* note 104, at 842 (finding increase in militant violence against civilians relative to violence against military targets after a decapitation strike).

This finding also helps to make sense of a study which found that targeting leaders can reduce militant violence.¹³⁵ Importantly, that study did not consider whether militants shift their focus from military to civilian targets after a strike that kills a militant leader.¹³⁶ Studies that look specifically at the problem of militants shifting their focus from military to civilian targets help to explain this seeming outlier result.¹³⁷ Because the drone campaign is associated with a decrease in militant violence against military targets, including members of the U.S. military and its allies, some researchers and policymakers might conclude that such strikes were effective. The best analysis of this issue comes from research by Max Abrahms and Philip B.K. Potter.¹³⁸ Abrahms and Potter find that because drone strikes limit "attacks on coalition and government forces, at least in the short term," leaders and researchers such as Johnston might conclude that "decapitation strikes may be strategically effective."¹³⁹ They note that the "corresponding increase in civilian targeting is clearly undesirable from a normative perspective,"¹⁴⁰ but they do not analyze the implications of this finding under international humanitarian law.

***D. Persistent Surveillance and Monitoring Necessary for
Drone Programs Appear to Cause Significant Social Disruption***

Drone strikes are only possible with significant infrastructure to support them. Typically drone strikes happen only after substantial surveillance and monitoring to identify targets and attempt to ensure that civilian casualties are minimized.¹⁴¹ One of the most important findings from a new empirical study is that this monitoring and surveillance infrastructure appears to be responsible for most of the decrease in militant violence. Thus it appears that it is not the strikes themselves—even those that kill militants—

¹³⁵ See Johnston, *supra* note 106, at 77 (finding that "neutralizing insurgent leaders has a substantively large and statistically significant effect on numerous metrics of counter militancy effectiveness").

¹³⁶ See Johnston, *supra* note 106 at 59-76 (describing research strategy).

¹³⁷ See generally Rigterink, *supra* note 131 at 31, (finding that drone strikes that kill a terrorist leader are associated with an increase in militant violence relative to strikes that fail to kill a leader); Abrahms & Potter, *supra* note 12, at 311 (finding that militant groups whose leadership is disrupted by strikes are more likely to target civilians when compared to those whose leadership is more stable).

¹³⁸ See Abrahms & Potter, *supra* note 12, at 331.

¹³⁹ Abrahms & Potter, *supra* note 12, at 331.

¹⁴⁰ Abrahms & Potter, *supra* note 12, at 331.

¹⁴¹ See, e.g., Mir & Moore, *supra* note 13, at 848-49 (describing surveillance and intelligence infrastructure of U.S. drone program).

that are responsible for decreasing militant violence. Instead, what decreases militant violence appears to be all of the behavioral changes produced by the monitoring and surveillance infrastructure. These findings have implications for whether the U.S. and its partners have been complying with the laws of armed conflict in areas in which drone strikes are an important part of counterterrorism operations.

These findings come from a study by Asfandyar Mir and Dylan Moore that complements studies done by several other researchers.¹⁴² Mir and Moore examined in detail the rates of violence in specific parts of the Federally Administered Tribal Areas during the mid-2000s. This period is significant in part because there was substantial militant violence at that time.¹⁴³ It is also important because the U.S. had obtained, through agreement with the government of Pakistan, the legal right to control the airspace above Pakistan. U.S. planners and operators were able to engage in persistent, pervasive surveillance of the population in those parts of Waziristan for several years, all with the acquiescence of the government of Pakistan. This is important because it suggests that other areas in which the U.S. is able to operate with significant control of the airspace—including, at different times, Afghanistan, Somalia, and Yemen—would be subject to similar dynamics.

In their study, Mir and Moore were able to exploit an agreement between the U.S. and the government of Pakistan that produced a kind of natural experiment. In North Waziristan, part of the FATA, the U.S. government obtained permission to operate counterterrorism operations freely.¹⁴⁴ In other parts of the FATA, the U.S. did not operate in a similar way. Importantly, the two areas were very similar to each other in terms of demographics and militant activity, enough to permit the areas outside of Waziristan to serve as a kind of control group for researchers looking back at militant violence and its possible causes. Mir and Moore found that, overall, the drone program substantially reduced militant attacks in the areas under

¹⁴² See, e.g., Mir & Moore, *supra* note 13, at 860 (summarizing findings and describing relationship between their study and previous work).

¹⁴³ See, e.g., Mir & Moore, *supra* note 13, at 849-857 (describing militant violence in area under study).

