Industrialized Martyrdom: Group Development, State Military Capability, and the Modern Proliferation of Suicide Terror

by

Samuel Klapper Goldenberg

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved July 2023 by the
Graduate Supervisory Committee:

Reed Wood, Co-Chair
Thorin Wright, Co-Chair
Timothy Peterson
David Siroky

ARIZONA STATE UNIVERSITY

August 2023

ABSTRACT

In this dissertation, I investigate the causes of differences in the use of suicide terror by non-state armed groups, including magnitude of use, targeting decisions, and how reliant groups are on suicide attacks. I develop and test the propositions that the age of groups and the capability of the state military they face significantly impact the scale of use and targeting selection of their suicide attacks. Older groups are predicted to carry out a decreased number of suicide attacks in comparison with younger groups, but increase their focus on attacking hard targets and decrease their focus on attacking soft targets, due to older groups being more likely to possess skilled terror operatives and to follow traditional guerrilla warfare practices. Groups that began using suicide terror later in their existence are predicted to carry out less suicide attacks than groups that adopt the tactic earlier in their histories, due to organizations having increased reliance on established practices and procedures. Groups fighting strong state militaries are predicted to carry out more suicide attacks, a higher proportion of attacks on soft targets, and be more reliant on suicide terror than are groups fighting weak militaries, as increased military pressure on groups decreases the effectiveness of their individual attacks, reduces their ability to train skilled operatives, and increases their desperation and incentive to use unconventional tactics. I conduct a quantitative analysis of 140 groups from 1998-2012 and find that older groups and groups that adopt suicide terror later in their existence carry out less suicide attacks than younger groups and groups that adopt suicide terror earlier in their histories. I also find that groups respond to increases in state military personnel by carrying out more suicide attacks overall, a higher proportion of suicide attacks against soft targets, a lower proportion against hard targets, and by

becoming more reliant on suicide terror. These dynamics are also illustrated in depth through case study analysis of suicide terror campaigns by the Liberation Tigers of Tamil Eelam (LTTE) and Al-Qaeda in Iraq (AQI)/Islamic State of Iraq and the Levant (ISIL), which represent two distinct models of suicide terror.

DEDICATION

To my parents

To Will Moore, whose teaching and mentorship inspired this project

ACKNOWLEDGMENTS

Getting a PhD is truly a journey that cannot be taken alone. And it was a long journey that I could not have completed without the support and assistance of so many people. First, I want to thank Professor Reed Wood, who put in so much time guiding me on this project from a continent away, but did not let the distance or a global pandemic hinder him from providing me with first-class feedback and mentorship. Next, I want to thank Professor Thorin Wright, whose guidance on advancing through a PhD program and beyond has proved invaluable. I also wish to thank Professor David Siroky, who also kindly stayed on my committee while being a continent away, and I greatly value the teaching and feedback I have received from him, which has certainly made an impact on this project. Thanks also to Professor Timothy Peterson, who stepped up to offer his time to serve on my committee during a hectic period of departmental transition. I also wish to offer thanks to Professor Carolyn Warner for her helpful feedback on this project in its earlier stages, especially on the prospectus. I offer my deep gratitude to the late and greatly-missed Professor Will Moore, who put his confidence in me to teach a class session on his behalf, the topic of which became the initial seeds of this project.

Completing a dissertation is just one part of the PhD journey. Taking course instruction and interactions with faculty and peers are also key parts of the experience. It has been my great pleasure to learn from and work with such great faculty during my time at the School of Politics and Global Studies at ASU, for which I want to thank Professors Magda Hinojosa, Kim Fridkin, Michael Hechter, Miki Kittilson, Cameron Thies, Sarah Shair-Rosenfield, Lenka Bustikova, Margaret Hanson, and Paul Lewis. I also want to express my deep thanks to Jenna Roelle who has been Graduate Coordinator

over my last five years at SPGS, and to Leah Legg, who was in the position during my first two years. Your kind assistance was invaluable in helping me progress smoothly through each stage in the program. I also wish to thank my fantastic fellow graduate students at SPGS; it was a wonderful experience to learn along with you and become your colleague. Thank you all for making SPGS a pleasant environment in which to learn and grow as a person and scholar.

I will always be grateful to the wonderful faculty at my undergraduate and Master's institutions who supported me in beginning my PhD journey with their letters of recommendation: Professor Vanessa Schwartz and Professor Richard Dekmejian (Emeritus) at the University of Southern California and Professor James Hughes at the London School of Economics and Political Science.

Finally, I want to thank my mother, Bonnie Goldenberg, and my father, Merrill Goldenberg, the most loving and supportive parents any son could ask for. Both of you make up my strong foundation, without which I would not have been able to make even the first step on this long PhD journey.

TABLE OF CONTENTS

Page

APPENDIX Page

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

The Issue

Suicide terror has been the deadliest, and arguably most impactful terror tactic since the early 1980s. Famous suicide attacks, including Hezbollah's bombing of the Marine barracks in Lebanon in 1983, the assassination with a suicide bomber of former Indian prime minister Rajiv Gandhi by the Liberation Tigers of Tamil Eelam (LTTE) in 1991, and Al-Qaeda's attacks of September 11, 2001, have all changed the course of world politics. Since 2001, the use of suicide terror by non-state armed groups has increased dramatically. While according to the Global Terrorism Database (GTD), 187 suicide attacks occurred from 1981-2000, there were 7,082 suicide attacks from 2001-2019, which killed over 70,000 people (National Consortium for the Study of Terrorism and Responses to Terrorism [START] 2021a). These totals show that 97.4% of suicide attacks from 1981-2019 have taken place since 2001 (START 2021a). Compared with other terror tactics, suicide attacks do a disproportionate amount of damage relative to their occurrence. Since 2001, suicide attacks account for 5.5% of all terror attacks recorded in the GTD, but have caused 22.6% of the total deaths from terror attacks (START 2021a).

What distinguishes the suicide attack as a military technology is that "the premeditated certain death of the perpetrator is the precondition for the success of the attack" (Bloom 2005, 76). Therefore, a high-risk mission in which the odds of survival are near zero does not count as a suicide attack, because the death of the operative is not

required for the goal of the mission to be achieved. For a suicide attack, the death of the operative "is the means by which the attack is accomplished" (Horowitz 2015, 71). The GTD, my primary source of data for terror attacks in this study, defines suicide attacks as those in which "the perpetrator did not intend to escape from the attack alive" (START 2021b). Suicide terror is the strategic use of suicide attacks to "cause intimidation or fear among a target audience," with the intention of coercing a government into making policy changes (Pape 2003, 345-346). As with other forms of terror, the real target of suicide terror is not the target directly attacked, but the wider public audience, with the goal of generating political pressure on a government so that it changes its policies (Atran 2003, 1534; Pape 2003, 349; 2005, 44; United States Congress 1990; US Department of State 2002, xvi).

In addition to the drastic increase in the use of suicide terror since 2001, the level of "professionalization" of suicide bombers has also changed since that year. The pre-2001 era saw major suicide attacks by Hezbollah, the Tamil Tigers, and Al-Qaeda that were conducted by highly-trained and specialized cadres who attacked targets of high strategic value (Horowitz 2010b, 174, 179, 182, 197-199, 202; Pedahzur 2005, 14, 24, 41, 46-48, 72-73, 77, 79, 86, 99-103, 106, 126, 171-173, 177). In contrast, in the post-2001 era, the target selection by non-state armed groups using suicide terror has expanded to encompass the frequent targeting of non-strategic targets (i.e., soft and civilian targets of little strategic or symbolic value). Remote and rural towns have repeatedly been attacked in operations that have caused great carnage, but require little risk or skill by terrorist groups. The training and skills required of suicide terrorists has correspondingly been reduced. Fraser (2017) and Wilkens (2011) document that many suicide bombers in

Afghanistan and Pakistan are impoverished youths who have been indoctrinated in radical madrassas in Pakistan. Palestinian groups often recruited non-members to carry out suicide attacks and dispatched them on their missions with little preparation (Pedahzur and Perlinger 2006).

The original tactical logic behind suicide bombings was for attacking hard targets that non-suicide operations would not be able to reach (Horowitz 2010b, 179). In the post-2001 era, groups often use suicide bombings to attack lightly-guarded targets such as marketplaces and rural villages that could just as easily be attacked with traditional shooting operations or non-suicide bombings. While the main purpose of suicide bombings when the modern usage of the tactic began in the early 1980s in Lebanon was initially for pinpoint operations attacking high-value military and political targets, since 2001, they are now often used as an efficient means of killing large groups of people, wreaking havoc, and spreading political instability. Even though suicide attacks are only 3.9% of the terror attacks recorded in the GTD from 1981-2019, they are responsible for 16.4% of deaths from terror during this period (START 2021a).

The Contribution of the Study

This study's contribution is to explain the causes of differences between non-state armed groups in how they use suicide terror—how much they use it, which targets they choose to attack with it, and how much they rely on it. Important scholarly work has been done analyzing the correlates of suicide attacks in states and the causes of groups adopting suicide terror as a tactic. However, this body of research provides little comparison of *how* groups use suicide attacks or only compares a small, geographically-

limited set of groups (such as Middle East-based groups in the Arab-Israeli conflict). Therefore, issues that are under-explored in past research on suicide terror include why groups differ from each other in the number of suicide attacks they carry out, what determines the proportion of suicide attacks that groups carry out against military or civilian targets, and what determines the proportion of suicide attacks out of a group's total terror attacks (both suicide and non-suicide attacks).

To address these questions, I propose that the process of group organizational development and state military capability significantly impact the number of suicide attacks groups carry out, whether groups put more of their resources into attacking hard or soft targets with suicide attacks, and how much groups rely on suicide terror compared with other terror tactics. My first set of predictions is that groups at a higher stage of stage of development and groups that are late adopters of suicide terror will carry out fewer suicide attacks, and that less-developed groups will also carry out a higher proportion of suicide attacks against soft targets, and a lower proportion of suicide attacks against hard targets. I theorize that less-established groups lack a developed capacity to conduct guerrilla warfare and insurgency and the ability to train or recruit skilled fighters, which limits the effectiveness of their attacks and ability to conduct complex operations. These limitations incentivize groups to increase their use of a cheap and disproportionately deadly tactic like suicide terror, and focus more of their resources on attacking less-defended targets. Groups that are late adopters of suicide terror are likely to use it less than groups that are early adopters, as tactics used early in organizational development become part of a group's established practices and procedures, which are resistant to change.

My second set of predictions is that groups fighting against highly-capable state militaries will carry out more suicide attacks, a higher proportion of suicide attacks against soft targets, a lower proportion of suicide attacks against hard targets, and a higher proportion of suicide attacks out of total terror attacks. I theorize that groups facing an increased conventional military disadvantage are less able to attack targets of high strategic value due to state target-hardening, and that increased state military and security pressure reduce their ability to train their fighters and effectively carry out operations, especially complex operations. When groups face these adverse battlefield conditions, they are incentivized to carry out a larger number of smaller-scale attacks, shift resources to attacks on civilian targets of low strategic value, and increase their reliance on suicide terror due to their need for an unconventional force-multiplier to make up for their asymmetrical military disadvantage.

Scope Conditions of Study

The focus of this study is on non-state armed groups that have engaged in violent anti-state campaigns in the post-World War II era. This allows for comparison of both long-established and newer groups in their use of suicide terror after the introduction of its modern form in 1981. Traditional guerrilla groups following a Maoist model of insurgency are compared in their use of suicide terror with jihadist groups which have proliferated in recent decades (Moghadam 2008). I assume that non-state armed groups are rational and that they carry out terror attacks to further their chances of achieving their goals. Assuming rationality allows for a tactical and strategic analysis of the use of suicide terror and how these considerations impact how groups choose to use the tactic.

Rational groups also have a preference order for the type of tactics to employ in their struggle against a state, based on their capability and the capability of the state military they are fighting against.

Methodology and Findings

In testing the specific hypotheses derived from these theoretical propositions, I use *Group Age* to proxy for level of organizational development and *Troops Per 1,000 Population* to proxy for state military capability. The first set of hypotheses is that older groups and later adopters of suicide terror will conduct less suicide attacks than younger groups and early adopters of suicide terror. Older groups are also predicted to carry out a higher proportion of suicide attacks against hard targets and a lower proportion of suicide attacks against soft targets in comparison with younger groups. The second set of hypotheses is that increases in state military personnel lead groups to conduct more suicide attacks, a decreased proportion of suicide attacks against hard targets, an increased proportion of suicide attacks against soft targets, and an increased proportion of suicide attacks out of total terror attacks.

I test my hypotheses with a quantitative analysis of a group-year dataset that covers the years 1998-2012 and includes 140 non-state armed groups. The results show that older groups and late adopters of suicide terror carry out less suicide attacks than younger groups and early adopters of suicide terror. The results also show that groups respond to increases in state military personnel by carrying out more suicide attacks overall, a higher proportion of suicide attacks against soft targets, a lower proportion against hard targets, and a higher proportion of suicide attacks out of their total terror

attacks. These dynamics are also illustrated through case study analysis of suicide terror campaigns by the Liberation Tigers of Tamil Eelam (LTTE), also widely known as the Tamil Tigers, and Al-Qaida in Iraq (AQI), the group which later evolved into the Islamic State of Iraq and the Levant (ISIL). I argue that these groups represent two distinct models of suicide terror, with the LTTE having focused on selectively employing suicide attacks against strategic targets using highly-trained operatives, while AQI/ISIL specializes in the repeated and indiscriminate use of suicide attacks against civilian targets using unskilled operatives.

The case of the Tamil Tigers shows how older groups following a traditional guerrilla warfare model can be more selective in their use of suicide terror and focus their attacks on strategic targets, as they possess a plentiful number of high-skilled operatives and organizational experience in insurgency. The case of AQI/ISIL shows how when groups enter a conflict early in their lifetimes, they may resort to the frequent use of suicide terror and focus more of their efforts on attacking civilian targets, as they lack sufficient numbers of high-skilled operatives and experience in insurgency. Both of these cases also show how state military and security pressure on groups influence how they use suicide terror. In response to increased military and security pressure, both the LTTE and AQI/ISIL increased their use of and reliance on suicide terror and shifted resources from attacking hard targets to attacking soft targets. Their attack patterns dynamically shifted in response to battlefield conditions. When they were in a strong military position, they carried out fewer suicide attacks, shifted focus to attack hard targets, and relied less on suicide terror. When their position deteriorated, they carried out more suicide attacks, increased their focus on soft targets, and became more reliant on suicide terror.

The LTTE and AQI/ISIL are also representative cases of two distinct models of suicide terror. The LTTE's suicide terror campaign is an example of what I term the artisan production model of suicide terror, which is analogous to artisan production in a manufacturing context. As a high-capacity, well-established group, the LTTE was experienced in guerrilla warfare and had developed a corps of skilled fighters, so it was in a position to adopt the artisan model and selectively deploy these skilled assets against strategic targets. This approach can be seen in its attacks on military bases, naval and air assets, and even heads of state. Over 80% of its recorded suicide attacks in the GTD were against hard targets (START 2021a). The selective nature of its use of suicide terror can be seen in that suicide attacks were less than 7% of its total terror attacks (START 2021a).

AQI/ISIL's suicide terror campaign is an example of what I term the industrialized martyrdom model of suicide terror, which is analogous to a mass-production model. AQI/ISIL initially entered the Iraq conflict as a small, inexperienced group and intended to fight against the high-capacity US military, so adopting industrialized martyrdom was an effective and efficient way for it to use its limited resources and to compensate for its vast conventional military disadvantage. The scale of industrialized martyrdom in Iraq reached unprecedented heights and was a significant driver of violence in the country. Since the 2003 US invasion, more than 37% of all recorded suicide attacks in the GTD for the years 1981-2019 have taken place in Iraq (2,701 attacks), which have killed more than 26,000 people (START 2021a). AQI/ISIL is responsible for the most suicide attacks of any group in history, approximately 22% of the total in the GTD dataset (1,612 attacks) (START 2021a). Its attack record in Iraq

includes 346 suicide attacks on soft targets from 2003-2019, which alone would rank third in total suicide attacks (both on hard and soft targets) among all groups (START 2021a). Compared with the Tamil Tigers, AQI/ISIL relies far more on suicide terror, and approximately 21% of its terror attacks are suicide attacks (START 2021a). These two cases demonstrate how processes of organizational development and dynamic interactions between non-state armed groups and state militaries impact group use of suicide terror.

Structure of the Study

I will now provide an overview of the structure of the study. In chapter 2, I will provide a review of the previous literature on suicide terror and discuss its limitations and how these can be addressed. In chapter 3, I develop theoretical mechanisms to explain why groups differ in their use of suicide terror. This chapter includes a discussion of the model of how guerrilla organizations evolve over time that was developed by Mao Zedong and Che Guevara. The stage of development a group is at impacts its capabilities, including its ability to train skilled operatives and conduct complex operations, which in turns impacts its decision-making for the tactics it employs and the choice of targets it attacks. During the process of a group's development, it establishes organizational practices and procedures, including its repertoire of tactics, so throughout the group's existence it is likely to continue to rely on tactics that it gained expertise in during its formative years. This chapter will also discuss how the level of state military capability impacts how effectively non-state armed groups develop their capacities in guerrilla warfare and insurgency, train their operatives, and conduct operations. Groups adjust

their tactics and targeting in response to the level of military pressure placed upon them. Finally, I conceptualize group approaches to suicide terror as existing along a spectrum, with at one end the artisan production model, defined as the limited use of highly-trained operatives to attack high-value state and military targets, and at the other end the industrialized martyrdom model, defined as the mass use of low-skilled operatives against non-strategic civilian targets.

Chapter 4 includes the quantitative analysis that tests my hypotheses. First, I explain and introduce the hypotheses. Next, I describe my research design, including my dataset, dependent, independent, and control variables, the predicted behavior of the variables, and the chosen statistical models used for the analyses, including my justifications for choosing these specific models. Following the description of the research design, I provide the results of the analyses and discuss the implications of the results and the extent to which they confirm my hypotheses. Chapters 5 and 6 provide the case study analyses, with the case of the LTTE in chapter 5 and the case of AQI/ISIL in chapter 6. The purpose of these case studies is to illustrate in depth the specific dynamics that underlie my proposed theoretical mechanisms and the findings presented in chapter 4. These case study chapters show how group developmental processes and group-state conflict dynamics impact group use of suicide terror. Each of these chapters will justify the case selection and explain how the LTTE and AQI/ISIL are ideal representatives of the artisan production model of suicide terror and the industrialized martyrdom model, respectively. The background information on the two groups and the conflicts they were involved in will be provided, followed by analysis of how the organizational development of the groups and changes in battlefield conditions over the course of the

conflicts impacted their use of suicide terror and the model of suicide terror they chose to employ.

The concluding discussion of this dissertation will take place in chapter 7. I will first review the scholarly contribution of this study and its central findings. I will also review the analyses presented in the empirical chapters, which includes Chapters 4-6, and how it supports my proposed theoretical mechanisms and hypotheses. Next, I will discuss the limitations of the study and attempt to explain certain findings that did not comport with some of my hypotheses. I will also discuss the potential policy implications of my findings for state counter-terror and counter-insurgency practices. This final chapter will conclude with remarks on potential paths forward for extending the project in future research.

CHAPTER 2

LITERATURE REVIEW

Past scholarship by social scientists on the correlates of suicide terror works at every level of analysis from the individual to the system-level. However, the most prominent work focuses on the group, campaign, and state-levels. As I discussed previously, there are several major definitions of what constitutes a suicide attack. According to Bloom (2005, 76), a suicide attack is a terror attack in which "the premeditated certain death of the perpetrator is the precondition for the success of the attack." A mission where death is likely, but there is still some chance of survival does not count as a suicide attack. Horowitz (2015, 71) defines a suicide attack as a terror attack in which the death of the operative "is the means by which the attack is accomplished." The definition used in the GTD is terror attacks in which "the perpetrator did not intend to escape from the attack alive" (START 2021b). Suicide terror can be defined as the strategic use of suicide attacks and bombings as part of a campaign to coerce governments and civilian populations. It is intended to "cause intimidation or fear among a target audience," with the intention of forcing government policy changes (Pape 2003, 345-346). This strategic logic is similar to other forms of terror as the true target of suicide attacks is not the target directly attacked, but the wider public audience, with the goal of building up pressure on a government to force it to make policy changes (Atran 2003, 1534; Pape 2003, 349; 2005, 44; United States Congress 1990; US Department of State 2002, xvi).

Particularly prominent and influential studies by Pape (2003; 2005) use suicide terror campaigns as the unit of analysis. He finds that suicide terror is primarily a

response to occupations of territory by liberal democracies that non-state armed groups view as their rightful homeland (Pape 2003, 344-345). Democracies are targeted by non-state armed groups, because the groups calculate that since democratic governments are accountable to their citizens, if citizens fear for their safety due to the threat of suicide bombings, they will pressure their governments to withdraw from the disputed territory (Pape 2003, 349). Suicide terror is a "weapon of the weak," to borrow a term from Scott (1985), a strategy of coercive punishment that non-state armed groups employ against states as a means of getting their political demands met (Pape 2005, 30). Pape's formulation is derived from Schelling's model of "coercive diplomacy" (Schelling 1966, 5). Schelling (2-4) distinguishes coercion from brute force in that while brute force simply involves taking what is desired from an opposing party, coercion uses the "power to hurt" to get the opposing party to change its behavior. This situation occurs when neither side has the capability or desire to physically wipe out or impose its will on the other, but they do have the capability to hurt one another (3). Within this bargaining model, the perpetrator of coercion makes it clear to the target of coercion what behavior will result in violent punishment, and what behavior will result in the perpetrator ceasing its violent punishment of the target (5).