¹⁴⁴ See Mir & Moore, *supra* note 13, at 849 (describing empirical strategy of comparing militant attack data in North Waziristan, where the U.S. controlled the airspace and engaged in drone strikes, to other parts of the Federally Administered Tribal Areas, where the U.S. did not operate in a similar way).

study.¹⁴⁵

In addition to finding that militant violence went down in response to drone strikes—a finding that other researchers have also made¹⁴⁶—Mir and Moore examined the reasons why militant violence likely decreased.¹⁴⁷ They attempted to disaggregate the effects of drone strikes on militant activity, which they called kinetic effects, from other reasons for observed decreases in militant violence, which they called anticipatory effects.¹⁴⁸ They reasoned that the total effect of the drone program "need not be composed of simply the aggregation of short-run responses to individual strikes."¹⁴⁹ The anticipatory effects were caused by several factors, two of which are particularly important.¹⁵⁰ First, the program included widespread, pervasive surveillance of the population.¹⁵¹ Second, the U.S. government agreement with Pakistan allowed the U.S. to make decisions about strikes very quickly in response to surveillance and intelligence.¹⁵² Based on both quantitative and qualitative research,¹⁵³ they found that these two components of the drone program were particularly powerful. When they examined more closely the likely causes of the reduction in militant violence, they found that almost three-fourths of the total drop in militant violence was caused by the

¹⁴⁵ See Mir & Moore, *supra* note 13, at 846 (finding that the "drone program corresponds with a reduction in violence on the order of nine to thirteen insurgent attacks per month and fifty-one to eighty-six casualties per month").

¹⁴⁶ See Mir & Moore, *supra* note 13, at 858 (describing the research strategies they adopted to go further than previous researchers to examine root causes for decreases in militant violence).

¹⁴⁷ See Mir & Moore, *supra* note 13, at 858 (describing efforts to "probe the mechanisms mediating the negative association between the U.S. drone program and insurgent violence documented" in their study).

¹⁴⁸ See Mir & Moore, *supra* note 13, at 858 (describing efforts to distinguish effect of strikes from other reasons for reductions in violence).

¹⁴⁹ See Mir & Moore, *supra* note 13, at 858.

¹⁵⁰ See Mir & Moore, *supra* note 13, at 859 (describing anticipatory effects associated with drone program).

¹⁵¹ See Mir & Moore, *supra* note 13, at 859 (describing U.S. government's ability to undertake widespread surveillance and intelligence gathering in the target areas during the relevant time period).

¹⁵² See Mir & Moore, *supra* note 13, at 859 (describing U.S. agreement with Pakistan during the relevant time period).

¹⁵³ See Mir & Moore, *supra* note 13, at 859 (describing qualitative evidence used to supplement quantitative research).

anticipatory effects.¹⁵⁴

The reasons for this are particularly important to my argument. Mir and Moore found, based on both quantitative and qualitative evidence, that surveillance, rapid exploitation of intelligence, and occasional strikes worked together to "substantially increase insurgents' perceptions of the risks associated with activities they believe might precipitate strikes."¹⁵⁵ They found that the program, as a whole, was associated with "restricted movement, constrained communication, and compromised intragroup trust."¹⁵⁶

These findings are noteworthy because there is no reason to suspect that these effects are limited to militants. One of the hallmarks of the current era of counterterrorism operations is that militants are typically fully integrated into the civilian population.¹⁵⁷ Counterterrorism operations that affect militants inevitably affect local civilians as well. From the perspective of the local population, pervasive surveillance affects them as much as it affects militants. Similarly, if militants are re-calculating their perception of what might produce a drone strike, then civilians were likely to be doing the same calculation. Perhaps most troubling is the finding that intragroup trust is decreased by the program as a whole. When civilian populations are struggling to live with the effects of counterterrorism operations, bonds of family trust and support are likely to be more important than at any other time. Indeed, Mir and Moore themselves acknowledge the morally complex nature of their findings. They note that their "work suggests—perhaps troublingly—that the U.S. drone program in Pakistan undermined the insurgency despite harming civilians."¹⁵⁸ Their observation that "strategic gains are possible even when civilians are harmed"¹⁵⁹ should be important to policymakers for moral reasons, but it is highly relevant to the legal evaluation of the program.

¹⁵⁴ See Mir & Moore, *supra* note 13, at 859 ("[A]nalysis suggests that nearly 75 percent of the violence reduction is associated with the drone program period without airstrikes and about 25 percent is associated with aggregated effects of individual strikes").

¹⁵⁵ See Mir & Moore, *supra* note 13, at 859.

¹⁵⁶ See Mir & Moore, *supra* note 13, at 847.

¹⁵⁷ See Ganesh Sitaraman, *Counterinsurgency, the War on Terror, and the Laws of War*, 95 VA. L. REV. 1745, 1758 (2009) (describing mixing of civilian and militant populations).

¹⁵⁸ Mir & Moore, *supra* note 13, at 860.

¹⁵⁹ Mir & Moore, *supra* note 13, at 860.

III. EVIDENCE OF TERRORIZING EFFECTS ON CIVILIANS

Drone strikes affect civilians and militants alike.¹⁶⁰ Mir and Moore's findings regarding the effects of the drone program on civilians are far from the only findings on this issue. There have been many other studies of the ways that counterterrorism operations affect civilians. While it is beyond the scope of this Article to fully analyze these reports, it is important to summarize some of their key findings. For the purposes of my argument, what matters most is that these reports are entirely consistent with Mir and Moore's findings: the U.S. drone program substantially disrupts the lives of affected populations, and this disruption is not limited to those civilians and militants who are killed or wounded by drone strikes.

The study by Mir and Moore argues that the effects of the drone program—including persistent surveillance, quick decision-making and targeting, and missile strikes—degrade militant organizations by affecting them in three principal areas: "movement, communication, and trust."¹⁶¹ Mir and Moore focused their research on how these issues affected militant groups, but there is nothing in their research to suggest that only militants are affected. Indeed, there is substantial evidence, discussed below, to support the notion that civilians are indeed deeply affected in the same ways.

Before moving on, it is important to note that there is also nothing in the logic of Mir and Moore's interpretation of their own evidence that would suggest that civilians are somehow exempt from the effects of the drone program. The U.S. drone program, as described in Mir and Moore's study, relies on pervasive surveillance of the entire population.¹⁶² Surveillance is not limited to militants; the entire population is under surveillance. Thus civilians living under that surveillance regime know that their communications are monitored. Even if civilians are not planning militant attacks, persistent surveillance of personal communications is likely to chill speech and limit how all members of the community interact. Further, the reason for militants

¹⁶⁰ See, e.g., Fotini Christia, et al., *The Effect of Drone Strikes on Civilian Communication: Evidence from Yemen*, POLITICAL SCIENCE RESEARCH AND METHODS, 2020, at 1, 2 (finding, based on analysis of cell phone data communications patterns that drone strikes in Yemen “appear to have a wider ripple effect on the civilian population”), <https://www.cambridge.org/core/journals/political-science-research-and-methods/article/effect-of-drone-strikes-on-civilian-communication-evidence-from-yemen/38480475B14669666FEC6C72BE93BD8A>.

¹⁶¹ Mir & Moore, *supra* note 13, at 859.

¹⁶² See discussion *infra* Section III.C.

to curtail their movements appears to be two-fold, as discussed in detail above.¹⁶³ Because of its extensive surveillance capabilities, the U.S. surveillance and drone program was able to process information quickly and turn intelligence into action more quickly than would otherwise have been possible. Thus militants, and civilians, never knew when or where the next drone strike would happen. It is therefore not surprising that militants would curtail their movements under these conditions. And there is no reason to conclude that civilians would not be similarly affected. Finally, the breakdown in trust and social bonds that affected militant groups likely also affected the civilian population. From the civilian perspective, drone strikes would appear random; civilians would have no idea when or where the next strike might occur. Lack of trust hampered the ability of militants to plan and execute attacks. With civilians, the effects would be felt in their ordinary lives: less socializing, weaker community ties, and an impaired ability to participate in necessary social rituals like funerals and weddings.

In this part, I survey the evidence demonstrating that all of the issues that Mir and Moore describe as possibilities in their research are borne out by other studies. There is evidence of the ways that civilians are forced to curtail their movements because of counterterrorism operations. Similarly, civilian communication is affected, making it more difficult for people to coordinate ordinary activities. Perhaps the most significant consequences are those that affect community trust. This appears to occur in several ways. Because of persistent surveillance and seemingly random strikes, civilians are unable to engage in the kinds of trust-building and trust-sustaining activities necessary for healthy communities. In addition, because strikes are undertaken quickly in response to intelligence that civilians do not have access to, it is difficult for civilians to know who is safe to be around and where it is safe to work or engage in community activities. Finally, communities are affected because the trauma associated with strikes and surveillance is cumulative. Individuals are affected by what happens to neighbors and close family members. And because of the opacity of counterterrorism decision-making and the suddenness of strikes, members of the community do not know when or if they can relax their vigilance.