As non-state armed groups are almost always far weaker than the states they are fighting against, suicide terror is employed as an extreme measure of last resort to obtain territorial concessions when they lack the military capacity to conquer territory by force (Pape 2005, 30). Employing suicide terror sends an especially strong costly signal to the state that the group will not be deterred by the threat of death (28). It is important to take into account that most of the occupations and resulting suicide terror campaigns in Pape's

studies, including Lebanon, the West Bank and Gaza, and Chechnya involve the militaries of the United States, Israel, and Russia, among the most powerful in the world (Pape 2003, 348). Therefore, the power asymmetry between the state and the non-state armed group is even more pronounced in these conflicts, making the use of a desperate tactic like suicide terror especially likely according to Pape's theory. This pattern can be seen in subsequent American occupations of Afghanistan and Iraq which have seen by far the greatest use of suicide terror in history. Pape's work helped establish a research agenda for the study of suicide attacks, especially with the focus on foreign occupation and democracy as key independent variables.

Pape's claims have been extensively tested and critiqued in the scholarly literature. Ashworth et al. (2008) criticize his studies for selecting on the dependent variable, as they only analyze conflicts in which suicide bombings were used. Piazza (2008) uses terrorist incidents as the unit of analysis to compare suicide and non-suicide attacks and finds that foreign occupation, but not specifically foreign occupation by democracies to be associated with suicide attacks. He also finds that religious difference between target and perpetrator make suicide bombings more likely, and that groups with universalist or abstract political goals are more likely to employ suicide bombings in comparison with those pursuing secular nationalist goals (35-37). Choi and Piazza (2017) use cross-national, time-series data to investigate the effect of foreign military interventions on levels of suicide bombings. They demonstrate that while foreign military interventions lead to an increase in suicide bombings in a country, this is dependent on the characteristics of the intervention, specifically that it is on behalf of an incumbent government and involves large numbers of troops (Choi and Piazza 2017).

Bloom (2004; 2005) provides one of the main alternative theories to Pape's. She critiques his prediction that democracies are more likely to be the targets of suicide terror, arguing that since authoritarian states allow for little dissent at all, especially violent dissent, it is difficult to empirically assess the claim that democracies are uniquely prone to suffering suicide attacks (Bloom 2005, 84). She also questions how Pape defines democracy and uses the concept in his work. For example, he classifies Al-Qaeda attacks against the non-democracies of Saudi Arabia and Morocco as being against a democracy because their intended audience was the United States (84). In addition, the democratic credentials of some of the countries and territories included in his sample, such as Sri Lanka during the 1980s, Israeli rule in the West Bank and Gaza, and Russian rule in Chechnya are also questionable (84).

Bloom (2004; 2005, 78-79, 95) theorizes that rather being due to foreign occupation by democracies, levels of suicide bombings are instead influenced by the domestic politics of a rebel group's constituency as multiple rebel groups compete for public support by demonstrating their resolve and commitment to the cause, leading to an outbidding dynamic among them. For example, in the case of Palestinian non-state armed groups, the Islamist groups Hamas and Palestinian Islamic Jihad gained a great deal of popularity among the Palestinian public through their use of suicide bombings at the expense of formally dominant secular factions, such as Fatah (Bloom 2004, 66, 70-71). As a means of maintaining their own "market share" of public support, the secular nationalist and even Marxist groups, including Fatah, the Popular Front for the Liberation of Palestine and the Democratic Front for the Liberation of Palestine also adopted the tactic (Bloom 2004, 72-73). Bloom (2005, 79) also observes that suicide bombings are

more likely to occur in ethnic and religious conflicts, as it is easier to morally justify indiscriminate violence against a group labeled as an "other." Key testable hypotheses derived from Bloom's work are that the number of non-state armed groups operating in a country will lead to an increase in suicide bombings as they compete with each other in an outbidding process, and that the presence of persecuted minorities in a given territory will be associated with more suicide bombings in that territory.

Findley and Young (2012, 709) test Bloom's outbidding thesis through an analysis of datasets that include suicide attacks logged by country-year and country-month for years with armed conflict from 1970-2004. Focusing on armed conflict years is justified, as suicide attacks are rarely isolated incidents; they are usually a tactic employed in ongoing internal conflicts. Their key independent variables are the number of non-state armed groups, number of conflict veto players, and number of conflict actors (710). They find no statistically significant support for the outbidding thesis with any of these variables, with the notable exception of Israel, the case on which so much of outbidding theory was based (712-715, 718-719). This suggests that there may be unique aspects of the Israeli-Palestinian conflict, such as the heavy involvement of outside major powers, that may make it a problematic case from which to build general theory on suicide terror (719).

Wade and Reiter (2007, 335) test Bloom's hypothesis on the association between the persecution of minorities and suicide attacks through an analysis of a dataset of suicide attacks from 1980-2003. They find that states that have more Minorities at Risk (MARs) are more likely to be the targets and locations of suicide terror (341-343). Their findings also provide only limited support for Pape's prediction that democracies are the

likeliest target of suicide bombings (341-342, 344). However, they do find an interaction effect with MARs, and states that are rated Free or Partly Free by Freedom House are more likely to be the targets and locations of suicide terrorism as the number of MARs within them increases in comparison with states rated Not Free (342-344). Country population size, Muslim population, and previous suicide bombings are also strongly associated with higher rates of suicide attacks (341-343). Overall, this body of literature is more focused on what causes groups to adopt suicide terror as opposed to how they use it—the scale of use and targeting decisions.

In addition to the scholarship that uses the "weapons of the weak" and outbidding paradigms to explain the correlates of suicide terror overviewed above, cross-national research on suicide terror has been enriched by studies that have employed terms and concepts from labor economics. This labor economics paradigm has been fruitful for the development of theory at the individual and group levels of analysis. Laurence R. Iannaccone, Eli Berman, and David D. Laitin were the major innovators of this approach to the study of suicide terror. In Iannaccone's model, he conceptualizes suicide terror as a "market for martyrs" (Iannaccone 2004; 2006). Within this market, aspiring suicide bombers are the labor force, non-state armed groups are firms, and attacks are the outputs that they work on together to produce (Iannaccone 2004, 10; 2006, 13). In addition, within the model the aspiring bombers are the suppliers of labor and the groups, i.e., the firms, are the demanders (Iannaccone 2004, 10-13; 2006, 13). Iannaccone (2004, 14-17; 2006, 19) argues that most groups that use the suicide bombing tactic are religious, because religious groups are especially good at overcoming the collective action problems necessary to recruit and use suicide bombers. Echoing Hechter (1987), he

theorizes that religious organizations foster strong bonds of solidarity among members through the provision of collective goods and effective screening, monitoring, and sanctioning mechanisms that limit free riding by organization members (Iannccone 2004, 15; 2006, 20). He argues that a traditional security response to suicide terror that targets the supply side of the market for martyrs is likely to be ineffective and counterproductive for the following main reasons:

1. Groups do not need a large supply of willing volunteers for suicide attacks to make effective use of the tactic and can spread terror with relatively few bombings.[1]
2. When the state targets the main source of supply of suicide bombers, which is young, single men, groups are able to substitute with older individuals, women, and even child bombers.
3. Targeting the supply of suicide bombers increases the difficulty (and prestige) of suicide attacks, which necessitates groups providing more rewards to bombing volunteers and therefore increasing the supply of potential recruits. (Iannccone 2004, 11-12; 2006, 15-16).

Instead, as a policy response to suicide bombing, he recommends targeting the demand side of the market for martyrs through improving religious pluralism and increasing political and economic freedom (Iannccone 2004, 18; 2006, 26). Iannccone's work articulates a general labor economics model of suicide terror, but does not test it with an empirical analysis of data or in-depth analysis of cases.

Other scholars and analysts have used terms and concepts from labor economics to describe the phenomenon of suicide terror. Ahmed Rashid (2008) describes suicide terror in Afghanistan and Pakistan as a "factory-style conveyor belt system" with teenagers being recruited from radical madrassas in Pakistan along the Afghanistan-Pakistan border, moved between safe houses during their training, and directed toward

1. Indeed, Palestinian groups during the Second Intifada had more willing volunteers for suicide attacks come forward than these groups actually needed and turned most of them away (Hassan 2001).

their targets. He observes that "the production of suicide belts in the tribal Pashtun region has become a cottage industry," where "one household makes the detonator, another sews the belt, a third molds ball bearings, and so on" (Rashid 2008). He also describes the process that brings foreign suicide bombers to Iraq as a "human conveyor belt" (Rashid 2008). Martha Crenshaw (2009; 359, 363) also states that "suicide attacks are a production" and describes the process of suicide bomber recruitment and deployment as a "production line." Both of these authors employ this terminology as a useful metaphor to characterize one of the defining aspects of the post-2001 wave of suicide terror, but they do not use it to develop theory on the tactic.

Berman and Laitin (2005; 2008) conducted the first major studies that employ a labor economics theory to analyze the problem of suicide terror at the group level. In their work, they propose a formal model of suicide terror that conceptualizes non-state armed groups as clubs that provide local public goods in the areas in which they operate (Berman and Laitin 2005; 2008). Within their "club model," groups attract recruits through these local public goods (in the form of social services), and groups favor low-skilled recruits, because they have fewer financial options outside of the "club," and are thus less likely to defect, which is crucial for the secrecy of missions (Berman and Laitin 2008, 1953). In addition, radical religious organizations, such as the Taliban, may require their recruits to give up the pursuit of developing marketable skills for the sake of religious study, a rational decision for individuals who want access to the club goods the organization is providing (1952). When prospective recruits sacrifice the opportunity to gain marketable skills, this also signals genuine commitment to the organization and that their risk of defection is limited (1952).

Berman and Laitin (2005, 24; 2008, 1958-1959) test hypotheses on the association between the provision of social services by groups and the amount and lethality of suicide attacks a group carries out. They hypothesize that groups which provide social services will carry out more and deadlier suicide attacks, based on the proposition that these groups will attract higher quality recruits (in terms of their commitment and loyalty) (Berman and Laitin 2005, 24; 2008, 1958-1959). Using data from attacks by groups in Israel, the Palestinian territories, and Lebanon, Berman and Laitin (2005, 25-26; 38-39; 2008, 1960-1961) find that Hamas and Hezbollah, which are well known for providing social services to their followers (and the constituencies they claim to represent), carry out more and deadlier suicide attacks than other Palestinian and Lebanese groups that do not provide these services.

These results are consistent with the club model of non-state armed groups. The success of any terrorist operation depends upon the loyalty of the cadres carrying it out. Even one defection likely dooms the operation to failure and may endanger the group as a whole (Berman and Laitin 2005, 1, 16, 18; 2008, 1944). Berman and Laitin (2008, 1959) theorize that "suicide attacks are reserved for targets that are well enough defended that their destruction is unlikely using conventional tactics." Therefore, suicide attacks are used for especially important missions whose success is most important to the organization and where defection would be the most damaging. Groups that provide social services to buy the loyalty of their followers face the least risk of defection, which enables them to carry out more and deadlier suicide attacks (Berman and Laitin 2005, 22-24, 38-39; 2008, 1960-1961).

Berman and Laitin provide compelling quantitative evidence for the validity of their formal model of suicide terror, and make an important contribution by analyzing how groups that use suicide terror use the tactic differently, as opposed to whether they adopt it, which tends to be the norm in this literature. However, their data analysis is mainly limited to Palestinian and Lebanese groups, which are important, but not necessarily generalizable cases, an issue the authors acknowledge (Berman and Laitin 2005, 27). Another major issue with Berman and Laitin's studies is that their data only goes through 2003, missing most of major suicide terror campaigns that have occurred since that time, including in Iraq, Afghanistan, and Pakistan (Berman and Laitin 2008, 1948). To illustrate the difference in scale between the data in their studies and the number of suicide attacks that has occurred since 2003, their dataset includes 350 attacks, while 6,862 attacks have occurred from 2004-2019, according to the GTD (Berman and Laitin 2008, 1948; START 2021a). Berman and Laitin's dataset therefore includes less than 5% of the total recorded suicide bombings in history.

Horowitz (2010a; 2010b) builds on the concept of non-state armed groups as firms or clubs by drawing on the business innovation literature to develop a theory of what causes groups to adopt or not adopt the tactic of suicide terror. He proposes and tests what he calls adoption capacity theory, in which organizations require a certain amount of organizational capital in order to adopt a military innovation (Horowitz 2010a, 43). Organizational capital is a concept from the business innovation literature that is defined as "the previously intangible aspects of organizational strength that firms draw upon when facing periods of industry transition" (44). Essentially, it is the capacity of an organization to evolve and adapt to changing circumstances. Possessing a high amount of

organizational capital allows firms to adapt to disruptive innovations in their industry (Horowitz 2010a, 35, 45-46; 2010b, 54, 67). Horowitz (2010b, 180) categorizes suicide terror as a "major military innovation," because its use arose in response to states hardening targets, making it much more difficult for groups to carry out attacks and assassinations with conventional tactics. In addition, for groups to adopt suicide terror as a tactic, they need to fundamentally revamp how they train many of their operatives to turn them from traditional guerilla fighters into human bombs (178-180).

Horowitz (2010a, 43, 47; 2010b, 188) tests his adoption capacity theory by carrying out an analysis of all recorded non-state armed groups between 1968-2006 and investigating what group characteristics lead them to choose to adopt or not adopt suicide terror.[2] His dependent variable is a binary variable of adopt/not adopting suicide terror, and his key independent variable is group age, which proxies for organizational capital (Horowitz 2010a, 45-46; 2010b, 188). He reasons that younger groups have higher organizational capital than older groups, and therefore newer organizations are more likely to adopt innovations than older organizations which have more established bureaucratic cultures and repertoires of tactics that lead them to resist innovation (Horowitz 2010a, 45-47). Therefore, his primary hypothesis is that younger groups are more likely to adopt the tactic of suicide terror than are older groups (Horowitz 2010a, 46-47; 2010b, 187). The results support his hypothesis: As groups grow in age, they become significantly less likely to adopt suicide terror as a tactic (Horowitz 2010a, 50-51; 2010b, 190). A limitation to Horowitz's work is that it is focused on the diffusion of

2. This includes 823 groups defined as terrorist groups by Memorial Institute for the Prevention of Terrorism and the RAND Corporation (MIPT-RAND). The MIPT-RAND dataset is no longer publicly available.

the suicide terror tactic between groups. Due to the dependent variable being a binary adopt/not adopt variable, groups that rarely use the tactic are treated as equivalent to groups that use it often. Therefore, it does not address the issues of magnitude of usage or targeting that are so essential for understanding the characteristics and dynamics of the modern wave of suicide terror.

The work using labor economics theory overviewed above focuses on the characteristics of non-state armed groups and how they influence group behavior. In conceptualizing non-state armed groups as firms, it is also useful to consider the characteristics of the "employees," i.e., the individual terror operatives. This includes issues such as the recruitment and development of "talent," the type of tasks assigned to operatives based on their skill set, and how groups alter their tactics based on the labor market of terrorist operatives that is available. The broader literature on rebel recruitment provides useful insights that can be applied to developing theory for the recruitment, training, and deployment of suicide bombers.

Weinstein (2005) demonstrates with the example of rebel groups in Africa how both group resource endowments and organizational characteristics determine the quality of their recruits. Groups that recruited with tangible financial awards, such as Renamo in Mozambique and the Revolutionary United Front (RUF) in Sierra Leone, primarily attracted "opportunistic joiners" who joined the fight mostly based on these promised awards instead of caring about a specific cause or ideology (599). On the other hand, groups that lacked access to natural resources or a wealthy financial patron, such as the National Resistance Army (NRA) in Uganda and the Eritrean People's Liberation Front (EPLF), used their social and community ties to cultivate ideologically committed

recruits willing to accept deferred political and economic gains (611-612, 615-616). The NRA and EPLF proved far more effective as rebel organizations than Renamo and the RUF due to the difference in the quality of their recruits and their superior ability to develop their recruits (613-618). Weinstein's model is similar to the concept of high-skilled versus low-skilled suicide bombers that will be proposed in this study. Individuals recruited by the NRA and EPLF tended to be better educated and politically engaged, i.e., high-skilled, in comparison with the unemployed youth (i.e., low-skilled individuals) who made up the core of the RUF and joined for the promise of plunder (not to forget the forced recruitment of children by this group as well as by Renamo) (Andvig and Gates 2010, 88; Weinstein 2005, 610, 615-617).

Theorizing on the high-skill/low-skill divide in terrorist labor can be helped by looking to the literature on the use of child soldiers by non-state armed groups, as children almost by definition are the lowest-skilled workers. Andvig and Gates (2010) use a model of supply and demand for child labor to determine the level of child recruitment by rebel groups. In their model, this level is determined by the interaction between the local availability of child soldiers (the supply side), organizational characteristics that make a group more likely to recruit children either forcibly or voluntarily (the demand side) (88-90). The supply side is determined by the socioeconomic characteristics of an area that make children vulnerable to recruitment, such as unemployment and poverty (89). The demand side is heavily impacted by conflict dynamics with groups fighting a losing battle being more likely to lower their recruitment standards as the battlefield depletion of skilled fighters increases demand for low-skilled recruits to replace them (88-90).

The capability and battlefield position of a group also impacts its conflict behavior. The civil conflict literature shows that groups in a weak position or that have been depleted of resources are more likely to target civilians. Kalyvas (1999) argues that groups on the verge of defeat target civilians as an intimidation measure to prevent them from switching to the government side. Hultman (2007) finds that groups attack civilians as a bargaining measure against the government to make up for battlefield losses. Wood (2014) shows how groups that are depleted of resources prey on the civilian population to make up for their losses. The ideas explored in this literature inform the development of my own theoretical mechanisms on suicide terror, where I will argue that low-capability groups and/or groups under increased military pressure will carry out more suicide attacks and more attacks on soft (civilian) targets.

The labor economics framework for understanding the recruitment and deployment of rebels applies just as well to suicide bombers. Benmelech and Berrebi (2007) provide evidence from the universe of cases of Palestinian suicide bombers that demonstrates how the skill level of recruits determines the type of targets they are sent to attack as well as the effectiveness (casualties inflicted) of their attacks.[3] They find that Palestinian suicide bombers possessing higher human capital (i.e., higher age and education level) were sent to attack more important targets, which the authors define as larger Israeli cities by population size (228, 231). The authors also find a positive association between the amount of human capital the suicide bombers possess and the effectiveness of their attacks (228-230). Within the sample of Palestinian suicide

3. Specifically, the period of the Second Palestinian Intifada from 2000-2005.

bombers, the top five deadliest attacks were carried out by individuals significantly above average in their age and education level (230).

Benmelech, Berrebi, and Klor (2012) build upon these findings with further analysis of data from the Israeli-Palestinian case and demonstrate that when economic conditions worsen in the Palestinian territories, more high-skilled, highly-educated, older, and experienced individuals become suicide bombers, as there is less opportunity-cost for becoming a terror operative if there are fewer economic opportunities. When Palestinian unemployment increased, raising the supply of high-skilled terrorist labor available to non-state armed groups, more important Israeli targets (which are also defined in this article as larger Israeli cities) became targeted more frequently, once again demonstrating how the skill level of suicide bombers influences targeting selection by groups (121-122). The findings of these two studies support the formal theory developed by Bueno de Mesquita (2005), which proposes that groups deliberately screen their recruits to select individuals with the most ability and education.

The advantage these studies have of investigating suicide bombings through the prism of the Second Palestinian Intifada is that the entire universe of cases of suicide bombings in this conflict is available to researchers, complete with demographic information on every bomber that has been compiled by the Israeli Security Agency (Benmelech and Berrebi 2007, 225).[4] However, the issue with generalizing about suicide terror from this single conflict, in addition to its potentially unique socioeconomic dimensions, is that it represents a relatively small number of cases of suicide attacks (195

4. As far as I am aware, this is the only conflict for which this level of completeness of information on suicide attacks has been compiled or made available.

out of 7,269 attacks between 1981 and 2019, according to the GTD) (START 2021a). In addition, the way these studies define target importance is problematic and lacks precision. Benmelech, Berrebi, and Klor argue that city size is a valid proxy for target importance, because more important targets are likely to be present in larger cities, and that attacks in large cities will garner more media coverage and therefore be more effective in spreading terror (Benmelech and Berrebi 2007, 228; Benmelech, Berrebi, and Klor 2012, 115).

The problem with their approach is that it makes the assumption that all of the targets in large Israeli cities have the same importance and that all of the targets in large cities are more important than all of the targets in small cities. It therefore assumes that a discotheque in Tel Aviv or a bus in Jerusalem represents just as important a target as the Israel Defense Forces headquarters in Tel Aviv or the Israeli Knesset in Jerusalem. Both large and small Israeli cities contain a spectrum of soft and hard targets, and the analyses of Benmelech, Berrebi and Klor do not capture these distinctions. The limitations in these studies demonstrate the need for including a broader range of groups in the analysis of group targeting decisions.

Acosta and Childs (2013) directly address the causes of the modern wave of suicide terror and the unprecedented increase in use of the tactic. They analyze the spread of suicide attacks from a fourth level of analysis, the network level (first level: individual, second: organization, third: country), and conceptualize suicide terror as a global network of organizations in which certain organizations acts as brokers and spread knowledge and expertise on the tactic (50-63). They use the Suicide Attack Network Database (SAND) (created by Acosta), which includes recorded suicide attacks between 1980-2012 to test

hypotheses on the impact of ties between organizations, the development of broker organizations on numbers of attacks, and past attacks on future attacks (52-67, 72). Hypotheses are tested at both the network-year and organization-year levels (63-64). In a given unit-year, increases in total ties, brokerage ties, and attacks, are associated with more attacks in the next unit-year (64-67).