A. Curtailment of Movement

The U.S. drone program has a substantial, harmful effect on civilian movement at very basic levels. In a study that relied on structured interviews of Afghans who were living in or had lived in areas subjected to "drone

¹⁶³ See discussion *supra* Section II.D.

surveillance and bombardment," researchers found that civilians suffered significant consequences.¹⁶⁴ In that study, researchers found that movements as simple as attempting to irrigate crops were curtailed.¹⁶⁵ Many young men were farmers who were responsible for ensuring that their crops were adequately irrigated. Because they shared an irrigation system, some farmers were required to irrigate their crops at night to ensure that all farmers had access to water. Because of the U.S. drone surveillance and strikes, young farmers were no longer willing to move about at night because they were required to use flashlights to operate the irrigation equipment and they feared that the flashing lights might trigger a drone strike.¹⁶⁶ Thus the drone program affected something as basic as the ability to grow adequate crops. And the effect was caused not by missile strikes alone but also by farmers' recognition that their movements would be monitored and that the U.S. could move quickly to strike once they observed seemingly anomalous behavior like a flashlight beam in a field at night.

The U.S. drone program has affected movement in other ways as well. In a separate study, based on structured interviews with local people living in affected communities in Pakistan,¹⁶⁷ researchers found that counterterrorism operations, including surveillance and missile strikes, had significant consequences for civilians.¹⁶⁸ Because of the combined effects of counterterrorism operations and militant attacks, places in Pakistan had become untenable for civilians, displacing many families.¹⁶⁹ U.S. drone strikes appear to have affected the movement of public health workers

¹⁶⁴ See Alex Edney-Browne, *The Psychosocial Effects of Drone Violence: Social Isolation, Self-Objectification, and Depoliticization*, 40 POL. PSYCH. 1341, 1343 (2019) (describing methodology of using structured interviews to discern the effects of drone surveillance and drone strikes on the affected civilian population).

¹⁶⁵ See *id.* at 1350 (describing issues with community irrigation scheme).

¹⁶⁶ See *id.* at 1350-51 (describing effect of drone program on farmers' ability to use irrigation system to full capacity).

¹⁶⁷ See Aqil Shah, *Do U.S. Drone Strikes Cause Blowback? Evidence from Pakistan and Beyond*, 42 INT'L SEC. 47, 54 (2018) (describing interview methodology). The research question in Shah's study was whether U.S. counterterrorism operations contributed to an increase in the number of people who became militants or engaged in violence. *Id.* at 48-49. The study found that U.S. operations did not appear to have this effect. *Id.* at 49. Most relevant for the purposes of this Article is what else the study revealed, discussed above.

¹⁶⁸ See *id.* at 54 (finding that "virtually every family" in the affected area had been negatively affected by the conflict).

¹⁶⁹ See *id.* at 56 (finding, based on interviews, that many civilians had experienced some displacement as a result of militant attacks and counterterrorism operations).

attempting to undertake a polio vaccination campaign in Pakistan during the height of U.S. counterterrorism operations in that country, thereby disrupting the public health campaign and hindering the eradication effort.¹⁷⁰ Although the precise mechanism by which this occurred is difficult to discern, it appears that at least part of the reason for the disruption was the difficulty that public health workers had in moving around the country.¹⁷¹ Finally, a report by the United Nations Special Rapporteur on the Promotion and Protection of Human Rights and Fundamental Freedoms while Countering Terrorism found that counterterrorism practices have contributed to "geographical restraints on movement" and "limitations on visits to houses of worship," among other things.¹⁷²

B. Disrupted Communication

One of the purposes of counterterrorism operations is to disrupt the ability of militants to communicate with each other. The goal is to hinder their ability to plan and execute militant attacks.¹⁷³ These efforts also significantly affect civilians as well. In the study based on interviews with Afghans living in affected communities described above, researchers found that pervasive surveillance was especially corrosive to communication among civilians.¹⁷⁴ Researchers found that civilian fear of "drone surveillance provokes people to self-police their behaviors and social activities," which has the effect of devaluing "personal and socio-cultural traits previously valued in the

¹⁷⁰ See Jonathan Kennedy, *How Drone Strikes and a Fake Vaccination Program Have Inhibited Polio Eradication in Pakistan: An Analysis of National Level Data*, 47 INT'L J. HEALTH SERVS. 807, 819 (2017) (finding, based on empirical study, that "drone strikes have disrupted polio eradication efforts in Pakistan").

¹⁷¹ See *id.* at 809 (describing difficulties in moving around the country as militants responded to an increase in U.S. drone strikes).

¹⁷² See Fionnuala Ni Aolain (Special Rapporteur on the Promotion and the Protection of Human Rights and Fundamental Freedoms While Countering Terrorism), Human Rights Council (OHCHR), *Human Rts. Impact of Counter Terrorism & Countering (Violent) Extremism Pol'ys & Pracs. on the Rts. of Women, Girls & the Fam.*, ¶ 25 U.N. Doc. A/HRC/46/36 (Jan. 22, 2021) (describing effects of counterterrorism practices on civilians in affected areas).

¹⁷³ See, e.g., Megan Smith & James Igoe Walsh, *Do Drone Strikes Degrade Al Qaeda? Evidence from Propaganda Output*, 25 TERRORISM & POL. VIOLENCE 311, 311-12 (2013) (describing U.S. strategy of using drone strikes to degrade capacity of terrorist groups to communicate, plan, and organize their operations).

¹⁷⁴ Edney-Browne, *supra* note 164, at 1350.

community."¹⁷⁵ That occurred largely because "Afghan people are frequently made to think about how they are perceived by Americans watching them through drone surveillance cameras."¹⁷⁶ Even in-person communications and socializing is curtailed.¹⁷⁷ Neighbors are less willing to "cook dinners for one another or stay over at a friend's or relative's house," a practice common when community members lose a loved one.¹⁷⁸

C. Erosion of Trust and Community Cohesion

The most profound effect of U.S. pervasive surveillance and missile strikes—apart from civilian deaths—is likely the erosion of trust and cohesion within communities. Perhaps most simply, living with the threat of a drone strike or the knowledge that communications are monitored is stressful. Researchers in the study examining the U.S. pervasive surveillance and missile program in Pakistan described above found that, for people in affected communities, "drones do indeed create stress and anxiety, especially among children."¹⁷⁹ Researchers for an advocacy group interviewed community members in Pakistan who described their experiences witnessing missile strikes and the deaths of their loved ones.¹⁸⁰ Children and adults described the trauma of seeing the deaths of family members and the way that affected their ability to continue their lives in their villages.¹⁸¹

There are a number of mechanisms by which trust and cohesion are eroded. Part of the problem is that culturally-important rituals associated with religious observance, marriage, mourning, and the like are curtailed by pervasive surveillance and the threat of missile strikes.¹⁸² Without such social rituals, the social fabric of the community is weakened. Another part of the

¹⁷⁵ Edney-Browne, *supra* note 164, at 1350

¹⁷⁶ Edney-Browne, *supra* note 164, at 1350

¹⁷⁷ Edney-Browne, *supra* note 164, at 1350 (finding that affected civilians had reduced in-person communication and socializing).

¹⁷⁸ Edney-Browne, *supra* note 164, at 1350

¹⁷⁹ Shah, *supra* note 167, at 57.

¹⁸⁰ See generally AMNESTY INT'L, "WILL I BE NEXT?" U.S. DRONE STRIKES IN PAKISTAN (2013) (documenting civilian casualties from U.S. drone strikes in Pakistan).

¹⁸¹ *Id.* at 18-23 (describing specific cases of missile strikes killing civilians and the effects of such casualties).

¹⁸² Edney-Browne, *supra* note 164, at 1347 (finding that "fear of indiscriminate bombing had also led to the avoidance and sometimes discontinuation of communal activities and traditions. Festivities (such as Eid festival and wedding parties), funerals, and local political meetings have been affected").

problem is that ordinary, day-to-day socializing is greatly reduced, thereby reducing opportunities for social support or trust-building. Researchers in Afghanistan found that, in response to U.S. pervasive surveillance and missile strikes, "young men in the community have stopped socializing outside in the evenings" for fear of missile attack.¹⁸³ Taken together, the absence of these necessary components of social life erode community trust and make the community itself weaker.

IV. IMPLICATIONS

The implications of these findings for the legal assessment of U.S. policy are significant. As the Biden Administration shapes its policies, it is in a position that the Obama Administration was not: it has more evidence of the real consequences of drone strikes on civilian populations in conflict areas. The Biden Administration is also confronting a new threat landscape. With the U.S. withdrawal from Afghanistan, the U.S. is no longer able to use conventional forces there. Instead, the U.S. will be relying on drones and special operations forces as it does in Libya, Somalia, Syria, and elsewhere.¹⁸⁴ If the Biden Administration is as dedicated to complying with international law as it has indicated, this new evidence should be cause for reconsideration of using drones as a principal weapon in counterterrorism operations when the targets are living among civilians.