The authors contend that their network theory supports a culturalist as opposed to rationalist framework for the understanding of suicide terror (Acosta and Childs 2013, 69-71). They argue that the modern increase in suicide bombings is due to the spread of the tactic between ideologically aligned Islamist groups, so the increase is a byproduct of the spread of a global culture of martyrdom within the Muslim world, not because the tactic is strategically effective (67-71). This finding is in line with the work of Abrahms (2014) that suicide terror is fundamentally non-strategic, evident by the fact that groups employing suicide terror have a poor record of achieving their outcome goals, which has also been observed by Acosta (2014, 137-148). While Acosta and Child's (2013) study offers a quantitative analysis comparing the number of suicide attacks groups carry out, it is limited by the fact that it only includes groups that have conducted suicide attacks, leaving out of their analysis major groups that have not used the tactic and potentially biasing the sample in the study. Additionally, the authors include only a very limited number of control variables, therefore not controlling for key group, conflict, and country-level factors, such as group size, group territorial control, conflict intensity, the political system of the country a group is operating in, the country's population and economy, etc. (53, 63-65, 67).

In his 2016 study, Acosta (2016, 183) notes that the results of work by Abrahms (2014), Acosta (2014, 137-148), and Acosta and Childs (2013) raise the puzzle from a rationalist perspective of why the use of this tactic has increased dramatically over time if it is counterproductive to achieving the goals of non-state armed groups. A major problem with using the achievement of outcome goals as a measurement of effectiveness for terror tactics (and determining whether they are actually rational and strategic) is that this sets an unreasonably high bar for evaluation. For example, insurgent groups in Iraq who embarked on a suicide terror campaign of unprecedented scale up to that point in history failed in their ultimate outcome goal of overthrowing the US-backed government, but they were certainly successful in undermining stability in Iraq and stymying America's political goals in the country. AQI/ISIL, the most prolific user of suicide terror (1,612 attacks out of 7,269 recorded suicide attacks in the GTD from 1981-2019, 22.2% of the total) ultimately failed in securing its Caliphate, but conquered territory larger than the size of Britain and its military defeat required the intervention of a global coalition including 85 countries and international organizations (Gerges 2021, 217; Kaczkowski et al. 2021, 7; START 2021a; The Global Coalition Against Daesh [Global Coalition] 2023a; 2023b; Wasser et al. 2021, 125).

These are substantial achievements for a non-state group. Non-state armed groups opposing a state usually face massive disadvantages in power and resources, and less than 20% of them partially or completely achieve their outcome goals, according to Acosta (2014, 144). They have a limited repertoire of tactics to choose from, so the fairer way to measure the effectiveness of a tactic is whether it is superior to the other possible options. If suicide attacks can be demonstrated to be more effective than non-suicide attacks, then

a rationalist-strategic approach to the understanding of suicide terror would continue to be justified.

Acosta (2016) reaffirms the validity of the rationalist-strategic framework for understanding suicide terror that was established by Pape. Using a dataset of 310 non-state armed groups between 1980-2013, including all groups that have conducted suicide attacks and a random sampling of groups that have not, this study tests the hypotheses that adopting the suicide bombing tactic increases a group's likelihood of survival and making network ties with other groups (181, 185-187). The results demonstrate positive associations between a militant organization conducting suicide attacks and an organization's survival rate and on an organization's number of network ties (188). Acosta argues that while suicide attacks are ineffective for achieving organizational outcome goals, they are effective at demonstrating commitment to a group's target constituency, raising a group's status among this constituency and boosting its recruitment and support which is essential for group survival (181, 184-186, 189-193).

In addition, an interaction is postulated between network ties and survival (Acosta 2016, 181, 186, 188, 193). Using suicide attacks demonstrates commitment to like-minded groups, which helps forge network ties, raising a group's status and also gaining it access to outside expertise, which aides in group survival (181, 186-187, 190-192, 194). This study analyzes a broad range of groups and includes a wide time frame of analysis to show why groups adopt and continue to use suicide terror, even if it appears to have limited utility in actually helping them to achieve political goals. However, the study does not address issues such as targeting, scale of use of suicide terror, and how much groups engage in suicide attacks compared with other terror tactics.

The literature reviewed in this chapter demonstrates a limited engagement with and exploration of the causes of differences between a broad variety of groups in how they use suicide terror, as opposed to the causes of them adopting the tactic. Knowledge of suicide terror would be further advanced by developing and testing theory on how the characteristics of groups, the conflicts they engage in, and the states that they fight against influence how groups use suicide terror. Questions this type of theory could help answer include what determines how much groups engage in suicide terror, their targeting choices with suicide attacks, and how much groups use suicide attacks compared with other terror tactics. In the following chapter, I will develop theoretical propositions to test these questions, based on how processes of organizational development in groups and the amount of state military and security pressure placed upon them influences how groups use suicide terror, as well as how much they rely upon it.

CHAPTER 3

THEORY: GROUP AGE, STATE MILITARY CAPABILITY, AND MODELS OF SUICIDE TERROR

Summary of Argument

This study will explain and test the propositions that the age of non-state armed groups and the capability of the state military they face determine the scale of use and targeting selection of their suicide attacks. As a group ages, it will carry out a decreased number of suicide attacks, but increase its focus on attacking hard targets, due to older groups being more likely to possess skilled terror operatives and to follow traditional guerrilla warfare practices. Groups that begin using suicide terror at an older age will carry out a decreased number of suicide attacks compared with those that started using it at a younger age, due to groups relying on established organizational practices and procedures. Increases in state military capability will lead groups to carry out an increased number of suicide attacks, increase their focus on attacking soft targets, and become more reliant on suicide terror overall. These changes in group use of suicide terror are predicted to occur due to the increased military pressure on the group decreasing the effectiveness of its individual attacks, reducing its ability to attack hard targets and train operatives, and increasing its sense of desperation. These two key variables, non-state armed group age and state military capability, and how they impact group usage of suicide terror will be explained below in this chapter.

There exists two "ideal types" of approaches to the use of suicide terror that represent opposite ends of the spectrum in the scale of use and targeting decisions. The

first is the "traditional" approach, based on classic principles of guerrilla warfare, characterized by the selective use of suicide attacks by highly-trained operatives against targets of high strategic value. Examples of this type of suicide terror include Hezbollah's 1983 bombing of the U.S. Marine barracks in Lebanon, Al-Qaeda's 9/11 attacks, and the LTTE assassinations of former Indian prime minister Rajiv Gandhi and Sri Lankan president Ranasinghe Premadasa. The second ideal type of suicide terror is the "industrialized martyrdom" approach which originated during the escalation of the Second Palestinian Intifada in 2001. This approach is characterized by the mass use of suicide attacks by lightly-trained operatives against targets of low strategic value, and is a defining characteristic of modern suicide terror campaigns. Examples of this type of suicide terror include attacks by Hamas on pizza parlors and discotheques, the Taliban's use of child suicide bombers, and AQI/ISIL's use of radicalized foreigners with little military experience for repeated suicide attacks against schools, marketplaces, and remote villages (Fraser 2017; Milton-Edwards and Farrell 2010, 144; Siefert and McCauley 2014, 816; Wander 2010). The phenomenon of industrialized martyrdom occurs when non-state armed groups 1) Are newly-formed or lack established practices of traditional guerrilla warfare and/or 2) Face a large or increasing gap in capability with the state military they are fighting against.

Asymmetrical Warfare Theory, Tactics, and Targeting Choice

It is a widely established principle in the terrorism literature that terror is a "weapon of the weak" (Bloom 2005, 6, 40, 89; Crenshaw 1981, 387; Fortna 2015, 527, 532). Non-state armed groups would prefer to have a conventional army at their disposal

that could directly challenge and destroy the state military which would enable them to overthrow a government and seize power for themselves. Given that this is rarely the case, especially in the earlier stages of a conflict, groups have to choose the most effective available tactics while being under significant constraints in power and resources in comparison with the state they are challenging. Therefore, the second-best option for groups is engaging in traditional guerrilla warfare or insurgency and attempt to slowly gain public support, wear down government forces, and build up their own military strength with the goal of eventually forcing a conventional showdown with the state. Groups that are weaker still would have to focus on terror tactics to draw attention to their cause and enlist more members that would enable them to "graduate" to traditional guerrilla warfare and insurgency tactics.

This conceptualization of non-state armed group development described above is consistent with theories of asymmetrical warfare advocated by its most famous practitioners, such as Mao (1989) and Guevara (1961). In the narrative of rebellion described in their writings, groups start as small bands operating out of rural base areas carrying out low-level acts of sabotage or harassment of government forces, and use these early activities to gain support to build themselves up into a proper insurgency, with the eventual goal of gaining conventional military capability in the final stages of the conflict (Byman 2016, 146). Groups first need to consolidate their control of the rural countryside and gradually encircle the major cities before commencing their final assault (Lin 1965). A non-state armed group can typically only seize power once it possesses a conventional military capability that rivals the state's, which is what occurred in cases such as the 1949 Communist victory in China and the Cuban Revolution (Butler and Gates 2010, 10).

Given these successes, this model of guerrilla warfare and insurgency became the main inspiration and primary approach among non-state armed groups during the Cold War-era, especially in the so-called Third World (Malley 1996).

The stage of development that a group is in impacts its human resources, organizational capacity, and material capabilities, which in turn impact the type of operations they can engage in. Butler and Gates (2010, 1-2) argue that aggrieved groups choose between "suffering a disadvantageous peace, engaging in unconventional warfare, or engaging in conventional warfare." They further divide unconventional warfare between guerrilla warfare and terror, with the weaker groups forced to rely on terror tactics until they can gain enough recruits to begin guerrilla warfare (1-2, 10). Byman (2006, 84-85) also makes this division, noting that the Provisional Irish Republican Army and Hamas sought to "upgrade" their tactics from terror to guerrilla warfare, but failed due to lacking the organizational capacity.

Just as there are distinctions between conventional warfare, unconventional warfare, guerrilla warfare, and terror, there are distinctions within the use of terror itself and what form it takes. Therefore, the concept of preference order of tactics can also apply to terror attacks and how groups choose their targets. Groups employing terror tactics can choose between suicide and non-suicide attacks and between attacking hard targets (highly-secured, high value targets) and soft targets (lightly-defended, low-value targets). Using suicide terror entails substantial costs to a group. In addition to sacrificing the deployed operatives, suicide attacks are almost universally condemned, invariably results in a group being labeled "extreme," and likely will subject a group to terrorism

bans and sanctions.[5] Therefore, in choosing terror tactics, groups should prefer non-suicide over suicide attacks. The circumstances in which groups would use suicide attacks include situations where they face a gross asymmetry in power with the state military they are fighting against and need an unconventional force multiplier, or where they believe that a suicide attack is required for reaching a well-defended strategic target. The original intention behind suicide attacks was for reaching hard targets that non-suicide attacks could not successfully destroy (Horowitz 2010b, 179).

Mao and Guevara's model of guerrilla warfare and insurgency is silent on the use of suicide terror, as it had not yet been invented in its modern form at the time of their writings. However, they gave clear guidelines against targeting civilians. Their theory of gaining political power depends on earning the support of the rural peasantry and attacking them goes directly against this goal. Mao (1989, 92-93) wrote:

> Many people think it impossible for guerrillas to exist for long in the enemy's rear. Such a belief reveals lack of comprehension of the relationship that should exist between the people and the troops. The former may be likened to water the latter to the fish who inhabit it. How may it be said that these two cannot exist together? It is only undisciplined troops who make the people their enemies and who, like the fish out of its native element cannot live.

This is similar to the argument of T.E. Lawrence (2014) that "rebellions can be made by 2 percent active in a striking force, and 98 percent passively sympathetic." Attacking military targets signals strength and that a group is attempting to follow the laws of war and act as a serious military organization, which potentially allows it to gain broader political appeal. Attacking civilian targets signals that a group lacks military capacity and

5. The majority of non-state armed groups on the US State Department's list of Foreign Terrorist Organizations have engaged in suicide terror (START 2021a; US Department of State 2021). The list can be accessed here: https://www.state.gov/foreign-terrorist-organizations.

has an extremist ideology, which potentially limits its political appeal. A non-state armed group is more likely to draw supporters to its cause and less likely to anger the public by attacking targets such as high-ranking military or security officials as opposed to marketplaces and restaurants (Brooks 2021; Kaltenthaler et al. 2010; Sánchez-Cuenca and de la Calle 2009).

These sources and analyses demonstrate that groups focusing on terror tactics should prefer attacking hard targets to soft targets. Despite the strong incentives for groups to refrain from civilian targeting, nevertheless, the depredation of civilians by groups in asymmetrical conflicts often occurs. Groups may target civilians due to a perceived need to punish or deter civilian defectors from their cause (Kalyvas 1999), the low quality of their recruits (Weinstein 2005), a desire to generate publicity to increase recruitment and funding (Hellmueller, Hase, and Lindner 2022, 147-149; Hovil and Werker 2005), to spread chaos and weaken state authority at cheap cost (Hultman 2007), and attempting to recover material losses through looting (Wood 2014). A key theme that unites this literature is that when groups target civilians it is a sign that they are in a weak position, whether due to being newly-established, lacking organizational experience or skilled operatives, or facing a large and growing gap in military capability with the state they are fighting against.

The decision calculations by non-state armed groups in whether to attack hard or soft targets also applies to the use of suicide terror. As with non-suicide attacks, suicide attacks against hard targets should be preferred over those against soft targets. Finally, the "traditional" type of suicide terror of attacking hard targets with highly-skilled operatives should be preferred over the industrialized martyrdom type of attacking soft

targets with low-skilled operatives. There are also of course substantial reputational costs both domestically and internationally in engaging in mass-violence against civilians. On the other hand, weak or newly-established groups can benefit from employing industrialized martyrdom, as headline-grabbing suicide terror campaigns against civilians can raise their public profiles and undermine state stability. Groups may also resort to industrialized martyrdom if they cannot spare the experienced operatives necessary to attack hard targets, and/or they are facing a highly capable military against which attacks would be overly costly and ineffective.

Overview of Theoretical Mechanisms

This study argues that non-state armed group age and state military capability are the key factors that determine how groups use suicide terror, in terms of scale, targeting selection, and reliance. Older groups are more likely to have had the time and capacity to train or recruit skilled terror operatives in comparison with younger groups. Based on the discussion in the previous section of the process of group development, older groups are also more likely to follow traditional guerrilla warfare practices and even possess conventional military capabilities than are younger groups. Younger groups have less capacity to conduct traditional guerrilla warfare and to develop conventional military capability and have more incentives to employ suicide terror and target civilians. This means that as groups increase in age, they are predicted to carry out less total suicide attacks and a higher proportion of their suicide attacks against hard targets. As older groups are likely to have a greater supply of skilled operatives than younger groups, each of their individual terror attacks are likely to be more effective, so they can carry out an

effective anti-state campaign with a fewer number of attacks. Skilled operatives are better able to attack hard targets than unskilled operatives, so a group that has a sufficient supply of skilled operatives can focus more of their efforts on attacking hard targets. Older groups have also had more time to gain experience in and develop practices and procedures for conducting traditional guerrilla warfare and in certain cases conventional warfare, which should lead them to reduce their use of suicide of terror and attacks on civilians.

A countervailing mechanism to the concept of progressive group development over time is that once organizations develop established practices and procedures, they are often resistant to change. Olson (1982, 38-41, 62-63, 65, 74-80, 84, 147-150, 152) argues that as organizations age, interest groups develop within them that gain the institutional power to stop the adoption of innovations. Organizations become increasingly bureaucratic over time, which also limits their capacity to change their past practices and procedures (69-71, 75). These dynamics make older organizations less innovative than newer organizations (62-63, 65, 74, 125, 147-148). Horowitz (2010b, 28) similarly argues that as organizations get older, they tend to generate "bloated bureaucratic structures" that stifle change. In applying this argument to military organizations, he contends that unless they endure "serious upheavals," they will tend to become more bureaucratic and less innovative as they age (19, 28).

Therefore, the tactics that non-state armed groups use most frequently during the crucial early years of their development are ones they are most likely to rely on for the rest of their existence. The patterns of behavior established in the early years of the group harden over time into their tactical and strategic doctrines. Groups that established

themselves using traditional guerrilla warfare are likely to prefer tactics such as hit and run ambushes and acts of sabotage, over more unconventional and extreme tactics, including suicide attacks on civilian targets. On the other hand, groups that established themselves using unconventional tactics are more likely to continue to prefer using them over traditional guerrilla warfare practices with which they have less experience. They are more likely to choose the tactics which they have used more often in the past and which have brought them a degree of success. This dynamic should lead groups that started using suicide terror early on after their establishment to continue to use the tactic, while groups that adopted it later on should have less attachment to it, as it never became a regular part of their repertoire of tactics.

Increased state military capability allows a government to harden potential terror targets and increase pressure on non-state armed groups to disrupt their operations. Therefore, increases in state military capability are predicted to result in groups carrying out more total suicide attacks, a higher proportion of their suicide attacks against soft targets, and having an increased reliance on suicide terror. Greater state military capability reduces the effectiveness of individual terror attacks and makes hard targets more difficult to attack, so groups will have to both increase their number of attacks and focus on soft targets to carry out an effective anti-state campaign. Increased military pressure on a group also reduces its capacity to train terror operatives, limiting both the impact of its individual attacks and its ability to effectively attack hard targets. Increases in state military capability also increase the asymmetry in power between the state and

the group, which can force the group to resort to a desperate tactic like suicide terror.[6] The specific dynamics of how non-state armed group age and state military capability impact group use of suicide terror will be explained in the following sections.

Group Cost-Benefit Calculations, Tactics, and Targeting Decisions

A core assumption of this study is that non-state armed groups are rational and weigh the expected benefits and costs of carrying out terror attacks before proceeding with them. The expected benefit to a group from an attack is based on the damage it causes and the perceived value of the target to the group, and also varies with the probability of the attack succeeding. The expected cost includes the financial expense to the group in carrying out an attack, including the cost of training operatives, funds for organizing and planning attacks, projected group casualties in an operation, and potential reputational costs to the group if the attack causes public relations fallout. The expected costs and benefits for the group vary based on the skill level (in terms of abilities as a guerrilla fighter/insurgent) of the operative(s) tasked with executing the attack, the hardness (level of security protection) of the intended target, the probability of the attack succeeding, and the perceived value of the target based on its strategic, economic, or symbolic importance.

Training high-skilled operatives requires more investment on behalf of a non-state armed group, and high-skilled operatives, whether trained or recruited by the group, have greater value for the group than low-skilled operatives. Therefore, an attack carried out by a high-skilled operative is expected to result in more benefit (damage from the attack)

6. To illustrate how this dynamic works, Japan began using *kamikaze* suicide pilots in World War II in October 1944, by which time it was decisively losing the war to the Allies (Bloom 2005, 13-14).

to the group than one carried out by a low-skilled operative, and the loss of a high-skilled operative in an attack represents more of a cost to the group than the loss of a low-skilled operative. In addition, attacks by high-skilled operatives are expected to have a higher probability of success than those by low-skilled operatives due to the former's higher competence. Attacks on hard targets, such as military installations and high-level government officials, carry a higher cost to groups than that of attacks on soft targets, such as a marketplace or restaurant. Planning and executing an attack on a hard target is more expensive and will cost the group more casualties than an attack on a soft target. Hard targets are also expected to incur less damage from attacks than soft targets due to the former's enhanced security. Target hardness affects whether a group will employ a skilled or unskilled operative in an attack. Skilled operatives have far more of a chance than unskilled operatives in successfully attacking hard targets, while unskilled operatives are likely to be sufficient for attacking soft targets. Only trained pilots could have successfully attacked the Pentagon on 9/11, but a suicide belt can be easily strapped to an impoverished youth to have them attack an unguarded marketplace.

There is also a link between target hardness and the value of the target to the group attacking it. Hard targets, such as high-ranking government officials and strategic military targets are likely to be considered higher value targets to attack for groups than soft targets, such as nightclubs or cafés. Attacks against higher value targets have a lower probability of success and these targets will tend to take less damage due to being more heavily defended. They are also more likely to require a skilled operative for the attack to be successful. For example, military installations tend to be fortified structures built to defend against physical damage from attacks and will be manned by trained soldiers.

Therefore, only operatives with a high degree of military training would be able to execute attacks against them, and there is the possibility of a military engagement (the target fighting back), which will result in casualties for the group.

Attacks against lower value targets have a higher probability of success and these targets will tend to take more damage due to being less defended. They can also be successfully attacked with unskilled operatives. Suicide bombings of Iraqi marketplaces by radicalized foreign fighters with minimal training and who only needed to follow simple instructions routinely resulted in hundreds of casualties. The unsuspecting shoppers could not fight back, so the only likely loss to the group were low-level operatives whose deaths did not represent much of a cost to the group. To sum up the key point, the expected gain for a group in attacking a hard target is greater than an attack on a soft target, but the probability of success is lower and the expected costs are higher. In contrast, the expected gain for a group in attacking a soft target is less than an attack on a hard target, but the probability of success is higher and the expected costs are lower. Therefore, the potential expected gain to the group in carrying out a terror attack will vary based on the target hardness/target value and the skill of the operative carrying out the attack, which is summarized in table 1.