But even with this new evidence, there are still significant issues regarding the use of drones in counterterrorism operations. In this part, I highlight three important issues. First, there is still no accepted definition of what it means for a drone strike, or the strategy of using drones to target suspected militants, to be "effective." Second, there is no convincing evidence documenting the amount or types of adaptive behavior that militants engage in. Put differently, information about a change in the frequency of militant attacks after a missile strike does not provide any nuanced insight into how militants have changed their behaviors. Third, there is no consensus among policymakers about the kinds or amount of evidence necessary to change policy. This means that some kinds of evidence, such as qualitative reports about civilian experiences, are undervalued and other kinds of

¹⁸³ Edney-Browne, *supra* note 164, at 1349.

¹⁸⁴ Indeed, the U.S. launched a drone strike in Afghanistan as U.S. forces were withdrawing. See Matthieu Aikins & Najim Rahim, *Afghan Family Says Errant U.S. Missile Killed 10, Including 7 Children*, N.Y. TIMES, Sept. 21, 2021 (describing U.S. air strike on vehicle erroneously suspected of containing a bomb that resulted in civilian casualties).

evidence, such as data about how often missiles hit their intended targets, are overvalued.

It is perhaps surprising that almost 20 years into the post-9/11 era there remains no consensus of understanding what it means for drone strikes to be effective. There are at least three possible definitions, each of which can find some support in reports and statements from policymakers and advocates. First, some argue that drone strikes are effective because they kill suspected militants or militant leaders.¹⁸⁵ This assertion certainly appears to be true. For example, by one reliable estimate, more than 2,000 suspected militants have been killed by drone strikes in Pakistan since the beginning of counterterrorism operations.¹⁸⁶ The same source estimates that more than 1,000 suspected militants have been killed in Yemen in the same time period.¹⁸⁷

That suspected militants are killed is surely true, but it is not the only definition of effectiveness put forward by policymakers. Others argue that drone strikes are meant to protect the U.S. homeland by eliminating potential threats to it.¹⁸⁸ This understanding of effectiveness relies on the assertion that there have been no successful, externally-planned attacks on the U.S. homeland since the 9/11 attacks.¹⁸⁹ The problem with this definition is that it

¹⁸⁵ See generally Byman, *supra* note 101 (advancing various arguments in support of drone strikes); President Barack Obama, Remarks by the President at the National Defense University (May 23, 2013) (transcript available at Off. of the Press Sec'y) ("Dozens of highly skilled al Qaeda commanders, trainers, bomb makers and operatives have been taken off the battlefield.") <https://obamawhitehouse.archives.gov/the-press-office/2013/05/23/remarks-president-national-defense-university>.

¹⁸⁶ See Peter Bergen *et al.*, *America's Counterterrorism Wars*, NEW AMERICA FOUNDATION (estimating 2366-3702 total deaths, with 245-303 being civilians) <https://www.newamerica.org/international-security/reports/americas-counterterrorism-wars/the-drone-war-in-pakistan>.

¹⁸⁷ See *id.* (estimating 1378-1775 total deaths, with 115-149 being civilians)

¹⁸⁸ See, e.g., President Barack Obama, Remarks by the President on the Administration's Approach to Counterterrorism (Dec. 6, 2016), (noting that U.S. counterterrorism strategy, including the use of drone strikes, was designed to protect the U.S. homeland); David A. Jaeger & Zahra Siddique, *Are Drone Strikes Effective in Afghanistan and Pakistan? On the Dynamics of Violence Between the United States and the Taliban*, 4 CESIFO ECON. STUDIES 667, 668 (2018) (noting that U.S. strategy is designed to protect the U.S. homeland and protect U.S. forces stationed abroad).

¹⁸⁹ See Cronin, *supra* note 101, at 48-49 (noting arguments by U.S. policymakers that U.S. drone strikes have prevented militant attacks in the U.S.).

asserts a causal relationship between drone strikes and a lack of attacks that may have no basis in fact. There have been myriad changes in U.S. policies to make it more difficult to travel to the U.S., communicate without detection, provide financing to terrorists, or give any kind of support to suspected terrorists.¹⁹⁰ It is simply not credible to assert that drone strikes are effective because there have not been attacks against the U.S. homeland.

Related to both of these issues lies a separate but equally important problem. Most drone strikes in Pakistan and Afghanistan, where the most strikes have been launched, appear to have targeted low-level militants. The targets are not high-level planners or militants who are thought to be targeting the U.S. Instead, they are mostly a threat to the countries in which they are operating or to foreign troops (including U.S. troops) operating in those places.¹⁹¹ Even assuming that killing suspected militants using drones has a protective effect, it is not at all clear if the effect is to make the U.S. or Waziristan safer.

The emerging evidence about drone strikes has revealed that suspected militants make some changes to their behavior after the strikes, but what is known about these behavioral changes is limited. There is some evidence, for example, that militant attacks after drone strikes are less

¹⁹⁰ See, e.g., WILLIAM J. KROUSE, CONG. RSCH. SERV., R42336, TERRORIST WATCH LIST SCREENING AND BACKGROUND CHECKS FOR FIREARMS, 5-18, (2013) (describing changes to U.S. gun laws and various watchlists); LEGAL SIDEBAR: ANTI-TERRORIST/ANTI-MONEY LAUNDERING INFORMATION-SHARING BY FINANCIAL INSTITUTIONS UNDER FINCEN'S REGULATIONS, CONG. RSCH. SERV (2014) (<https://sgp.fas.org/crs/terror/fincen.pdf>) (describing Department of Treasury's financial crimes enforcement laws targeting terrorism financing); EDWARD C. LIU, CONG. RSCH. SERV., R44457, SURVEILLANCE OF FOREIGNERS OUTSIDE THE UNITED STATES UNDER SECTION 702 OF THE FOREIGN INTELLIGENCE SURVEILLANCE ACT, (2016) (describing U.S. government powers to monitor communications in counterterrorism programs).

¹⁹¹ See, e.g., Peter Bergen & Katherine Tiedemann, *Washington's Phantom War: The Effects of the U.S. Drone Program in Pakistan*, FOREIGN AFF. (July/Aug. 2011) <https://www.foreignaffairs.com/articles/pakistan/2011-07-01/washingtons-phantom-war> (reporting that the "majority of those killed" in drone strikes "are not important insurgent commanders but rather low-level fighters"); Michael J. Boyle, *The Costs and Consequences of Drone Warfare*, 89 INT'L AFF. 1, 7, 9 (2013) (describing U.S. strikes against low-level militants, not those with greater international capacity).

targeted or focused.¹⁹² The evidence suggests that militants increase the frequency of attacks on civilian targets—attacks which take less planning and operational expertise—and decrease attacks on government targets or other militants because of those attacks.¹⁹³ Although there is no direct evidence suggesting why, researchers speculate that this may occur because attacks on civilians are easier to carry out with minimal leadership and direction, while attacks on hardened targets require more planning.¹⁹⁴ Another example comes from evidence that militant leaders might (or should be encouraged to) modify their use of electronic communications after drone strikes.¹⁹⁵ Again, there is no direct evidence of whether this happens, but one hypothesis is that militants assume that their use of electronic communications makes them easier to track and target.¹⁹⁶ Whether these behavioral changes are actually occurring is less important than the fact that policymakers and researchers do not have a better understanding of the consequences of their actions. One of the bedrock principles of international humanitarian law is military necessity, which requires that attacks must be intended to defeat the adversary militarily.¹⁹⁷ Without a clear understanding of whether and how their attacks affect their adversaries, the necessity analysis required by international humanitarian law cannot be done.

A final issue raised by the new empirical studies is that there is no agreed-upon standard of evidence necessary to change policy. This is not

¹⁹² See e.g., Abrahms & Potter, *supra* note 12, at 328 (describing finding that after a drone strike, militant groups may engage in “indiscriminate attacks” because of the death of a militant leader).

¹⁹³ See, e.g., Abrahms & Mierau, *supra* note 104, at 942 (finding an increase in violence against civilians as a result of U.S.-led drone strikes because militant groups become less discriminate in their attacks and redirect violence from military to civilian targets).

¹⁹⁴ See e.g., Abrahms & Potter, *supra* note 12, 329-31 (hypothesizing that increase in indiscriminate attacks against civilians may be due to the difficulties of attacking hardened military targets and the relative ease of attacking civilians).

¹⁹⁵ Shah, *supra* note 167, at 56.

¹⁹⁶ In fact, the U.S. was tracking mobile phones and using the location of the cell phone for targeting. See PHILLIP BUMP, *How the NSA is Using Cell Phone Data to Drone Civilians (In Pakistan)*, THE ATLANTIC, July 22, 2013.