In ranking the expected benefit from terror attacks, the smallest is from attacks by low-skilled operatives against hard/high-value targets, followed by low-skilled and high-skilled operatives against soft/low-value targets, with the most benefit expected from attacks by high-skilled operatives against hard/high-value targets. Attacks by low-skilled operatives against hard/high-value targets have the least expected gain, because using this

Table 1

Range of Expected Gains from Terror Attack

		Hardness/value of target: soft	Hardness/value of target: hard
Skill of operative	low	medium	low
	high	medium	high

lowest-level operative against the most heavily guarded targets is unlikely to be very effective and presumed to fail. Attacks by low-skilled and high-skilled operatives against soft/low-value targets have the second-most expected gain. While there is a greater chance of effectiveness in using low-level operatives against lightly-guarded targets than against heavily-guarded targeted targets, the former target types are more likely to be of less strategic value. Using high-skilled operatives against soft targets is likely to result in successful attacks, but given these targets have little to no defense, the skill of the operative is likely to have little bearing on the attack's effectiveness, which is why attacks by both skilled and unskilled operatives against soft targets are listed in the table as having the same expected gain. This is why groups such as the Taliban have been willing to use children and individuals with mental disabilities to attack soft targets (Fraser 2017; Wilkins 2011, 18). It costs a group little materially to sacrifice individuals with little skills or training, so it makes more sense for a group to use these individuals

rather than waste veteran guerrilla fighters against soft targets. Using a veteran guerrilla fighter, a rare and valuable human resource, to attack a soft target is inefficient—the potential gains are similar if an unskilled operative would be used and the potential costs are higher if the veteran is lost.

Finally, the greatest expected gain is from attacks by high-skilled operatives against hard/high-value targets, as these operatives will have the best chance of successfully inflicting significant damage against the most heavily guarded targets. For this reason, the LTTE sent a Black Tiger commando team to attack Sri Lankan's main air base and used an undercover operative to infiltrate President Premadasa's inner circle to carry out his assassination (Gunaratna 2001; Hoole 2014). These types of targets have the most strategic value, and it is the most efficient use of a group's most valuable and limited human resources to deploy its skilled operatives against them. Only LTTE operatives of this caliber could have destroyed much of Sri Lanka's air force with a sophisticated assault or spent the time needed to earn the trust of its president's security detail (Gunaratna 2001; Hoole 2014). It would also be wasteful and inefficient of the LTTE to send operatives of this level against soft targets when it could draw from the thousands of child soldiers it possessed for those types of attacks (Bloom 2005, 60, 65; Human Rights Watch 2004). The range of expected gains from terror attacks illustrated in the table matches up with the preference order for non-state armed groups in which strategy to pursue against a state, based on their human and material resources and military capabilities. Groups would prefer to focus on attacking hard targets over soft targets, as hard targets are the most important strategic state targets that they would need to destroy in their bid to topple the state or seize power. They gain far more from

successfully attacking an individual hard target than they do from destroying an individual soft target.

The range of expected gains for groups from terror attacks based on the hardness of the targets and the skill of the operatives deployed shows how there are two potential "ideal types" of suicide terror. One type is categorized by campaigns of suicide terror that consist of selective, high-impact attacks against high-value targets, as was done by the LTTE in its fight against the Sri Lankan government. The other type conducts suicide terror campaigns that include frequent and indiscriminate attacks against low-value targets, as done by AQI/ISIL against US occupation forces and the Iraqi government. These two types can be analogized to firms that produce artisan goods and those that manufacture mass-produced goods.

If non-state armed groups are conceptualized as firms that are in the business of "producing" attacks, then depending on their experience and capability some will follow an artisan production model focused on creating "high-quality" attacks (attacks by skilled operatives against important state targets) while others will follow a mass-production model focused on creating "low-quality" attacks (attacks by unskilled operatives against less important state targets). The firm that produces an artisan good manufactures a small number of it and makes a profit by receiving a high return from each one due to its high quality. The mass-production firm in contrast manufactures more of a good, and makes a profit by selling it in bulk, while making less of a return on each individual item due to its low quality. Therefore, with respect to non-state armed groups, those that specialize in high-quality attacks are expected to carry out less total attacks, a higher proportion of attacks against hard targets, and a lower proportion of attacks on soft targets, while those

that specialize in low-quality attacks are expected to carry out more total attacks, a lower proportion of attacks against hard targets, and a higher proportion of attacks on soft targets.

Established groups that have high-skilled operatives in reserve and/or those facing low-capability state militaries are more likely to adopt the traditional, artisan type. Inexperienced groups lacking high-skilled operatives for suicide attacks and/or those facing highly capable state militaries are more likely to adopt the industrialized martyrdom, mass-production type. Depending on the fortunes of a group during the course of its conflict with a state, it may switch from one mode of suicide terror to the other. While the Mao/Guevara model of guerrilla warfare envisions insurgency and non-state armed group development as linear processes, they are in actuality dynamic. Changes in the amount of resource endowments and expertise it possesses and the capability of the state military it is fighting may lead it to switch its tactics. A new group or one that has had its resources depleted may be forced to resort to industrialized martyrdom, while a group that through time and success has built up human and material resources may change from using industrialized martyrdom to a focus on more limited and strategic suicide attacks that characterize the traditional type of suicide terror.

Groups with limited resources and capabilities in guerrilla warfare and insurgency can either choose not to fight or they can potentially turn to a mass-production model of suicide terror. As a new group matures and evolves, gains power and resources, and is able to train and recruit higher-skilled operatives it may change from the mass-production model of suicide terror to the artisan production model. In contrast, if a group has its resources degraded over the course of a conflict due to state military offensives or

counterinsurgency campaigns it may be forced to switch or "devolve" from the artisan production to the mass-production model. For example, when the Taliban faced an increase in U.S. troop levels in 2009-2012, it substantially increased its suicide attacks on soft targets, and when the extra troops were withdrawn it switched tactics and shifted to attacking an increased proportion of hard targets (North Atlantic Treaty Organization [NATO] 2021; START 2021a; van Linschoten and Kuehn 2012, 292).

None of what has been discussed here argues that groups will only use suicide attacks against either hard or soft targets, solely. The two ideal types of groups represent opposite ends of a spectrum, and in reality groups will conduct a mixture of attacks against hard and soft targets. Taking into account this nuance, most groups will focus on a particular type of suicide terror based on their experience and the capability of the state military they are fighting against. To sum up, groups that specialize in high-quality attacks are expected to carry out less total attacks, a higher proportion of attacks against hard targets, and a lower proportion of attacks on soft targets, while those that specialize in low-quality attacks are expected to carry out more total attacks, a lower proportion of attacks against hard targets, and a higher proportion of attacks on soft targets. The key variables that impact which type of suicide terror groups will specialize in are group age and state military capability, and the dynamics by which they do so will be explained in the following sections.

Group Age, Terror Operative Skill, and Organizational Practices

Group age is related to the skill of terror operatives available to groups, as over time they are able to build up a force of skilled cadres that they can use to carry out more

complex operations. Training skilled terror operatives is a time and resource-intensive process. Groups are unlikely to have large numbers of skilled operatives at the start of their existence. They require time to build up such a force, both in the training process and in getting their operatives experience by having them carry out attacks. Over time, they also learn which training methods are the most effective and can develop practices and procedures for producing skilled operatives. The trainers themselves need time to be trained to produce a corps of experienced officers that can pass their experience on and create a self-perpetuating system that can mold raw recruits into effective guerrilla fighters. Time also impacts the ability of groups to recruit. A newly-established group lacks a reputation so it may struggle to attract top "talent." It needs time to develop a reputation as an effective and politically legitimate representative of its claimed constituency to recruit individuals genuinely committed to the cause as opposed to "opportunistic joiners" who are mainly motivated by material rewards (Weinstein 2005, 599, 610-617). Time is also required to cultivate ties within potential communities of support (which can be local but also global, i.e., online) to generate a sufficient flow of recruits.

Once a non-state armed group has either developed or recruited a corps of skilled fighters, it has the capability to attack harder state targets. This is because as operatives increase in their skills in guerrilla fighting and insurgency, they are able to more effectively carry out attacks. They become more capable of carrying out sophisticated operations and inflicting massive damage on their intended targets. Benmelech and Berrebi (2007) and Benmelech, Berrebi, and Klor (2012) find this to be the case and demonstrate in their work that suicide attacks carried out by high-skilled

bombers cause more damage than those carried out by low-skilled bombers. The hardness of a potential terror targets affects whether a group will employ a skilled or unskilled operative in an attack. Benmelech and Berreibi (2007, 228-230) find that Palestinian groups sent their older and better educated suicide bombers to attack more important Israeli targets. Skilled operatives are far more likely than unskilled operatives to succeed in destroying hard targets, while unskilled operatives are likely sufficient for pulling off attacks on soft targets.

The skill of the terror operatives available to non-state armed groups impacts both the number and type of targets it will attack. If a group has many skilled operatives available, it will not need to carry out many attacks to have a large effect, since it expects each of their attacks to inflict a great deal of damage. In other words, groups that possess skilled terror operatives will be able to carry out effective terror campaigns with few attacks, because each of their attacks will have a large expected impact. Hezbollah had Iranian-trained operatives at its disposal and used them to great effect—forcing U.S. and international forces to withdraw with a small number of high-impact, high-profile suicide attacks (Horowitz 2010b, 182; Ricolfi 2006, 86-88). The 9/11 attacks, which did vast damage to the U.S. economy and government, were carried out by Al-Qaeda, an organization led by individuals with experience fighting the Soviets in Afghanistan. The hijackers themselves succeeded in carrying out the deadliest terror attack in history due to the specialized training they received at Al-Qaeda training camps in Afghanistan and at flight school in the United States (Gerges 2011, 86-87). This type of group is capable of attacking a higher proportion of hard targets out of their total attacks and inclined to attack a lower proportion of soft targets, because they would have the capability to carry

out more high-impact attacks against important state targets. An increased focus on attacking hard targets would also result in a lower number of attacks overall, as there are less potential hard targets than soft targets.

If a group does not have a large supply of skilled operatives and has to rely on unskilled operatives, it will need to carry out more attacks to be effective, because each of its attacks will be projected to inflict less damage. Low-skilled operatives are less able to carry out complex operations, so each of their individual attacks will have a smaller impact. This provides part of the explanation for why AQI/ISIL and the Taliban, who have a history of using unskilled suicide bombers, have carried out by far the most suicide attacks of any group (START 2021a). This type of group would also be expected to attack a lower proportion of hard targets and a higher proportion of soft targets, because they would have limited capability to successfully attack important state targets due to the skill level of its operatives. An increased focus on soft targets would also result in more attacks overall, as potential soft targets greatly outnumber hard targets.

Older non-state armed groups are more likely to possess skilled terror operatives than younger groups, which allows them to conduct suicide terror campaigns that consist of selective, high-impact attacks against high-value targets. For example, the LTTE carried out its first suicide attack on a military base in 1987, fifteen years after its 1972 founding (Hopgood 2006, 47, 49; Horowitz 2010b, 198; Staniland 2014, 148). By the time it started using suicide terror, it had taken the time to build up skilled cadres that it could use to successfully carry out selectively-targeted attacks against high-level political, economic, and military targets. The group built an elite unit known as the Black

Tigers specifically for conducting suicide attacks against high-value targets (Horowitz 2010b, 180, 198; Pedahzur 2005, 24, 41, 173).

In contrast, younger groups are less likely to possess skilled operatives, forcing them to conduct suicide terror campaigns that consist of frequent and indiscriminate attacks against low-value targets. This is illustrated by the case of AQI/ISIL, which had only existed as a group for four years under its original name Jama'at al-Tawhid wal-Jihad (Monotheism and Jihad Group) before it joined the Iraqi insurgency against the American occupation in 2003, and that same year began conducting suicide attacks (Gerges 2011, 107; 2021, 61-63; Mapping Militant Organizations [MMO] 2021). It had not had much time to recruit and train its forces before challenging the US military. At the start of the insurgency, jihadi Salafi groups in Iraq like AQI/ISIL lacked the popular support base of more moderate Sunni nationalist factions, and had limited access to recruits with military experience (Hafez 2006b, 611). These groups especially rely on foreign recruits, who lack the on the ground experience in Iraq necessary to be effective guerrilla fighters (611). AQI/ISIL's reliance on these on lightly-trained, often foreign fighters led it to expand the use of the tactic to repeatedly attack any lightly-guarded target of opportunity, with no regard to its remoteness or negligible strategic value (Gambetta 2006, 308, 311; Hafez 2006b, 611). This is reflected by its waves of attacks against lightly-defended soft targets, including marketplaces, houses of worship, minority religious communities, and construction sites (START 2021a).

The other major mechanism by which the age of non-state armed groups impacts their use of suicide terror is in how it influences organizational practice and procedures. As groups age, they have the time to develop established traditions of guerrilla warfare

and insurgency, and in some cases they may develop or acquire a conventional military capability, due to their past combat experience and the experience and training of their fighters. The archetype of this type of group are left-wing Marxist and nationalist guerrilla groups that came to prominence during the 1960s through the 1980s and followed the traditional Maoist organizational model, such as the Revolutionary Armed Forces of Colombia (FARC) and the National Liberation Army (ELN) in Colombia, the Shining Path in Peru, and the LTTE in Sri Lanka. In contrast with well-established groups that have decades of combat experience, newer groups have not yet had the time to practice sophisticated tactics and develop military capabilities, which limits the types of operations they can carry out. They are at a lower stage of development in the Mao/Guevara model of guerrilla organizations. Groups in this situation that seek to influence a conflict, such as AQI/ISIL when it initially joined the Iraqi insurgency, have an incentive to engage in unconventional tactics, including suicide terror and attacks on civilians, as these attacks draw attention to themselves and undermine governmental authority.

The past use of suicide terror by groups also impacts their tactical decision-making on whether and how they conduct further suicide attacks. Groups that lack a previous history of conducting suicide attacks are less likely to adopt the tactic in the first place, as it would be out of step with their established practices and procedures. For example, the FARC and ELN in Colombia, who were both founded in 1964, established themselves using traditional guerrilla methods of fighting and refrained from using suicide attacks for decades (Asal and Rethemeyer 2015; Kalyvas and Sánchez-Cuenca 2006, 211, 226). The FARC carried out its first suicide attack in 2003, and followed this

up with one more in 2004, but it did not use the tactic again before ending its armed campaign in 2017 (BBC 2017; START 2021a). The ELN carried out its first, and to date only suicide attack in 2019 (START 2021a). In both of these cases, groups with a long history of traditional guerrilla warfare used the tactic very sparingly, and did not make it part of their normal repertoire of violence. This attack record makes sense for both of these groups, as they had been already been fighting for 17 years when the first modern suicide attack was carried out in 1981, so their tactical and strategic doctrines had likely been well-established by the time this new form of the tactic debuted on the battlefield. This would make it difficult for them to integrate suicide terror into their repertoires even if they believed it would be effective.

The prediction that "mature" non-state armed groups will carry out less suicide attacks in comparison with newly-formed groups is also illustrated by the cases of Hezbollah and Hamas. Both of these groups are famous users of suicide terror, but moved away from the tactic when they developed and acquired conventional military capability in the forms of their vast missile and rocket arsenals (Sharp et al. 2006, 10-11; Popovich 2014). Hezbollah did not use suicide attacks during its 2006 war with Israel, despite having plenty of opportunity to do so and coming into direct contact with Israeli troops. Instead, it effectively ambushed Israeli tank columns with anti-tank guided missiles, foreshadowing tactics that Ukrainian infantry would use against Russia in its 2022 invasion (Lendon 2023; Sharp et al. 2006, 10-11). Hezbollah even successfully hit the Israeli navy's flagship with an anti-ship missile, knocking it out of the war (Greenberg 2007). Hamas also did not use suicide attacks during its 2008 and 2014 wars with Israel, despite fighting against direct Israeli ground incursions into Gaza (Petrilli 2018, 142-

163). Instead, it used its network of tunnels inside Gaza to conduct ambushes and launched thousands of increasingly sophisticated rockets on Israeli cities (142-163).

In the case of the LTTE, which will be the focus of my analysis in chapter 5, the group took its time to train in guerrilla warfare before it began its armed campaign in earnest, carrying out its first major attack on government military forces in 1983, eleven years after its 1972 founding (Hopgood 2006, 47-48; Staniland 2014, 148, 155). Therefore, by the time it engaged in open warfare against the Sri Lankan government, the LTTE had already developed robust practices and procedures for guerrilla warfare and insurgency, influencing the pattern of its armed activities throughout the civil war. It conceptualized itself as the conventional military of a nascent independent Tamil state, even acquiring its own navy and air force (Bloom 2005, 60; Bose 2007, 51; Hashim 2013, 189). With respect to its use of suicide attacks, it viewed them foremost as an effective military tactic, and their aim was "primarily to win the war, not to spread terror" (Hopgood 2006, 55).

This policy is reflected in its attacks against strategic targets, including one of Sri Lanka's main harbors, and the country's main oil depot and Central Bank (Hopgood 2006, 55). These attacks are consistent with the original purpose of suicide terror, which was the destruction of targets that non-suicide attacks would have difficulty reaching (Horowitz 2010b, 179). They had a conventional military purpose, though the means of delivery was unconventional. A focus on strategic targets indicates a selective and limited use of suicide terror, given that these targets are relatively few in number. This is supported by the LTTE's claimed casualty figures: out of 19,877 fighters killed in action

from 1982-2007, only 322 (1.6%) were Black Tiger suicide commandos (Athas 2007; *TamilNet* 2007).

In contrast, groups that are early adopters of suicide terror are more likely to continue to use suicide attacks at a high rate, as it would be consistent with their tactical and strategic doctrines. The case of AQI/ISIL, which will be the focus on my analysis in chapter 6, illustrates how this dynamic works. AQI/ISIL was founded in 1999, long after suicide attacks had become a globally famous and influential tactic (MMO 2021). In addition, it carried out its first suicide attack in 2003, four years after its founding and one year after its first recorded attack in the GTD (MMO 2021; START 2021a). Therefore, from the start of its involvement in the Iraqi insurgency against the US occupation, it had already integrated suicide attacks into its repertoire which would presage its mass-use of the tactic.

Newly-established, "immature" groups, like AQI/ISIL at the start of the Iraq War have more strategic incentives to make widespread use of suicide terror, and also have less viable conventional alternatives to the tactic. AQI/ISIL had little experience in guerrilla warfare and insurgency before deciding to fight the US military against which it would be at a large conventional disadvantage. The group's founder and first leader, the Jordanian jihadist Abu Musab al-Zarqawi, crossed into Iraq from Iran with 30 followers (Gerges 2011, 107; 2021, 67-68). Before the US invasion of Iraq, Zarqawi's small outfit only had one recorded attack in the GTD, the fatal shooting in 2002 of an American diplomat working for USAID in Amman, Jordan (START 2021a). For groups that lack experience in complex operations, carrying out repeated suicide attacks against any available target gains them disproportionate attention and sows chaos, decisively

impacting the conflict even if their direct political support or influence is small (Gerges 2021, 86-87; Hafez 2006b, 611; Weiss and Hassan 2016, 31, 53). AQI/ISIL's suicide terror campaign stymied American efforts to set up stable Iraqi government, especially its repeated attacks on Shia civilians and holy sites which plunged the country into sectarian civil war (Hafez 2007, 75-78, 82-83). A focus on these kinds of soft targets indicates a widespread and indiscriminate use of suicide terror, as these target types are far more plentiful than hard and strategic targets. The figures on AQI/ISIL suicide attacks bear this out: 1,612 attributed attacks from 2003-2019 (START 2021a).

State Military Capability and Group Activity

Besides group age, the other major variable that impacts group use of suicide terror is state military capability. This is the most important factor impacting the hardness of potential terror targets and indicates the level of state military and security activity aimed at non-state armed groups. Examples of state target hardening include Israel building a security barrier in the West Bank and East Jerusalem in response to Palestinian suicide bombings to block terror operatives from entering Israel, and the US military installing checkpoints and blast walls in Iraq around sites commonly targeted by insurgents (Baconi 2018, 63; Ricks 2009, 173). Increased military pressure and target hardening also imposes increased costs on non-state armed groups in carrying out their activities, degrades their capabilities, and makes it more difficult for them to attack high-value targets.

In modern counter-terror and counter-insurgency campaigns, states such as Israel and the US have aggressively targeted group leaders for assassination, removing key

commanders and forcing groups to spend more time and resources on their own security. Groups under increased pressure also struggle to focus on training their fighters, limiting the skill level of their forces and the ensuing complexity of the operations they can carry out. The conflict literature demonstrates that groups in this situation are more likely to victimize civilians. Kalyvas (1999) argues that when groups are losing a conflict with the government they target civilians to deter members of their political support base from defecting to the government side. Hultman (2007) finds that when groups lose on the battlefield they attack civilians to impose costs on the government and improve their bargaining position. Wood (2014) demonstrates that material losses lead groups to prey on the civilian population to recoup their lost resources.

On the other hand, groups facing weak state militaries can conduct guerrilla activities and train their operatives with little state interference. The LTTE rose to prominence in a restive security environment in which the Sri Lankan government was already struggling to deal with both communist rebels and multiple other Tamil non-state armed groups, allowing the group to develop under a relatively low level of state military and security pressure (Staniland 2014, 143-144, 148; Swamy 2002, 18). Therefore, by the time it began its armed campaign in earnest it was prepared for attacking military targets. In contrast, AQI/ISIL entered the conflict in Iraq as a relatively new group and almost immediately found itself in combat with a well-trained and well-equipped US military. It therefore needed to focus on organizational survival and staying in the fight, which reduced the time and resources available to develop its cadres, in turn limiting its ability to attack hard targets.

A group facing a weak state military will be able to carry out effective campaigns with few attacks, because each of its attacks will have a large expected impact due to a lack of both state resistance to the group's activities and state investment in target hardening. In this permissive security environment, high-value hard targets will also be more vulnerable, allowing the group to focus its efforts on them. As there are fewer high-value hard targets than low-value soft targets, the group's terror campaign can be effective with fewer attacks. Conversely, an increase in state military capability reduces the expected impact from an individual terror attack. More capable state militaries are more effective at target hardening and counter-insurgency and counter-terror operations, which reduce the damage caused by individual attacks, and increases operational costs to the group such as the casualties it suffers in carrying out attacks. Measures like security checkpoints and blast walls reduce the chance of terror attacks succeeding and blunt their impact.