¹⁹⁷ Christopher Greenwood, *Historical Development and Legal Bases*, in HANDBOOK OF HUMANITARIAN L. IN ARMED CONFLICTS, 1, 30-33, (Dieter Fleck ed., Oxford Univ. Press 2nd ed. 1995) (describing the principle of military necessity, including its limits).

purely a problem of epistemology or other philosophical issues.¹⁹⁸ Instead it is an evidence problem. The U.S. and its allies assert that their drone strikes fully comply with the international humanitarian law principles of distinction, necessity, and proportionality.¹⁹⁹ These assertions continue no matter how many civilians are killed and no matter what kind of evidence is presented to challenge those assertions. Advocacy groups have long documented the number of civilians killed by drone strikes. Although it is impossible to arrive at a precise count, the number is in the thousands by most estimates.²⁰⁰ Human rights groups have compiled reports full of descriptions, based on eyewitness accounts of survivors, of the devastating effects of drone strikes on civilian populations.²⁰¹ These effects include deaths, of course, but also many other consequences such as disruptions in the daily lives of civilians,

¹⁹⁸ See generally RICHARD RORTY, *WHAT'S THE USE OF TRUTH?* (2007) (arguing that notions of "truth" are outmoded).

¹⁹⁹ See Harold Hongju Koh, Legal Adviser, U.S. Dep't of State, *The Obama Administration and International Law*, Address at Annual Meeting of the American Soc'y of Int'l L. (Mar. 25, 2010) (transcript available at U.S. Dep't of State) (describing U.S. policy of complying with the international law of armed conflict); Brian Egan, Legal Adviser, U.S. Dep't of State, *International Law, Legal Diplomacy, and the Counter-ISIL Campaign*, Address at the Annual Meeting of the American Soc'y for Int'l L. (Apr. 1, 2016) (transcript available at U.S. Dep't of State); Paul C. Ney, General Counsel, U.S. Dep't of Defense, *Legal Considerations Related to the U.S. Air Strike Against Qassem Soleimani*, Address at B.Y.U L. Sch. (Mar. 4, 2020).

²⁰⁰ The Bureau of Investigative Journalism maintains a comprehensive database of casualties caused by drone strikes in Afghanistan, Pakistan, Somalia, and Yemen. See *Drone Database*, THE BUREAU OF INVESTIGATIVE JOURNALISM, <https://www.thebureauinvestigates.com/projects/drone-war>. The New America Foundation maintains a similar database. See Peter Bergen *et al.*, *America's Counterterrorism Wars*, NEW AMERICA FOUNDATION, <https://www.newamerica.org/international-security/reports/americas-counterterrorism-wars/>. As of April 2021, the Bureau of Investigative Journalism's database showed that there were between 4126-10,076 deaths from drone strikes in Afghanistan, 2515-4026 deaths in Pakistan, 1197-1420 in Somalia, and 1020-1389 in Yemen. *Drone Database*, THE BUREAU OF INVESTIGATIVE JOURNALISM.

²⁰¹ See, e.g., AMNESTY INT'L, *THE HIDDEN US WAR IN SOMALIA: CIVILIAN CASUALTIES FROM AIR STRIKES IN LOWER SHABELLE* (2019) (describing effect on civilians of U.S. drone strikes in Somalia); Edney-Browne, *supra* note 165, at 1341 (describing consequences of drone strikes and threat of drone strikes on civilians living in high-risk areas); CENTER FOR CIVILLIANS IN CONFLICT, *THE CIVILIAN IMPACT OF DRONES: UNEXAMINED COSTS, UNANSWERED QUESTIONS* (2012) (describing effects on civilians of drone strikes, including lost loved ones, disruptions to daily life, and increased anxiety among other effects).

restrictions on travel, and the psychological effects of losing loved ones or living in conflict zones. But none of this evidence appears to have had a fundamental effect on U.S. policy. To be sure, the U.S. has reacted in some ways. It has established a program allowing the U.S. to issue solatia payments, meant as an expression of condolences for those whose loved ones were killed by U.S. actions.²⁰² And the U.S. has long argued that its weapons are as precise as possible. But these arguments and responses miss the larger point that there is no agreed-upon quantum or type of evidence that would convince policymakers to make fundamental changes to policy.

²⁰² U.S. GOV'T ACCOUNTABILITY OFF., GAO-07-299, THE DEP'T OF DEF.S USE OF SOLATIA & CONDOLENCE PAYMENTS IN IRAQ AND AFGHANISTAN (2007).