Groups facing a high level of state military pressure will need to carry out more attacks to conduct effective campaigns, because each of their attacks will be less effective, due to target hardening and personnel loss. In a heavily-securitized environment, high-value hard targets become increasingly unreachable for groups, forcing them to focus more of their efforts on attacking more vulnerable soft targets. As soft targets are more numerous than hard targets, the group will need to carry out a larger number of attacks for its terror campaign to be effective. This can been seen in the case of ISIL when it rapidly lost territory in 2016-2017 due to a massive offensive by an international coalition and local forces on the ground, and it responded by escalating its suicide attacks on soft targets to an unprecedented level (Jones et al. 2017, xii, 20, 83-85;

Kaczkowski et al. 2021, 7; Starr 2016; Wasser et al. 2021, 79-80, 167-168, 250-251; START 2021a).

If terror is a weapon of the weak, this is even more the case for suicide terror, which is most often employed by a party to a conflict facing a great and growing asymmetry in military power against its opponent. This pattern was seen in World War II, when the attrition of Japan's conventional capabilities and the United States' increasing naval and aviation strength prompted Japan to deploy over 3,000 *kamikaze* pilots from October 1944 to August 1945 (Bloom 2005, 13; Hill 2006, 3-4). In its modern form, suicide terror was pioneered by groups in Lebanon in the early 1980s and mostly directed against advanced militaries operating in the country, including the Israel Defense Forces and American and French peacekeepers (Horowitz 2010b, 181-182; Ricolfi 2006, 80). Since that time, suicide attacks have continued to often be used by non-state armed groups that are facing a great asymmetry in power with an advanced state military they are fighting against, including Chechen rebels versus Russia, the Kurdistan Workers' Party (PKK) versus Turkey, and Iraqi insurgents and Taliban versus the United States.

This dynamic is starkly illustrated by the Israeli-Palestinian conflict. Israel has one of the most technologically-advanced militaries in the world and consistently ranks in the top three countries for most active-duty soldiers per capita in the National Military Capabilities (NMC) dataset at the Correlates of War Project (COW) (Grieg and Enterline 2021, 11; Singer, Bremer, and Stuckey 1972, version 6.0).[7] In the West Bank and Gaza Strip (before Israel's 2005 withdrawal of its troops from Gaza), Israel operates a dense

7. Averaging 32.4 active-duty soldiers per 1,000 population between 1981-2016, behind Eritrea, with 35.7 per 1,000 population, and North Korea, with 47.

array of checkpoints, has a substantial number of deployed undercover agents, and maintains a network of informants (Baconi 2018, 70, 183, Bhavnani, Miodownik, and Choi 2011, 75; Petrilli 2018, 47, 60, 77, 84). Palestinian groups operating in these territories therefore have few means of inflicting significant harm on Israel, and the dire military situation they face led them to increasingly turn to suicide terror beginning in the 1990s, escalating to the mass use of suicide attacks during the Second Intifada (Hafez 2006a, 172-174). Severely outmanned and outgunned Palestinian groups saw suicide terror as a force multiplier (Hafez 2006a, 173-174). This case illustrates how groups fighting a highly-capable state military are likely to have an increased reliance on suicide terror and choose this tactic over non-suicide attacks.

In this chapter, I developed theoretical mechanisms that explain how group age and state military capability affect the way groups use suicide terror. I argue that older groups will carry out less suicide attacks than younger groups, but focus more on attacking hard targets, due to older groups having had time to develop skilled operatives and gain experience in traditional guerrilla warfare and insurgency. Late adopters of suicide terror will carry out less suicide attacks than early adopters, as adopting the tactic early on makes it part of a group's established repertoire that is resistance to change. I also argue that groups fighting strong state militaries will carry out more suicide attacks than those fighting weak state militaries, and also focus more on attacking soft targets and rely more on suicide terror. Groups respond in this way to increased military and security pressure, because in a more restrictive security environment their ability to train operatives and carry out attacks is disrupted, leading them to turn their attention towards less-defended targets and unconventional tactical options.

This chapter also introduces two ideal types of suicide terror that exist at opposite ends of a spectrum. The first is the artisan production model, which is the limited use of suicide attacks by high-skilled operatives against strategic targets. The second is the mass-production model, which I term industrialized martyrdom. This second model is the indiscriminate use of suicide attacks by low-skilled operatives against non-strategic targets. Where a group falls on this spectrum of approaches to suicide terror will significantly depend on the process of its organizational development and the capability of the state military fighting against it. I will quantitatively test the validity of these theoretical mechanisms in the next chapter.

CHAPTER 4

QUANTITATIVE ANALYSIS OF THE IMPACT OF GROUP AGE AND STATE MILITARY CAPABILITY ON THE USE OF SUICIDE TERROR

This chapter will test quantitatively the argument that differences between non-state armed groups in their ages and the capability of the state military they are fighting against lead to differences in how groups use suicide terror. Older, established groups and/or those facing weak state militaries are expected to carry out less suicide attacks overall, a higher proportion of suicide attacks on hard targets, and a lower proportion of suicide attacks on soft targets. This is due to this type of group being capable of conducting a smaller number of spectacular attacks that make a large impact. In comparison, newly-formed groups that lack expertise in traditional guerrilla warfare and insurgency and/or those facing strong state militaries are expected to carry out more overall suicide attacks, a lower proportion of suicide attacks on hard targets, and a higher proportion of suicide attacks on soft targets. This is due to this group type needing to conduct a larger number of small-scale attacks to be effective. Groups that begin using suicide terror later in their histories are expected to carry out fewer suicide attacks than groups that use the tactic early on, as it is difficult for groups to change their organizational practices and procedures. Lastly, groups facing strong state militaries are expected to be more reliant on suicide terror, as they are more in need of an unconventional force multiplier to make up for their military asymmetry. I will now explain the hypotheses based on these predictions.

Hypotheses

As non-state armed groups age, they have the time to train skilled fighters, gain skills and experience in traditional guerrilla warfare, and establish their reputations, which gives them less need and incentive to engage in suicide terror. The suicide attacks they do carry out will have increased effectiveness, so less of them will be required. Younger groups have had less time to develop skilled fighters, learn effective guerilla warfare tactics, and spread awareness about their group. Each of their individual suicide attacks will be less effective, so they will need to carry out more of them. They also have an incentive to carry out more attacks to generate publicity for themselves and their cause.

> **H1.** As the age of a non-state armed group increases, the number of suicide attacks the group carries out will decrease.

Older groups will have had more time than younger groups to develop skilled cadres and gain knowledge and expertise in effective military tactics, making them more capable of attacking strategic targets.

> **H2.** As the age of a non-state armed group increases, the proportion of its total suicide attacks against hard targets will increase.

Younger groups have had less time than older groups to develop skilled cadres and gain knowledge and expertise in effective military tactics, making them less capable of attacking strategic targets. They also have increased incentives to attack soft targets, as these kinds of attacks gain the group needed publicity and damage state stability at cheap cost.

H3. As the age of a non-state armed group increases, the proportion of its total suicide attacks against soft targets will decrease.

Groups that are early adopters of a tactic are likely to rely more on it than groups that adopt it later, as an organization's established practices and procedures are slow to change.

H4. As the age at which a non-state armed group first conducts a suicide attack increases, the number of suicide attacks the group carries out will decrease.

Increased state military capability allows states to harden targets and more effectively disrupt group activities, including training operatives and the planning and execution of attacks. This reduces the effectiveness of individual attacks, requiring the group to carry out an increased amount of smaller-scale attacks to compensate.

H5. As state military capability increases, the number of suicide attacks carried out by non-state armed groups will increase.

Groups facing highly-capable state militaries operates in an environment in which potential terror targets have been hardened and its membership heavily policed, monitored, and punished by the state. This makes the training of skilled cadres and the planning of and execution of complex attacks more difficult. In contrast, if a state military is weak, its strategic targets are more vulnerable and groups have more opportunity to train operatives and plan and execute complex attacks free from state interference.

H6. As state military capability increases, the proportion of suicide attacks by non-state armed groups against hard targets will decrease.

Highly-capable state militaries are better able than weak militaries to harden strategic targets and disrupt group efforts at training cadres and planning attacks, reducing the complexity of operations that groups can carry out.

> **H7.** As state military capability increases, the proportion of suicide attacks by non-state armed groups against soft targets will increase.

Groups facing a large and/or increasing gap in military capability with the state are forced to adopt more desperate tactics to attempt to make up for their weakness. Suicide attacks have the potential to act as force multiplier because they can destroy targets that non-suicide attacks cannot reach, they have a strong psychological impact, and they garner significant media attention. Therefore, groups in a weak military position vis-à-vis the state are likely to be more reliant on suicide terror as a tactic.

> **H8.** As state military capability increases, the proportion of suicide attacks out of total terror attacks carried out by non-state armed groups will increase.

Dataset

The theory will be tested quantitatively through statistical analysis of data on the activity and characteristics of non-state armed groups included in the Big, Allied and Dangerous (BAAD) dataset constructed by Victor Asal and R. Karl Rethemeyer (2015). The BAAD dataset is organized by group-year and covers the years from 1998-2012. The groups included in the dataset are those responsible for at least 25 battle deaths in the Uppsala Conflict Data Program (UCDP) and for which researchers could gather sufficient information on organizational variables (Asal and Rethemeyer 2018, 4). There are 140 total groups in the dataset, including 31 which have used suicide attacks (Asal and Rethemeyer 2015; 2018, 4). The dataset is made up of 1,386 group-years, and of

these, 126 include at least one suicide attack recorded in the GTD (Asal and Rethemeyer 2015; Asal, Rethemeyer, and Schoon 2019, 402). The groups included in the BAAD dataset account for "95% of all nonstate actors engaged in an armed insurgency" that are included in the UCDP database between 1998 and 2012 (Asal and Rethemeyer 2018, 4; Asal, Rethemeyer, and Schoon 2019, 399-400). This includes most of the prominent non-state armed groups active in the post-World War II era, including Fatah, the FARC, LTTE, Hezbollah, Al-Qaeda, Hamas, Taliban, and ISIL.

The time period covered by the dataset encompasses crucial years that saw the modern surge in the use of suicide terror worldwide, including the Second Palestinian Intifada (2000-2005) and the Iraq War (2003-2011). The years from 1998-2012 include 2,412 suicide attacks out of the 7,269 recorded in the GTD, which is around 33% of the total (START 2021a). In contrast with other publicly-available conflict datasets, such as the UCDP and the GTD, the BAAD dataset systematically codes information on a variety of non-state armed group characteristics, including group age, estimated membership size, degree of territorial control, ideology, support from foreign sponsor, and whether or not the group provides social services (Asal and Rethemeyer 2015; 2018, 6-9). Therefore, using the BAAD dataset allows for comparative quantitative analysis along a variety of parameters for most of the prominent groups that have both used and refrained from using suicide terror.

Dependent Variables

The dependent variable used in this study for testing H1, H4, and H5, where the outcome of interest is the scale of the use of suicide terror by non-state armed groups, is

total count of *Suicide Attacks* in a given group-year. The data on *Suicide Attacks* is taken from the GTD (START 2021a). The dependent variables for testing H2-3 and H6-7, where the outcome of interest is the targeting selection in the use of suicide terror, are the *Percent Hard Targets* and *Percent Soft Targets* attacked out of total suicide attacks committed by a group in a given group-year. These dependent variables are constructed by dividing the count of suicide attacks against hard or soft targets by the total recorded suicide attacks in the GTD for each group-year. If a group-year has no recorded suicide attacks in the GTD, then the observation is dropped due to a division by zero occurring.

I coded targets of terror attacks as hard or soft based on their recorded target type in the GTD. I coded as hard targets the target types Government, Police, Military, Terrorist/Non-State Militias, Violent Political Parties, and Demilitarized Zone (including Green Zone) (START 2021b, 32-37, 39). These are state and military targets that are likely to have higher levels of security protection. Target types coded as soft targets include Business, Abortion Related, Airports and Aircraft, Educational Institution, Food or Water Supply, Journalists and Media, Maritime, NGO, Private Citizens and Property, Religious Figures/Institutions, Telecommunication, Tourists, Transportation, Utilities, Ambulance, and Fire Fighter/Truck (32-37, 39). These are civilian targets that are likely to have lower levels of security protection. The dependent variable for testing H8, where the outcome of interest is group reliance on suicide terror, is the *Percent Suicide Attacks* out of total terror attacks committed by a group in a given group-year. This dependent variable is constructed by dividing the count of suicide attacks by the total recorded terror attacks in the GTD for each group-year. If a group-year has no recorded terror attacks in

the GTD, then the observation is dropped, as the count of suicide attacks would be divided by zero.

The descriptive statistics for all of the dependent variables are presented in table 2. These statistics show that the data for the dependent variables is unbalanced and not normally distributed. The standard deviation exceeds the mean for the *Suicide Attacks*, *Percent Soft Targets*, and *Percent Suicide Attacks* dependent variables, so the range of possible values for these variables includes non-existent negative values, given that these variables are event counts and percentages. This is especially the case for *Suicide Attacks*, as there are an abundance of values of zero for this dependent variable in the dataset. The structure of this data is therefore one of the key factors in determining the choice of statistical model for the quantitative analysis.

Table 2

Descriptive Statistics of Dependent Variables

Variable	N	Mean	Standard Deviation	Min	Max
Suicide Attacks	1,386	0.715	4.214	0	93
Percent Hard Targets	126	0.631	0.376	0	1
Percent Soft Targets	126	0.361	0.373	0	1
Percent Suicide Attacks	607	0.060	0.176	0	1

Independent Variables

In this section, the primary independent variables of interest will be defined and reviewed. The first primary independent variable is *Group Age*, measured as the number of years a non-state armed group has been active. The data on group ages is from the

BAAD dataset (Asal and Rethemeyer 2015; 2018, 6).[8] *Group Age* is used for testing H1-3. This variable is chosen as a proxy for a group's process of development that over time gives it the ability to train skilled terror operatives and gain experience in guerrilla warfare. Older groups are expected have had more time than younger groups to develop advanced cadres and learn advanced tactics.

For example, the LTTE and Al-Qaeda used the organizational experience they had gained over a decade or more to recruit and train highly-skilled operatives that would carry out their highest-profile suicide attacks against strategic targets (Balasingham 2004, 58, 61; Bergen 2021, 32-52, 61-63, 72-98, 112-168; Hopgood 2006, 52; Swamy 2003, 100). Over its decades-long insurgency, the LTTE gained the organizational skills and experience to be able to develop, maintain, and consistently replenish the ranks of its highly-skilled Black Tiger corps that was specifically created to carry out suicide missions (Balasingham 2004, 58, 61; Pratap 2001, 70; Swamy 2003, 100). Al-Qaeda carried out its attacks against American strategic targets after years of planning and getting its operatives specialized training (Bergen 2021, 112, 130-131; National Commission on Terrorist Attacks Upon the United States [9/11 Commission] 2004, 68, 148-149, 190). These attacks succeeded due to the advanced organizational network of skilled operatives that it had built up since the 1980s (Bergen 2021, 45-47; 9/11 Commission 2004, 55-59).

Group Age is an inexact proxy for the concepts of group development and group developmental processes that it is intended to measure. These are highly complex and

8. BAAD dataset hosted online here: https://www.start.umd.edu/baad/database.html. Replication data used for my analysis accessed here: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/JT6GFR.

contingent processes that cannot be fully captured alone by the numerical age of an organization. The specific experiences of group leaders, the types of individuals these leaders are able to attract to their organization, and the geopolitical contexts in which groups emerge and evolve are also highly important. To address the issue of alternative potential proxy variables for group development and group developmental processes, there is not much available data on the membership profiles of non-state armed groups, or on the educational and professional backgrounds of suicide bombers outside of Palestinian groups and AQI/ISIL (Benmelech and Berrebi 2007, 225; Dodwell, Milton, and Rassler 2016; Felter and Fishman 2007).

This type of data on the educational and professional background for the membership of more or most of the groups in my dataset would be a potentially more exact proxy for measuring group development. A less exact alternative to this would be comprehensive country-year data on levels of post-secondary education, which is also not available, though this too would be an imperfect proxy.[9] Country-level data on post-secondary education would be an indicator of the potential "talent pool" groups might be able to draw from, though it could not account for which people actually join the group, geographic and ethnic differences within the country, etc. Given the limitations of existing quantitative data, the theoretical mechanisms I am testing in this study can be investigated with more precision through case study analysis of specific groups and

9. The main source of data on post-secondary education by country is from the World Bank (2023a), but is missing country-year data for many country-years, including ones that are important to analyzing suicide terror. For example, it is missing data for almost all country-years for Iraq and Afghanistan. The World Bank data on post-secondary education can be accessed here: https://data.worldbank.org/indicator/SE.SEC.CUAT.PO.ZS.

conflicts over set time periods, which I provide in chapters 5 and 6 following this current chapter.

Despite the weaknesses discussed of *Group Age* as a proxy for the level of group development, it still captures key aspects of the concept to make it useful, which I will now continue to describe in this section. Older groups have had more time than newer groups to train skilled operatives and develop advanced practices and procedures for carrying out attacks that they can then teach their bombers. This should enable them to carry out more complex operations against more important and better-defended hard targets. Therefore, each individual terror attack by an older group is expected to have more impact than one by a younger group, so the older group will not need to carry out as many to mount an effective anti-state campaign. Older groups have had more time to establish their reputations, so they have less need and incentive to use an extreme and publicity-generating tactic like suicide terror.

Conversely, younger groups have less capacity to develop skilled assets and practices and procedures and possess less knowledge in carrying out complex operations that they can pass down to their bombers. This makes younger groups more likely to focus their efforts on attacking less important, less-defended soft targets. Each of their individual terror attacks is expected to have a smaller impact than those committed by older groups, so younger groups need to carry out more attacks for their anti-state campaign to be effective. Younger groups need to generate publicity to increase recruitment and funding, and at the beginning of their campaigns have little options for imposing costs on the state. This gives them incentives for engaging in the mass-use of suicide terror against civilian targets, as these attacks garner substantial public and media

attention and inflict significant harm on a state at little material cost to groups (Hellmueller, Hase, and Lindner 2022, 147-149). For this study, I use the group age variable as a proxy for the capacity of a group to develop skilled assets and for its knowledge and expertise in insurgency, which impacts the manner in which it uses suicide terror. If the results of the statistical analysis support H1-3, then an increase in non-state armed *Group Age* will be associated with a decrease in the predicted count of *Suicide Attacks*, an increase in the estimated *Percent Hard Targets* attacked, and a decrease in the estimated *Percent Soft Targets* attacked.

The conceptual power of group age in explaining group behavior has been previously demonstrated by Horowitz (2010a; 2010b). He argues that as organizations age, they tend to generate "bloated bureaucratic structures" that inhibit change (Horowitz 2010b, 28). In the specific case of military organizations, they will tend to become more bureaucratic and less innovative over time (19, 28). This leads Horowitz (2010a, 35) to theorize that older groups are less likely than newer groups to adopt "disruptive innovations." In applying this logic to suicide terror, I theorize that groups that are late adopters of the tactic are likely to use it less, as it is more difficult to integrate a new tactic into its established practices and procedures.

Based on this dynamic, I propose the second primary independent variable, *Group Age First Suicide Attack*, measured as the age of the group in years at which it first conducted a recorded suicide attack in the GTD. To give an example of how this variable is recorded, take a group that carried out its first suicide attack at five-years old in 2005. For the years in the dataset prior to 2005, no value for the variable is recorded, and from 2005 onward a value of five is recorded. Observations are dropped for non-state armed

groups that have not conducted a recorded suicide attack. *Group Age First Suicide Attack* is used for testing H4. If H4 is supported, an increase in *Group Age First Suicide Attack* will be associated with a decrease in the predicted count of *Suicide Attacks*.

The third primary independent variable of interest is the number of state *Troops Per 1,000 Population*, which is the number of government military personnel per one-thousand population in the country that is listed as the group's primary "base/area of operations" (Asal and Rethemeyer 2018, 5).[10] The BAAD dataset includes 49 total countries (Asal and Rethemeyer 2015; Asal, Rethemeyer, and Schoon 2019, 402). The data on government troop levels and country population is taken from the National Military Capabilities (NMC) dataset at the Correlates of War Project (COW) (Grieg and Enterline 2021, 11; Singer, Bremer, and Stuckey 1972, version 6.0).[11] The *Troops Per 1,000 Population* variable is used for testing H5-8, which are for investigating the impact of state military capability on group use of suicide terror. This variable is chosen as the proxy for state military capability, specifically its counter-insurgency and counter-terror capability, which differs from conventional military capability.

Troops Per 1,000 Population measures how densely a country is patrolled in terms of "boots on the ground," which is widely seen as one of the key factors for the state in its ability to fight irregular warfare (Moore 2013). For example, in the initial stage of the Iraq War in 2003, a relatively small American invasion force easily drove to

10. The BAAD dataset codes the home base of Palestinian groups based in the West Bank and Gaza as being Israel, which is reasonable given that there is no standing Palestinian government army, Israel is the primary military opponent that these groups are fighting against, and under most interpretations of international law, Israel is widely recognized as the occupying power for both territories (International Committee of the Red Cross 2023; United Nations Conference on Trade and Development 2023).

11. NMC dataset accessed here: https://correlatesofwar.org/data-sets/national-material-capabilities.

Baghdad as it outmatched the Iraqi military in capability, but then did not have the manpower to maintain security in the country and contain the ensuing insurgency (Gordon and Trainor 2006, 655; Ricks 2006, 130, 149-150, 164). Therefore, a troop density variable is more appropriate for this study which focuses on a dynamic in conflicts between states and non-state groups, as opposed to the variables in the NMC data that measure conventional capability, such as military expenditures, energy consumption, and iron and steel production (Singer, Bremer, and Stuckey 1972, version 6.0).

Higher state troop density levels create a more challenging security environment for non-state armed groups to carry out their activities. A denser government security presence allows for increased hardening of potential terror targets and an increase in intelligence gathering, patrols, and military operations to disrupt group activities. If a state swarms an area with troops, it is able to increase its monitoring, policing, and punishment of the group, giving it less space in which to operate and inhibiting their ability to train its fighters and carry out impactful attacks. When this occurs, groups can choose to either scale-back or cease their activities, or shift resources to attacking easier to reach soft targets to maintain their anti-state campaign. With the impact of individual attacks reduced by the government offensive, groups need to increase their amount of attacks to carry out an effective anti-state campaign. The increased security pressure on the group reduces the range of its available tactical options, encouraging it to resort to suicide terror.

In contrast, a weak government security presence allows groups relatively free reign to invest in training its operatives and to plan and carry out attacks. A more

permissive security environment also entails less government investment in target hardening, making potential terror targets more vulnerable. This allows groups to focus on attacking more important state targets. Individual attacks by groups operating in a permissive security environment are expected to be more effective, so they can put pressure on the state with a lower amount of attacks. If the results of the statistical analysis support H5-7, then an increase in state *Troops Per 1,000 Population* will be associated with an increase in the predicted count of *Suicide Attacks*, a decrease in the estimated *Percent Hard Targets* attacked, and an increase in the estimated *Percent Soft Targets* attacked.

The final hypothesis, H8, tests the proposition that non-state armed groups become more reliant on suicide terror when they are at a significant asymmetrical disadvantage with the state military they are fighting. The more capable the state military becomes, the more reliant on suicide terror the group is likely to become, as it becomes more desperate and needs a cheap force-multiplier to compensate for its relative weakness. A heavier government security presence makes it more difficult for groups to reach their intended targets using more conventional tactics, necessitating an increased reliance on suicide attacks. Suicide terror also effectively spreads fear and panic within a country's population, which impacts state stability, and garners disproportionate media attention (Jetter 2019). If H8 is supported, then an increase in state *Troops Per 1,000 Population* will be associated with an increase in the estimated *Percent Suicide Attacks* out of total terror attacks. The descriptive statistics for the three primary independent variables of interest are presented in table 3.

Table 3

Descriptive Statistics of Independent Variables

Variable	N	Mean	Standard Deviation	Min	Max
Group Age	1,386	17.491	14.425	0	65
Group Age First Suicide Attack	248	10.879	10.848	0	39
Troops Per 1,000 Population	1,351	5.348	6.453	0	29.245

Control Variables

In this final section on defining variables, the independent variables used as controls will be reviewed. The first set of control variables are group characteristic indicators included in the BAAD dataset. To test the impact of non-state armed group ideology, binary variables indicating whether or not a group adheres to an *Islamist Ideology* or *Ethnic Ideology* are included. *Islamist Ideology* is a recoded version of the binary Religious Organization variable in the BAAD dataset, which indicates whether or not a group has a religious ideology (Asal and Rethemeyer 2018, 6). For this study's *Islamist Ideology* variable, the religious organizations in the BAAD dataset that have a specific Islamist religious ideology are coded 1 and those that do not are coded 0. The *Ethnic Ideology* variable denotes whether a group is labeled an "Ethnic Organization" in the BAAD dataset, meaning it "represents a certain ethnic group and advocates for the rights or expansion of that ethnic group" (6). Groups that have an *Ethnic Ideology* are coded 1 and those that do not are coded 0.

The literature strongly supports the finding that religious and ethnic-based groups are more likely to engage in suicide terror and carry out more suicide attack than groups

that do not adhere to these ideologies, such as leftist or Marxist groups (Acosta and Childs 2013, 66-67; Braun and Genkin 2014, 1273-1274; Guler and Demir 2021, 115-118; Horowitz 2010a, 50-53; Piazza 2008, 32, 34-37). The GTD data also shows that the vast majority of suicide attacks are carried out by groups with an extreme Islamist or jihadist ideology. Out of the top 10 most prolific users of suicide terror, nine are extreme Islamist or jihadist groups, and these nine groups alone account for 49.7% of all suicide attacks in the GTD dataset (START 2021a). Ethnic-based groups have also been high-profile users of suicide terror. Pape's work shows that most prominent suicide terror-campaigns take place within the context of separatist/national self-determination conflicts in places like Sri Lanka, Turkey, and Chechnya (Pape 2003, 344, 347). Based on the data and literature, groups having either an *Islamist Ideology* or *Ethnic Ideology* are predicted to carry out an increased number of *Suicide Attacks*.

In terms of targeting decision-making with suicide attacks as opposed to scale of use, many of the most notorious acts of suicide terror against civilians in countries such as Israel, Iraq, Afghanistan, and Pakistan have been carried out by extreme Islamist and jihadist groups. While these types of groups vary in terms of their specific theological beliefs and geopolitical ambitions, they share in their ideology a glorification of martyrdom in battle against their enemies and an obsessive hatred against religious "others," whether Jews, Shia, or Yazidis, that in their worldview justifies indiscriminate violence against non-combatants (Gerges 2021, 87, 146, 154, 203; McCants 2015, 10; Moghadam 2008, 77; Weiss and Hassan 2016, 228). A similar dynamic also often occurs in ethnic conflict where opposing ethnic groups find it easier to justify and rationalize violence against each other's civilians due to them being part of the "enemy" group

(Bloom 2005, 79; Kaufmann 2006). This is a major reason why widespread violence against civilians is common in ethnic conflict (Aliyev and Souleimanov 2019, 472-482; Stanton 2015). Tribal attachment to an ethnic group, like religious conviction, is also a strong motivator for acts of self-sacrifice (Ali and Post 2008, 641-642; Braun and Genkin 2014, 1262, 1264). Therefore, groups having an *Islamist Ideology* or *Ethnic Ideology* are predicted to carry out a decrease in *Percent Hard Targets* attacked, an increase in *Percent Soft Targets* attacked, and an increase in *Percent Suicide Attacks* out of total terror attacks.

The next group of control variables that will be discussed are indicators of non-state armed group capability that are included in the BAAD dataset. These include *Group Size*, *Territorial Control*, *State Sponsor*, and *Social Service Provision*. *Group Size* is an ordinal variable used to indicate the estimated number of members a group has. Groups having unknown/0-100 members are coded 1, those with 100-999 coded as 2, those with 1,000-9,999 coded as 3, and those with 10,000+ coded as 4 (Asal and Rethemeyer 2018, 6-7). *Territorial Control* is a binary variable used to indicate if a group "is able to control movement into, out of, or within a given territory" (7). Groups that control territory are coded 1, and those that do not are coded 0. *State Sponsor* is a binary variable used to indicate if a group is "known to be directly supported by a sovereign state" (8). Groups that receive direct state support are coded 1, and those that do not are coded 0. *Social Service Provision* is a binary variable used to indicate if a group "provide[s] any medical, welfare, education, infrastructure, protection (or security), or other service" (8-9). Groups that provide social services are coded 1, and those that do not are coded 0.

Group Size and *Territorial Control* can be seen as indicators for the conventional military power of the group. As a group grows in size and rules over territory it should approximate a state army and government structure, and adopt more conventional military tactics (Butler and Gates 2010, 10; Byman 2016, 146). Its individual terror attacks would be expected to cause more damage, so it would not need to carry out as many. It would also be more effective in attacking military targets, and have less incentive or need to employ a "weapon of the weak" like suicide terror. Based on these assumptions, an increase in *Group Size* and group *Territorial Control* are both predicted to decrease the count of *Suicide Attacks*, increase the *Percent Hard Targets* attacked, decrease the *Percent Soft Targets* attacked, and decrease the *Percent Suicide Attacks* out of total terror attacks.

Having a *State Sponsor* can increase a group's military capability, as seen by how Hezbollah and Hamas have benefited from the support of Iran (Marcus 2018, 273, 279-280; Petrilli 2018, 76, 151, 154). However, the case of Renamo demonstrates how the prospect of largess from an external patron can also attract "opportunistic joiners" to a group which can undermine its fighting effectiveness (Weinstein 2005). In addition, external support also creates potential principal-agent issues and perverse incentives that can lead to increased civilian targeting by groups (Hovil and Werker, 2005; Salehyan, Siroky, and Wood 2014). Recent work by Carter (2022) and Carter, Van Nuys, and Albayrak (2021) and demonstrates that religious groups that receive state sponsorship are more likely to carry out suicide attacks and target civilians in general with their terror attacks. Lastly, state support to groups can provide them with the resources that allow them to offer financial incentives to potential suicide bombers, i.e., by compensating their

family members. This is exactly what occurred during the Second Palestinian Intifada, when the Iraqi government of Saddam Hussein paid the families of suicide bombers, increasing the amount of volunteers and allowing Palestinian groups to dispatch more bombers (Chehab 2007, 156). Therefore, if a group having a *State Sponsor* attracts lower-quality recruits, increases group propensity to target civilians, and allows a group to fund more attacks, state sponsorship is predicted to increase *Suicide Attacks*, decrease the *Percent Hard Targets* attacked, increase the *Percent Soft Targets* attacked, and increase the *Percent Suicide Attacks*.

The final group capability control variable is *Social Service Provision*. This variable indicates the ability of a group to provide local public goods to its followers. Berman and Laitin (2005; 2008) theorize that groups with this ability are able to attract more committed and loyal followers, including more individuals willing to sacrifice themselves, as well as individuals less likely to defect, enabling these groups to carry out more suicide attacks and enhancing their ability to carry out complex operations. Berman and Laitin's (2005, 24-26, 38-39; 2008, 1958-1961) results confirm their theory and the groups in their analysis that provide social services carry out more suicide attacks, an increased percent of suicide attacks against hard targets, and an increased percent of suicide attacks out of total attacks. Based on these findings, *Social Service Provision* is predicted to be associated with an increase in *Suicide Attacks*, an increase in *Percent Hard Targets* attacked, a decrease in *Percent Soft Targets* attacked, and an increase in *Percent Suicide Attacks*.

The second set of controls are conflict-level variables, which include *Group-Inflicted Battle Deaths* and *Number of Groups*. *Group-Inflicted Battle Deaths* is used to

control for conflict intensity. This variable is the natural log of the number of annual battle deaths inflicted by the group recorded in the UCDP Battle Deaths Dataset that is used in the BAAD dataset (Asal and Rethemeyer 2018, 8). *Number of Groups* is used to control for a potential outbidding dynamic among non-state armed groups active in a country. This variable is the number of recorded groups in the BAAD dataset that are listed for each country annually.

Suicide terror is not usually an isolated occurrence. It is most often one of several modalities of political violence used in ongoing internal conflicts by non-state armed groups. Therefore, conflict intensity should impact how groups use suicide terror. More intense conflicts should see the occurrence of more suicide attacks, so increases in *Group-Inflicted Battle Deaths* are predicted to increase *Suicide Attacks*. Intense internal conflicts are often categorized by widespread violence against civilians by all sides, so increases in *Group-Inflicted Battle Deaths* are predicted to decrease the *Percent Hard Targets* and increase the *Percent Soft Targets* attacked. As conflict intensity increases, groups may become more desperate militarily, so increases in *Group-Inflicted Battle Deaths* are predicted to increase *Percent Suicide Attacks*.

One of the major theories on the causes of the spread of suicide terror is that it is due to competition between non-state armed groups for political power and prestige among the communities they claim to represent. This theory, developed by Bloom (2004; 2005), is known as outbidding and describes a process in which groups attempt to outdo each other with the suicide attacks they commit to demonstrate their strength and commitment to a national or religious cause to their constituencies. If engaging in suicide terror helps improve a group's "market share" of public support, as argued by Bloom

(2004, 72; 2005, 28), then increases in *Number of Groups*, i.e., the market becoming more competitive for groups, is predicted to increase *Suicide Attacks* and *Percent Suicide Attacks*. An outbidding dynamic may incentivize groups to carry out as many attacks as possible as quickly as possible, which would drive them to carry out mass attacks against civilians. Therefore, an increase in *Number of Groups* is predicted to decrease the *Percent Hard Targets* and increase the *Percent Soft Targets* attacked.

The third and final set of controls are country-level variables. These include *Democracy*, *Log Population*, and *Log GDP Per Capita*. *Democracy* is the annual liberal democracy score in the Varieties of Democracy (V-Dem) dataset for the country listed in the BAAD dataset as the primary base/area of operations for the non-state armed group (Coppedge et al. 2021b; Pemstein et al. 2021).[12] This score is a 0 to 1 index that indicates the extent to which liberal democracy has been achieved in a country, with 0 being the least liberal democratic and 1 being the most liberal democratic (Coppedge et al. 2021a, 44). *Log Population* is the natural log of the country's annual population, with the population figures taken from the NMC dataset (Singer, Bremer, and Stuckey 1972, version 6.0). *Log GDP Per Capita* is the natural log of the country's annual GDP per capita in constant 2000 US dollars, taken from the data in Böhmelt, Bove, and Gleditsch (2019, appendix pg. 3) who used the figures from the World Bank Development Indicators.[13]

The impact of *Democracy* on levels of terrorism is one of the most studied questions in the literature. Scholars have argued that democracies are more vulnerable to

12. V-Dem Dataset accessed here: https://www.v-dem.net/vdemds.html.

13. Replication data for this article accessed here: https://www.prio.org/journals/jpr/replicationdata.

terror attacks due to the openness of their societies that makes potential targets less-secured, gives would-be terror operatives more space to plan attacks, and freedom of the press that allows the spread of news of attacks and the message of the groups carrying out attacks (Wilkinson 2011). The work of Pape (2003; 2005) emphasizes that democracies are more likely to be the targets of suicide terror, since their governments are responsive to public opinion, which makes suicide attacks a tool to make publics pressure their governments to make concessions. Therefore, an increase in the V-Dem liberal democracy index is predicted to increase the count of *Suicide Attacks*. As the group strategy in employing suicide terror against democracies outlined by Pape depends on making civilians feel personally vulnerable to attack to get them to lobby their government to offer concessions to get the attacks to stop, an increase in V-Dem score is predicted to decrease the *Percent Hard Targets* attacked and increase the *Percent Soft Targets* attacked. If groups fighting democracies have an increased incentive to engage in suicide terror, then an increase in V-Dem score is predicted to increase *Percent Suicide Attacks*.

Higher population is a consistent predictor in the literature of both civil conflict (Cederman, Weidmann, and Gleditsch 2011; Collier and Hoeffler 2004; Collier, Hoeffler, and Rohner 2009; Fearon and Laitin 2003) and terror (Bakker, Hill, and Moore 2016; Gassebner and Luechinger 2011; Krieger and Meierrieks 2011; Piazza 2006). A larger population increases state costs of monitoring and policing and allows non-state armed groups to recruit from wider pool of prospective insurgents and terror operatives (Fearon and Laitin 2003, 81; Piazza 2006, 166). Collier and Hoeffler (2004, 588) argue that both opportunities to engage in political violence and grievances that drive conflict increase

with population. Population increase may be a sign of demographic stress which can provoke more terror (Krieger and Meierrieks 2011, 10) and "large countries provide many targets and a larger pool of potential victims and perpetrators" (Gassebner and Luechinger 2011, 239). These dynamics also apply to suicide terror, and population size is a strong predictor of higher rates of suicide attacks (Choi and Piazza 2016, 1021; 2017, 283, 285-286, 288-290; Findley and Young 2012, 711, 717; Wade and Reiter 2007, 339, 341). Therefore, an increase in *Log Population* is predicted to increase *Suicide Attacks* and *Percent Suicide Attacks*. As population increases, the number of potential soft targets should increase at a higher relative rate than hard targets, as there is less difference between countries in the amount of total hard targets such as government buildings and elected officials. *Log Population* is predicted to decrease the *Percent Hard Targets* and increase the *Percent Soft Targets* attacked.

The final country-level variable is *Log GDP Per Capita*. Economic strength is associated in the literature with lower rates of civil conflict (Cederman, Weidmann, and Gleditsch 2011; Collier and Hoeffler 2004; Collier, Hoeffler, and Rohner 2009; Fearon and Laitin 2003). This is due to economic growth and higher per capita income increasing the opportunity costs of joining a rebellion, making recruitment more difficult for non-state armed groups, as well as being indicative of higher state capacity and the state's ensuing ability to exercise effective control over its territory and engage in policing and counterinsurgency (Collier and Hoeffler 2004, 569, 588; Collier, Hoeffler, and Rohner 2009, 7, 12, 23, Fearon and Laitin, 2003, 76, 80). However, economic performance has been found to have a weak association with rates of terror attacks

(Bakker, Hill, and Moore 2016, 719, 722; Krieger and Meierrieks 2011, 10, 14-15; Piazza 2006, 161, 168-170).

For the specific case of suicide attacks, Berman and Laitin (2005, 7-8, 37; 2008, 1948-1949) demonstrate that countries with a higher GDP per capita are more likely to suffer from suicide attacks than traditional insurgency, indicating that groups resort to suicide terror when fighting a high-capacity state due to insurgency becoming less feasible. This dynamic is borne out in the case of Palestinian groups versus Israel (Berman and Laitin 2005, 8; 2008, 1949). Piazza (2008, 36-37) finds that an increase in GDP per capita has a statistically significant and positive effect on the incidence of suicide attacks. Braun and Genkin (2014, 1273-1274, 1276-1278) find that increases in logged country GDP increase the probability of groups adopting suicide terror as a tactic. In line with these findings, an increase in *Log GDP Per Capita* is predicted to increase *Suicide Attacks*. As hard targets are likely to be better defended in high-capacity states, an increase in *Log GDP Per Capita* is predicted to decrease the *Percent Hard Targets* and increase the *Percent Soft Targets* attacked. In addition, groups fighting a high-capacity state face a greater asymmetry in power, making their military situation more desperate, so *Log GDP Per Capita* is predicted to increase *Percent Suicide Attacks*. The descriptive statistics for the control variables are included in appendix A.

Methods

The dependent variable used for testing H1, H4, and H5, *Suicide Attacks*, is the discrete count of suicide attacks in a given group-year. Therefore, a count model is appropriate for the statistical tests of these three hypotheses. Out of 1,386 group-years in

my dataset, 1,286 (90.9%) contain zero *Suicide Attacks*. For a data structure with an overdispersion of zeros, or zero-inflation, Long (1997, 243-244) recommends using a zero-inflated model, such as a zero-inflated Poisson (ZIP) or zero-inflated negative binomial regression (ZINB) model. Based on model-fit tests and information criterion, which are discussed below and presented in the table of regression results, a ZINB model is chosen for testing H1 and H5, while a standard negative binomial regression (NBR) is chosen for testing H4. A ZINB model assumes that two distinct processes are at work in the distribution of values in the outcome variable; one generating zero counts and another generating positive counts (243, 245). In the first stage of the model estimation, a logit or probit model predicts zero counts, and in the second stage an NBR model predicts positive counts (243-245). The coefficients in the count model represent the change in the predicted log count in the outcome variable per one-unit increase in the explanatory variable, while the coefficients in the inflate model represent the change in the log odds of observing a count of zero per one-unit increase in the explanatory variable.

The dependent variables used for testing H2-3 and H6-8, *Percent Hard Targets*, *Percent Soft Targets*, and *Percent Suicide Attacks*, are continuous fractional values between 0 and 1. For the statistical tests of these hypotheses, I use fractional logistic regression. The fractional logistic regression model was developed by Papke and Wooldridge (1996; 2008, 122), who for fractional response variables use quasi-maximum likelihood estimation with a logistic function to calculate the conditional means. This model type has previously been used for analyzing data in the labor economics and education fields (Papke and Wooldridge 1996; 2008, 127-130). As a robustness check, I

also used ordinary least squares (OLS) regression, and the results were very similar. These results are included in appendix B.

Results and Discussion

For each quantitative test, four different model specifications are used. The first includes as independent variables just the primary variables of interest, *Group Age* and *Troops Per 1,000 Population*. The second adds the group characteristics control variables, while the third adds conflict-level control variables. In the last and fully-specified model the country-level control variables are added. Standard errors are clustered on non-state armed groups for all models.

The results of the ZINB regressions where *Suicide Attacks* is the dependent variable are presented in table 4. The results of the analysis strongly support H1, as increases in *Group Age* are shown to be associated with a decrease in the count of *Suicide Attacks* and the negative coefficient on *Group Age* is statistically significant at the p=0.05 level across model specifications. The coefficient in the fully-specified model shows that for every year increase in *Group Age*, the predicted log count of *Suicide Attacks* decreases by 0.035, which converts to a decrease by 1.04 attacks in the raw count. The predictive margins for this variable in the fully-specified model, presented in figure 1, show that on average a group in its first year of existence is expected to carry out 1.17 suicide attacks. By age 10, this amount has declined to 0.86 attacks, at age 20, to 0.63 attacks and at age 30, to 0.45 attacks. Therefore, a 30-year-old group is predicted to carry out 2.6 times fewer attacks than a one-year-old group.

Table 4

ZINB Models Predicting Count of Suicide Attacks, 1998-2012

	Model 1	Model 2	Model 3	Model 4
Suicide Attacks Count Model				
Group Age	-0.051*	-0.107***	-0.043**	-0.035*
	(0.025)	(0.031)	(0.014)	(0.016)
Troops Per 1,000 Population	-0.026	0.030	0.106***	0.139*
	(0.024)	(0.058)	(0.030)	(0.072)
Islamist Ideology		-0.129	-0.377	-0.239
		(1.746)	(0.503)	(0.440)
Ethnic Ideology		0.579	-0.963	-0.810
		(2.421)	(0.587)	(0.520)
Group Size		0.564	-0.054	-0.156
		(0.667)	(0.327)	(0.352)
Territorial Control		0.632	-0.438	-0.532
		(0.520)	(0.556)	(0.488)
State Sponsor		-0.453	-0.613	-0.105
		(0.795)	(0.405)	(0.600)
Social Service Provision		0.948*	0.374	-0.013
		(0.496)	(0.331)	(0.325)
Group-Inflicted Battle Deaths			0.613***	0.627***
			(0.104)	(0.101)
Number of Groups			-0.020	-0.049
			(0.053)	(0.090)
Democracy				0.908
				(1.609)
Log Population				-0.122
				(0.348)
Log GDP Per Capita				-0.656*
				(0.312)
Constant	1.858*	-0.250	-1.688	5.362
	(0.844)	(3.113)	(1.104)	(5.307)
Inflate Model				
Group Age	0.023	-0.204	-0.144*	-0.066
	(0.025)	(0.155)	(0.068)	(0.061)
Troops Per 1,000 Population	-0.272	-0.532***	-0.464*	-0.888*
	(0.283)	(0.167)	(0.240)	(0.392)
Islamist Ideology		-7.041*	-10.728**	-13.569**
		(4.201)	(3.839)	(4.821)
Ethnic Ideology		0.548	-4.649**	-5.240*
		(6.893)	(1.981)	(2.443)
Group Size		0.776	-0.237	-1.126
		(1.747)	(1.039)	(1.910)

Table 4 (continued)

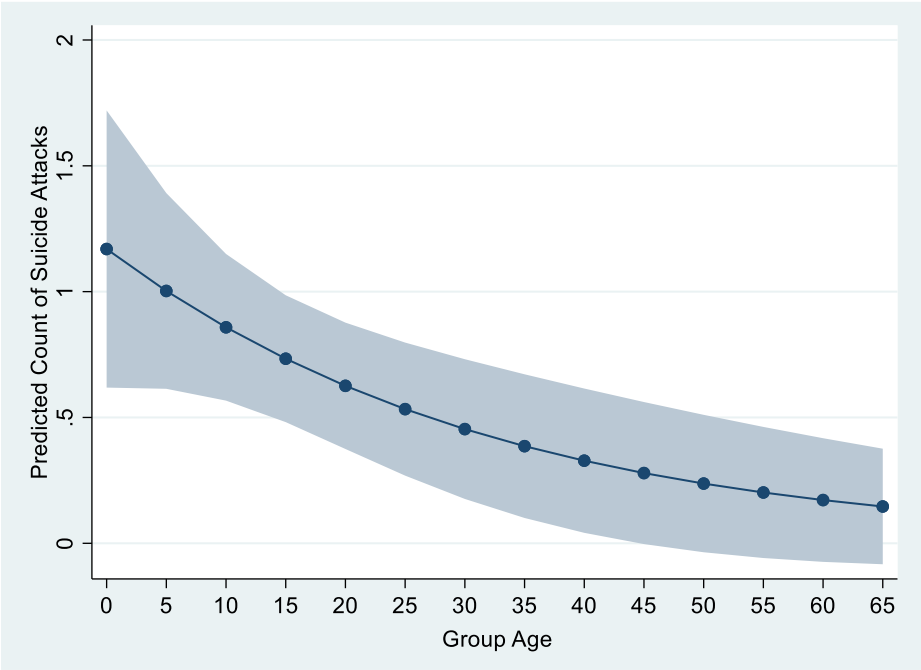
Territorial Control		-2.733*	-2.302	-3.123
		(1.545)	(1.464)	(2.008)
State Sponsor		2.440	0.412	14.240**
		(3.947)	(3.436)	(5.528)
Social Service Provision		-2.730	-2.520	-2.687*
		(5.048)	(2.285)	(1.447)
Group-Inflicted Battle Deaths			-0.357	-0.376
			(0.285)	(0.250)
Number of Groups			-0.234	-0.144
			(0.150)	(0.432)
Democracy				-15.894
				(10.083)
Log Population				0.155
				(1.144)
Log GDP Per Capita				0.517
				(1.674)
Constant	1.892**	7.809	15.768***	18.266
	(0.630)	(7.653)	(3.779)	(18.598)
Log α	2.069**	1.974***	0.906**	0.585*
	(0.694)	(0.271)	(0.296)	(0.326)
Number of observations	1,351 (35 obs. dropped due to missing data)	1,351 (35 obs. dropped due to missing data)	1,351 (35 obs. dropped due to missing data)	1,227 (159 obs. dropped due to missing data)
Non-zero observations	122	122	122	117
AIC	1,437.886	1,265.436	1,105.535	1,027.332
BIC	1,474.347	1,364.400	1,225.333	1,175.590
Likelihood-ratio test with ZIP	995.05***	649.61***	374.27***	339.78***
Vuong test	4.07***	5.50***	4.60***	4.88***
Wald X^2	7.33	38.86	148.93	624.91
Log-pseudolikelihood	-711.943	-613.718	-529.768	-484.666

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1

Predictive Margins with Group Age IV and Suicide Attacks DV

(95% Confidence Intervals)



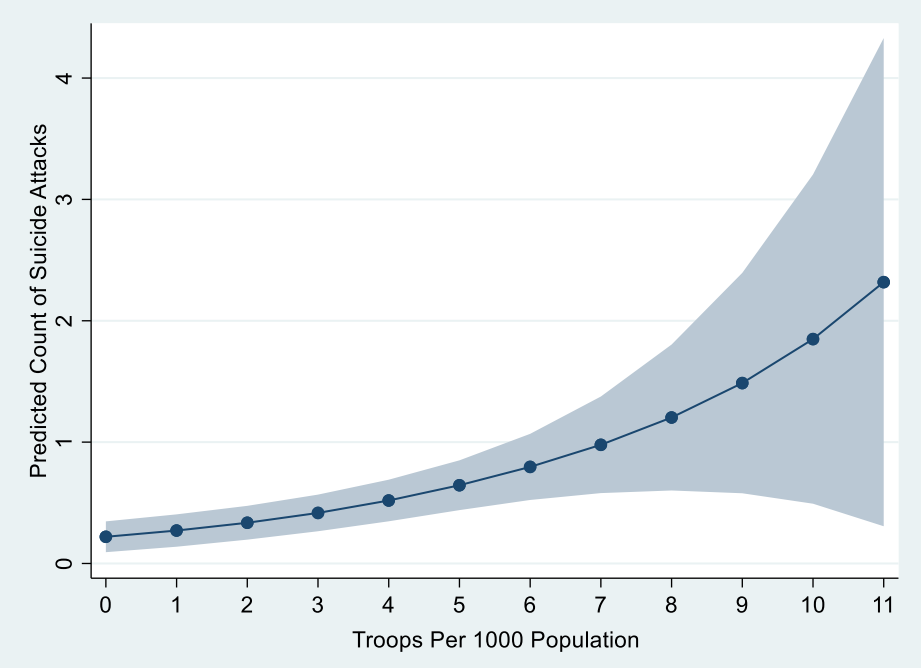
The dynamic of older groups carrying out less suicide attacks than newer groups can be illustrated by comparing the number of attacks by long-active Marxist groups with more recently established jihadist groups. For example, groups established during the Cold War-era, such as the FARC, ELN, and Shining Path, have barely used suicide terror as a tactic at all, with the FARC carrying out two recorded attacks in the GTD, the ELN one attack, and the Shining Path zero attacks (START 2021a). This contrasts with groups established in the mid-2000s, such as Al-Shabaab, which as carried out 222 recorded attacks, Tehrik-i-Taliban Pakistan (Pakistani Taliban), with 194 attacks and Al-Qaeda in the Arabian Peninsula, with 137 attacks (START 2021a). The process by which groups may use the suicide terror tactic less over time as they gain more tactical expertise and

military capabilities is illustrated by the cases of Hezbollah and Palestinian groups. Despite making prominent use of suicide terror in the past, after several decades of combat experience and gaining access to new military technologies and capabilities they have largely abandoned the tactic (Sharp et al. 2006, 10-11; Petrilli 2018, 142-163; Popovich 2014). Since 1999, Hezbollah has only carried out a single suicide attack, and Palestinians have only carried out 22 attacks against Israeli targets since the end of the Second Intifada in 2005 (contrasting with 144 in the 2000-2005 period) (START 2021a).

The results of the ZINB analysis also provide support for H5, as the predicted positive coefficient on *Troops Per 1,000 Population* in the count model has p-values less than 0.05 in models 3 and 4. In the fully-specified model, the coefficient shows that an increase in one government soldier per thousand population in a country is associated with an increase of 1.15 in the raw count of *Suicide Attacks*. The predictive margins, presented in figure 2, show that when a state has one soldier per thousand population, on average groups are predicted to carry out 0.22 suicide attacks. When the number of state troops increases to five troops per thousand population, the count of attacks increases to 0.64, and when the number of troops reaches 10 per thousand population, the count of attacks increases to 1.85. This represents an 841% increase in attacks between one soldier per thousand population and 10 soldiers per thousand population. In addition, in the inflate model, the coefficients on this variable are negative with p-values less than 0.05 for models 2-4. This indicates that troop increases reduce the number of predicted zero counts of *Suicide Attacks*, i.e., makes groups more likely to carry out *any* amount of

Figure 2

Predictive Margins with Troops Per 1,000 Population IV and Suicide Attacks DV (95% Confidence Intervals)



suicide attacks. Therefore, these results show that when groups face higher levels of state troops they are more likely to both use suicide terror and increase their use of suicide attacks.

The examples of Palestinian groups and ISIL show how this can be the case. Palestinian opponents of Israel face the military with the highest per capita troop levels in my dataset, averaging 25.5 troops per 1,000 population from 1998-2012 (Singer, Bremer, and Stuckey 1972, version 6.0). Operating in this densely policed and patrolled security environment, Palestinian groups were the first engage in the mass use of suicide terror in 2001 during the Second Intifada when they carried out 29 attacks alone (START 2021a). In the case of ISIL, it overran much of northern and western Iraq in 2014, prompting a

massive international intervention against the group which included the re-introduction of thousands of American troops into the country (Cooper and Shear 2014; Gerges 2021, 131, 198; Jones et al. 2017, 81-82; McCants 2015, 1, 121; Peters 2021, 13-14; Wasser et al. 2021, 27, 52-53; Weiss and Hassan 2016, 95-96, 120, 229, 238-239, 250). The anti-ISIL campaign culminated in 2015-2017, and the group responded with the largest wave of suicide terror in history. ISIL conducted 331 suicide attacks in 2015, 454 in 2016, and 315 in 2017, by far the three highest yearly totals by any group (START 2021a). Other major internal conflicts that have seen high levels of suicide terror have also included massive foreign intervention, such as those in Afghanistan, Syria, and Yemen.

The significant results for control variables in the ZINB analysis include those for *Group-Inflicted Battle Deaths*, *Log GDP Per Capita*, *Islamist Ideology*, and *Ethnic Ideology*. None of the other control variables reach significance at the 95% confidence level. In the count model, *Group-Inflicted Battle Deaths* is positive and significant at the $p=0.001$ level, showing a strong association between conflict intensity and levels of suicide attacks in line with my prediction. Contrary to the findings in the previous literature on suicide terror and my expectations, the coefficient on *Log GDP Per Capita* is significant ($p<0.05$) and negative in the count model. This finding contrasts with the positive coefficient for *Troops Per 1,000 Population*. Therefore, state capacity (which GDP per capita proxies for) appears to have a different effect on group use of suicide terror than troop levels. State capacity is distinct from state troop levels, which can measure a state's specific capabilities in counter-insurgency and policing.

As discussed earlier, the conflict literature finds that wealthy countries are less prone to civil conflict (Cederman, Weidmann, and Gleditsch 2011; Collier and Hoeffler

2004; Collier, Hoeffler, and Rohner 2009; Fearon and Laitin 2003). Suicide terror has been a prominent feature of many modern civil conflicts, including in Iraq, Afghanistan, Pakistan, Syria, Somalia, and Yemen, which are all lower-income countries. This may explain why higher GDP per capita is associated with lower rates of suicide terror. While not significant in the count model, *Islamist Ideology* and *Ethnic Ideology* are strongly negative and significant in the inflate model ($p<0.05$) across different model specifications, showing that groups with these ideologies are more likely to carry out at least one suicide attack. This result is unsurprising, given that most groups that have adopted suicide terror subscribe to one or both of these ideologies.

Another interesting finding revealed by the controls is that while the number of state troops is clearly a significant explanatory factor, *Group Size* was not. This may be due to even large non-state armed groups being significantly outnumbered by even relatively small state militaries. In my dataset, just over 11% of the total group-year observations include groups with 10,000 or more members, the largest category in the 1-4 scale coded in the BAAD dataset (Asal and Rethemeyer 2018, 6-7). Only 26 out of the 140 groups (18.6%) covered by the BAAD dataset ever reach this size (Asal and Rethemeyer 2015). In contrast, over 74% of the group-year observations include state militaries with 10,000 or more troops as recorded in the NMC dataset (Singer, Bremer, and Stuckey 1972, version 6.0). Over 60% of the observations include state militaries with 45,000 or more troops (Singer, Bremer, and Stuckey 1972, version 6.0). Out of the 49 countries recorded in the BAAD dataset, 43 (87.8%) have 10,000 or more troops at some point during the time period covered (1998-2012), while 32 out of 49 (65.3%) have

45,000 or more (Asal and Rethemeyer 2015; Asal, Rethemeyer, and Schoon 2019, 402; Singer, Bremer, and Stuckey 1972, version 6.0).

Even in the case of a large group like the Tamil Tigers, which at its peak numbered anywhere from 10,000-32,000 fighters and had acquired significant conventional military capabilities, it was still outnumbered by several orders of magnitude by the Sri Lankan Army (Hashim 2013, 195-196; Swamy 2003, 237-238, 249). In a single year from 2006-2007 it increased its personnel by 40,000 troops, an increase alone that is larger than the highest estimate for the total size of the Tamil Tigers organization, growing its ranks from 111,000 to 151,000 troops, which would contribute to it being able to overwhelm the Tigers in the final years of the Sri Lankan Civil War (Darusman, Ratner, and Sooka 2011, 15-16; Hashim 2013, 144, 160, 187-188; Singer, Bremer, and Stuckey 1972, version 6.0). This example illustrates how the size of state militaries, and the inherent ability of a modern state to quickly raise large armies, is a far more significant factor in conflicts than the size of non-state armed groups. Fearon and Laitin (2003, 88) note that under the right conditions, a group with just 500-2,000 members can successfully sustain an insurgency. When it comes to carrying out suicide attacks, whether a group has hundreds or thousands of members may not substantially affect how it decides to employ suicide terror, it just needs enough to keep an insurgency going, and suicide attacks are part of the repertoire of tactics that many modern insurgent groups use. How many suicide attacks a group carries out may depend more on its institutional knowledge of the tactic, as opposed to a specific threshold number of fighters. In the case of the LTTE, even though the groups had thousands of total fighters, its elite Black Tiger suicide squads were a very small fraction of its membership,

numbering only 200-240 operatives at any one time (Athas 2007; Hashim 2013, 194; Pratap 2001, 70; *TamilNet* 2007).

Now that I have discussed the implications of the results of the ZINB models, I will describe the robustness tests that I conducted to show that ZINB is a good fit for my data in comparison with the main alternative models used for analyzing data with an overdispersion of zeros, including ZIP and NBR. The strongly significant likelihood ratio test statistics in table 4 indicate that ZINB fits the data better than ZIP, while the strongly significant Vuong test statistics indicate that ZINB is a better fit than NBR. In comparing the Akaike's information criterion (AIC) and Bayesian information criterion (BIC) for fully-specified models, in the ZINB the AIC=1,027.332 and BIC=1,175.590. In the ZIP, AIC=1,365.108 and BIC=1,508.253, while in the NBR, AIC=1,107.321 and BIC=1,184.006. The AIC and BIC are significantly lower for the ZINB, also confirming that the ZINB is the most appropriate model for analyzing this data.

The results of the NBR regressions to test H4, where the dependent variable is count of *Suicide Attacks*, and the primary independent variable is *Group Age First Suicide Attack*, are presented in table 5. The results strongly support H4, as the coefficient on *Group Age First Suicide Attack* is in the predicted negative direction across all model specifications and significant with p-values between 0.01 and 0.05. The coefficient in the fully-specified model shows that for every year increase in *Group Age First Suicide Attack*, the predicted log count of *Suicide Attacks* decreases by 0.062, which converts to a decrease by 1.06 attacks in the raw count. The predictive margins for this variable in the fully-specified model, presented in figure 3, show that a group that carried out a suicide attack in its first year of existence is expected to carry out 6.61 suicide

Table 5

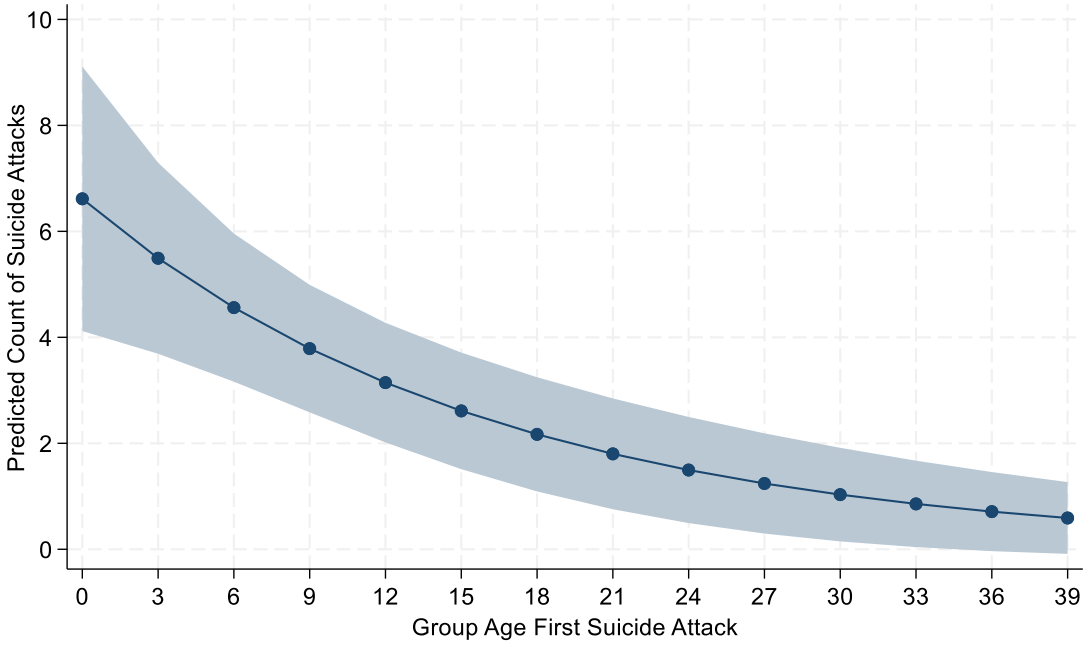
NBR Models Predicting Count of Suicide Attacks, 1998-2012

DV: Suicide Attacks	Model 1	Model 2	Model 3	Model 4
Group Age First Suicide Attack	-0.083***	-0.089***	-0.062**	-0.062***
	(0.018)	(0.024)	(0.020)	(0.017)
Troops Per 1,000 Population	-0.017	0.041	0.098***	0.165**
	(0.020)	(0.028)	(0.025)	(0.067)
Islamist Ideology		-0.349	-0.171	-0.132
		(0.695)	(0.390)	(0.341)
Ethnic Ideology		-0.355	-0.656	-0.487
		(0.789)	(0.491)	(0.396)
Group Size		0.541	0.220	0.036
		(0.380)	(0.303)	(0.296)
Territorial Control		0.037	-0.649	-0.609
		(0.524)	(0.455)	(0.387)
State Sponsor		-0.985	-0.980**	-1.034*
		(0.778)	(0.382)	(0.478)
Social Service Provision		0.545	0.160	-0.125
		(0.430)	(0.297)	(0.288)
Group-Inflicted Battle Deaths			0.505***	0.519***
			(0.090)	(0.086)
Number of Groups			-0.024	-0.064
			(0.050)	(0.089)
Democracy				1.238
				(1.714)
Log Population				0.018
				(0.264)
Log GDP Per Capita				-0.696**
				(0.234)
Constant	2.192***	0.444	-1.606*	3.259
	(0.470)	(1.598)	(0.844)	(3.658)
Log α	1.270***	1.081***	0.212	0.171
	(0.211)	(0.225)	(0.285)	(0.305)
Number of observations	243 (5 obs. dropped due to missing data)	243 (5 obs. dropped due to missing data)	243 (5 obs. dropped due to missing data)	237 (11 obs. dropped due to missing data)
AIC	1,007.019	993.833	895.186	854.289
BIC	1,020.991	1,028.763	937.103	906.309
Wald X^2	26.01	44.25	117.48	675.79
Log-pseudolikelihood	-499.509	-486.916	-435.593	-412.144

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 3

Predictive Margins with Group Age First Suicide Attack IV and Suicide Attacks DV (95% Confidence Intervals)



attacks in an average year. If its first suicide attack was at age 10, this amount has declined to 3.56 attacks, at age 20, to 1.92 attacks and at age 30, to 1.03 attacks. Therefore, a group that carried out its first suicide attack at 30 years old is predicted to carry out 6.4 times fewer suicide attacks in an average year than a group that adopted suicide terror in its first year of existence. These findings support the proposition that later adopters of suicide terror carry out fewer suicide attacks than early adopters. This dynamic will be further explored in the case study chapters, which will show how the Tamil Tigers began using suicide terror when they were already a well-established, experienced group, and carried out far fewer suicide attacks than AQI/ISIL, which started conducting suicide attacks nearly from the start of its activity.

In conducting robustness checks, I compared the NBR results to those with ZINB and standard Poisson models. When I tested H4 with ZINB models, the models do not achieve convergence in most specifications, making the ZINB unsuitable for this set of data. In using standard Poisson models, the results are similar to those achieved with the NBR, also confirming H4, but the AIC and BIC are far larger. For example, in comparing fully-specified models, in the Poisson model AIC=1,227.147 and BIC=1,275.7, while in the NBR model AIC=854.289 and BIC=906.309. These robustness checks confirm the appropriateness of analyzing this data with an NBR.

The results of fractional logistic regressions where *Percent Hard Targets* and *Percent Soft Targets* are the dependent variables are shown in tables 6 and 7. These results do not support H2 and H3, but do provide support for H6 and H7. The coefficients on *Group Age* in both regressions are not in the predicted directions and do not come close to standard measures of statistical significance. The analysis shows that increased group age is not associated with targeting decisions in suicide attacks, either increasing the proportion of attacks on hard targets or decreasing the proportion of attacks on soft targets. The results disconfirming H6 and H7 signal potential limitations with the *Group Age* variable as a measurement of organizational development, and in addition none of the other control variables for non-ideological organizational characteristics are significant. This indicates that more testing needs to be done on other potential variables that can proxy for the structural and bureaucratic features of groups that influence targeting decisions. There are also limitations in the data I am using. More than a third of suicide attacks (2,459 out of 7,269) in the GTD from 1981-2019 have an unknown perpetrator (START 2021a). For Iraq, the most prolific case, nearly half of them have an

Table 6

Fractional Logistic Regression Models Predicting Percent of Suicide Attacks on Hard Targets, 1998-2012

DV: Percent Hard Targets	Model 1	Model 2	Model 3	Model 4
Group Age	-0.003	-0.006	-0.006	-0.001
	(0.015)	(0.016)	(0.016)	(0.021)
Troops Per 1,000 Population	-0.065***	-0.039	-0.036	-0.077*
	(0.015)	(0.024)	(0.023)	(0.040)
Islamist Ideology		-0.533	-0.468	-0.610
		(0.510)	(0.484)	(0.421)
Ethnic Ideology		-0.509*	-0.602*	-0.265
		(0.276)	(0.341)	(0.333)
Group Size		-0.232	-0.124	-0.111
		(0.207)	(0.251)	(0.249)
Territorial Control		0.245	0.057	-0.124
		(0.384)	(0.304)	(0.331)
State Sponsor		-0.654	-0.599	-0.635
		(0.515)	(0.564)	(0.767)
Social Service Provision		0.125	0.002	0.120
		(0.404)	(0.437)	(0.443)
Group-Inflicted Battle Deaths			-0.022	0.001
			(0.080)	(0.094)
Number of Groups			-0.089	0.037
			(0.071)	(0.079)
Democracy				-1.994
				(1.428)
Log Population				-0.448*
				(0.270)
Log GDP Per Capita				0.045
				(0.222)
Constant	1.248***	2.261*	2.570**	10.292*
	(0.222)	(0.978)	(0.826)	(4.820)
Number of observations	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	117 (9 obs. dropped due to missing data)
Wald X^2	33.70	38.95	60.25	102.65
Log-pseudolikelihood	-75.443	-74.341	-73.658	-69.529

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7

Fractional Logistic Regression Models Predicting Percent of Suicide Attacks on Soft Targets, 1998-2012

DV: Percent Soft Targets	Model 1	Model 2	Model 3	Model 4
Group Age	0.004	0.008	0.009	0.004
	(0.015)	(0.016)	(0.016)	(0.020)
Troops Per 1,000 Population	0.063***	0.038	0.033	0.073*
	(0.014)	(0.025)	(0.023)	(0.041)
Islamist Ideology		0.630	0.567	0.703*
		(0.497)	(0.461)	(0.403)
Ethnic Ideology		0.521*	0.637*	0.294
		(0.277)	(0.347)	(0.338)
Group Size		0.225	0.123	0.115
		(0.210)	(0.251)	(0.250)
Territorial Control		-0.215	0.013	0.191
		(0.389)	(0.306)	(0.328)
State Sponsor		0.619	0.547	0.575
		(0.506)	(0.545)	(0.732)
Social Service Provision		-0.117	0.034	-0.068
		(0.401)	(0.428)	(0.432)
Group-Inflicted Battle Deaths			0.004	-0.019
			(0.079)	(0.092)
Number of Groups			0.097	-0.024
			(0.072)	(0.082)
Democracy				1.812
				(1.418)
Log Population				0.443
				(0.279)
Log GDP Per Capita				-0.015
				(0.221)
Constant	-1.277***	-2.396**	-2.677***	-10.523*
	(0.229)	(0.983)	(0.824)	(4.960)
Number of observations	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	117 (9 obs. dropped due to missing data)
Wald X^2	33.57	40.82	66.05	107.20
Log-pseudolikelihood	-75.171	-74.011	-73.202	-69.247

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

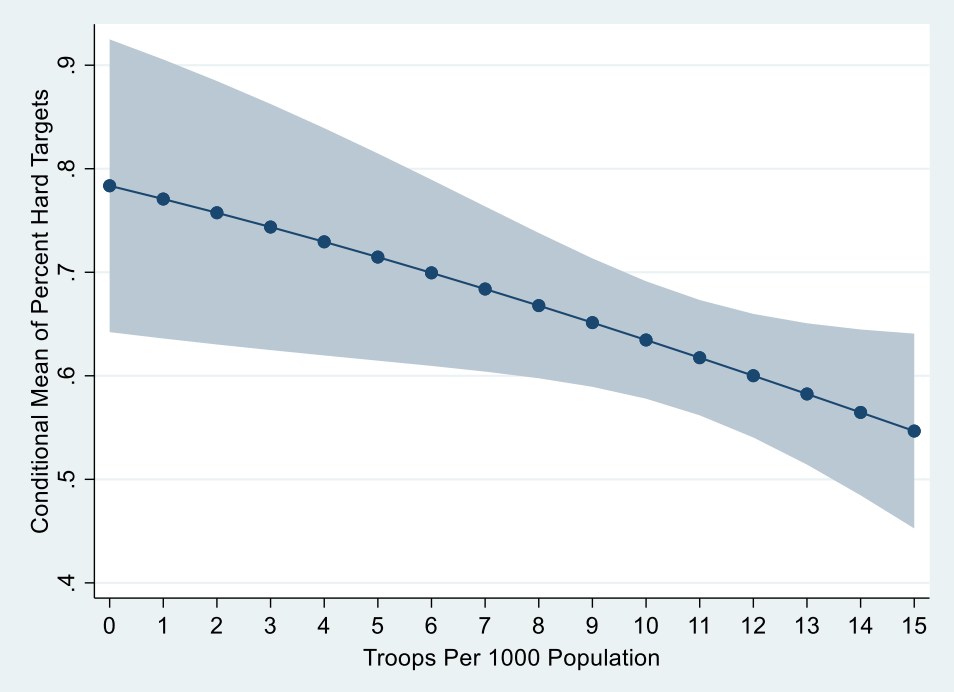
unknown perpetrator (1,347 out of 2,701) (START 2021a). Additionally, the BAAD dataset covers a relatively short time period (1998-2012), and is therefore missing a particularly large surge in global suicide attacks that occurred from 2013 onward (START 2021a).

The coefficients on *Troops Per 1,000 Population* in the regressions are in the directions predicted by H6 and H7 with p-values less than 0.05 in different model specifications. Increased government troop levels are shown to be associated with a decrease in the proportion of suicide attacks against hard targets and increase in the proportion of attacks against soft targets. For the regression with *Percent Hard Targets* as the dependent variable, the coefficient is negative and significant in models 1 and 4, and comes close to significance at the 95% confidence level in model 2 (p=0.056) and model 3 (p=0.062). When *Percent Soft Targets* is the dependent variable, the coefficient is positive and significant in models 1 and 4, and close to significant in model 2 (p=0.063) and model 3 (p=0.078).

The predictive margins for *Troops Per 1,000 Population* in the fully-specified models are presented in figures 4 and 5. Figure 4 shows that when a state has one soldier per thousand population, on average groups are predicted to carry out 77.1% of their suicide attacks against hard targets. When the number of state troops increases to five per thousand population, this figure declines to 71.5%, at 10 per thousand population, to 63.5%, and at 15 per thousand population, to 54.7%. Figure 5 shows that at one soldier per thousand population, on average groups are predicted to carry out 23% of their attacks against soft targets. At five troops per thousand population, this figure declines to

Figure 4

Predictive Margins of Troops Per 1,000 Population IV with Percent Hard Targets DV (95% Confidence Intervals)

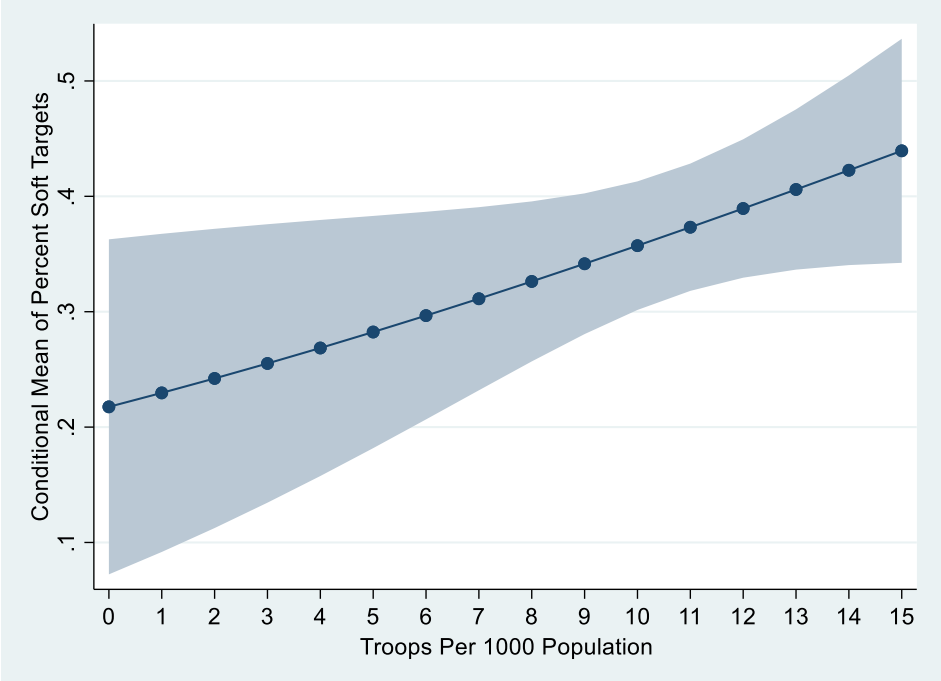


28.2%, at 10 per thousand population, to 35.7%, and at 15 per thousand population, to 43.9%.

These targeting patterns are consistent with how major insurgent groups such as the Taliban, LTTE, and ISIL have responded to influxes of government and government-aligned troops. During the first term of the Obama administration, the US "surged" troops into Afghanistan to fight the growing Taliban insurgency. American and NATO troops reached their highest level in 2009-2012 (NATO 2021). In the three years before President Obama's Afghanistan surge (2006-2008), the Taliban carried out 91.6% of their recorded suicide attacks against hard targets and 7.2% of their attacks against soft targets (START 2021a). During the surge period, their attacks on hard targets declined to 75.4%

Figure 5

Predictive Margins of Troops Per 1,000 Population IV with Percent Soft Targets DV (95% Confidence Intervals)



of the total and their attacks on soft targets increased to 22.4% of the total (START 2021a). The US withdrawal from Afghanistan began in 2012 and the vast majority American troops had left the country by the end of 2014 with the transition from what was primarily a combat mission to one focused on supporting the Afghan government's military (Morgan 2021, 451-452, 456-457; NATO 2021). In the years 2013-2015, with the surge troops withdrawn along with the broader drawdown in the American presence, Taliban suicide attacks against hard targets increased to 86.1% of the total and their attacks against soft target decreased to 11.6% of the total (START 2021a).

The case of the LTTE demonstrates that well-established guerrilla organizations also shift their targeting priorities in response to military pressure. In July 2006, the Sri

Lankan government began its final offensive to defeat the group, and significantly built up its military (Darusman, Ratner, and Sooka 2011, 15; Hashim 2013, 164-165). The Sri Lanka Army (SLA) increased from 111,000 personnel (5.5 troops per thousand population) in 2006 to 151,000 (7.4 troops per thousand population) in 2007 (Singer, Bremer, and Stuckey 1972, version 6.0). While in 2006 the LTTE carried out 100% of their recorded suicide attacks against hard targets, from 2007 until its defeat in 2009, 70.4% of their attacks were against hard targets and 25.9% of their attacks were against soft targets (START 2021a).

ISIL, by far the most prolific user of suicide terror, also followed a similar pattern. At the height of its military power and success in 2014-2015, 75.9% of its suicide attacks were against hard targets and 19.8% were against soft targets (Fairfield, Wallace, and Watkins 2015; START 2021a). To combat ISIL and train the Iraqi military, a coalition of 85 countries and international organizations was assembled (Global Coalition 2023a; 2023b). This included several thousand troops from the US and other NATO countries who fought in coordination with a rebuilt Iraqi army and tens of thousands of Kurdish forces and members of pro-Iraqi government militias (Jones et al. 2017, xii, 20, 83-85; Peters 2021, 13-14; Wasser et al. 2021, 79-80, 167-168, 250-251). As ISIL-controlled territory was rolled back in 2016-2017, the record of its recorded suicide attacks shows a shift with attacks on hard targets declining to 60.7% of its total and attacks on soft targets increasing to 31.3% of its total (START 2021a).

The control variables in the fractional logistic regressions in tables 6 and 7 that are found to have statistically significant effects in some models include *Ethnic Ideology* and *Log Population*. No other control variables have coefficients that reach standard

measures of statistical significance. *Ethnic Ideology* is significant with $p<0.05$ in models 2 and 3 for both sets of regressions. The coefficient is in the predicted positive direction when *Percent Hard Targets* is the dependent variable, and is in the predicted negative direction when *Percent Soft Targets* is the dependent variable. The results show that non-state armed groups with an ethnic ideology attack a lower proportion of hard targets and a higher proportion of soft targets out of their total suicide attacks. This is consistent with the conflict literature that finds that civilian targeting is more common in ethnic conflicts due to perpetrators having an easier time justifying violence against noncombatants of the out-group (Aliyev and Souleimanov 2019, 472-482; Bloom 2005, 79; Kaufmann 2006; Stanton 2015).

Islamist Ideology was also expected to be associated with a decrease in the proportion of group suicide attacks against hard targets and an increase in the proportion of attacks against soft targets, based on similar reasoning. However, while the coefficients in both regressions are in the same predicted directions as those for *Ethnic Ideology*, they are not statistically significant. *Log Population* is also significant and the coefficient is in the predicted negative direction with *Percent Hard Targets* as the dependent variable. This prediction is based on the idea that in higher population countries, potential hard targets are greatly outnumbered by potential soft targets, reducing the proportion of attacks on hard targets. Therefore, with *Percent Soft Targets* as the dependent variable, the coefficient on *Log Population* was predicted to be positive. This is indeed the case in the results, and the coefficient is close to significant ($p=0.056$). The last of the findings in the controls that I wish to highlight is the non-significant effect of *Group Size*. As occurred with the ZINB models, while the number of state troops was

a significant explanatory factor for group targeting decisions with suicide attacks, *Group Size* was not. The explanation I provided for this result in the ZINB models applies in a similar manner to the result in the fractional logistic regressions, indicating that when it comes to targeting decisions, it is not group size, but the group having leaders and commanders with expertise in conducting certain types of attacks that is the more influential factor.

The final set of fractional logistic regressions have *Percent Suicide Attacks* as the dependent variable, and the results of the analysis are shown in table 8. The analysis strongly supports H8, as the coefficient on *Troops Per 1,000 Population* is in the predicted positive direction and significant with 95-99.9% confidence across model specifications. Increased government troop levels are found to be strongly associated with an increased proportion of suicide attacks out of total group terror attacks. Figure 6 shows the predictive margins for the *Troops Per 1,000 Population* variable. At one soldier per thousand population, on average the percent suicide attacks out of total group terror attacks is 2.3%, increasing to 4.2% at five troops per thousand population, to 8.2% at 10 per thousand population, and to 15% at 15 per thousand population.

These figures track with the record of attacks by Palestinian groups in my dataset, which face an Israeli military that averaged 25.5 troops per thousand population from 1998-2012, the highest troops per capita level in the dataset (Singer, Bremer, and Stuckey 1972, version 6.0). During this period, 19.6% of terror attacks by these groups were suicide attacks (127 out of 648), compared with the group average in the dataset of 6% (START 2021a). This demonstrates how military asymmetry and extreme military pressure leads groups to increase their reliance on suicide terror. The historical record

Table 8

Fractional Logistic Regression Models Predicting Percent Suicide Attacks out of Total Terror Attacks, 1998-2012

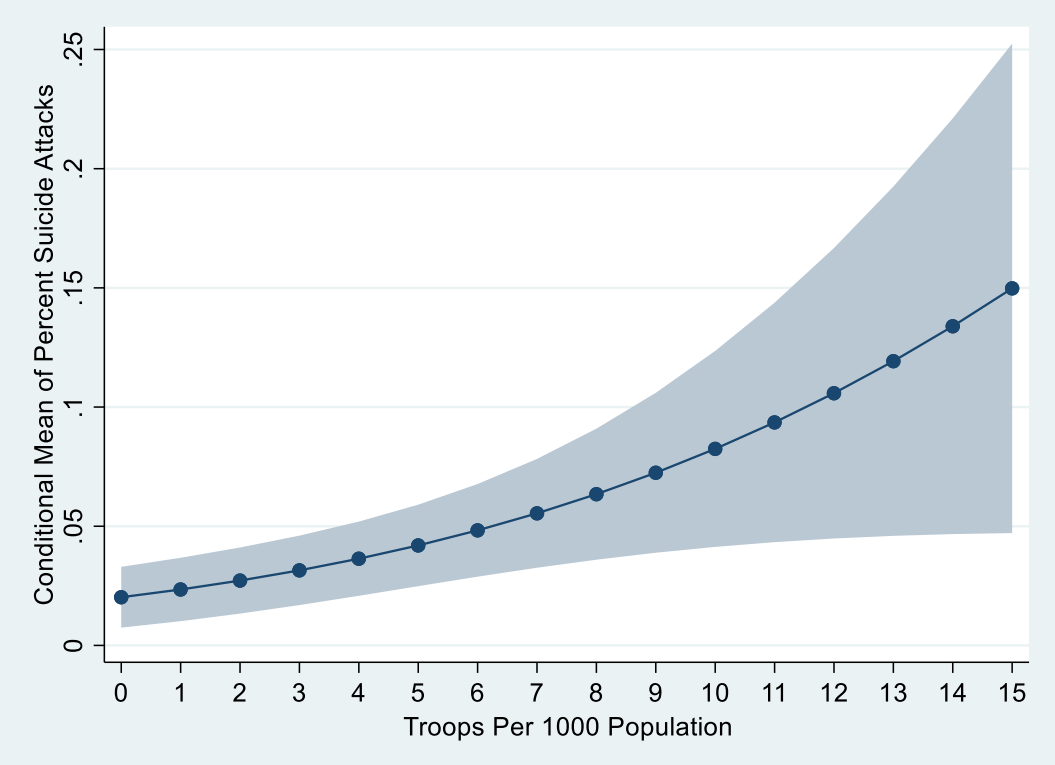
DV: Percent Suicide Attacks	Model 1	Model 2	Model 3	Model 4
Group Age	-0.038**	-0.020	-0.017	-0.009
	(0.014)	(0.019)	(0.019)	(0.023)
Troops Per 1,000 Population	0.076***	0.067*	0.084**	0.159***
	(0.022)	(0.030)	(0.028)	(0.046)
Islamist Ideology		1.705***	1.533**	1.422**
		(0.516)	(0.567)	(0.601)
Ethnic Ideology		-0.306	-0.218	0.044
		(0.529)	(0.563)	(0.420)
Group Size		0.147	-0.028	-0.072
		(0.240)	(0.251)	(0.247)
Territorial Control		-0.624	-0.931*	-0.919*
		(0.482)	(0.421)	(0.410)
State Sponsor		-0.368	-0.364	-0.487
		(0.607)	(0.581)	(0.642)
Social Service Provision		-0.070	-0.097	0.034
		(0.373)	(0.294)	(0.368)
Group-Inflicted Battle Deaths			0.239**	0.277***
			(0.087)	(0.081)
Number of Groups			0.036	0.047
			(0.069)	(0.081)
Democracy				-2.395*
				(1.312)
Log Population				0.265
				(0.194)
Log GDP Per Capita				-0.092
				(0.294)
Constant	-2.871***	-4.076***	-4.806***	-8.858**
	(0.364)	(0.787)	(0.831)	(3.632)
Number of observations	599 (8 obs. dropped due to missing data)	599 (8 obs. dropped due to missing data)	599 (8 obs. dropped due to missing data)	573 (34 obs. dropped due to missing data)
Wald X^2	15.98	31.97	110.35	130.95
Log-pseudolikelihood	-119.836	-110.439	-106.407	-99.923

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 6

Predictive Margins of Troops Per 1,000 Population IV with

Percent Suicide Attacks DV (95% Confidence Intervals)



going back to World War II shows how facing defeat may drive a military organization to become more reliant on suicide attacks, as illustrated by Japanese *kamikaze*. As Japan's final defeat closed in, it escalated its use of *kamikaze* attacks, carrying out over 1,400 such attacks in the Battle of Okinawa alone (April-June 1945) (David 2020, 300-302; Hill 2006, 5, 12).

This pattern repeated in modern conflicts involving the LTTE and ISIL. As the Sri Lankan government advanced its final offensive in 2008-2009 that culminated in the total elimination of the LTTE, 22.7% of its terror attacks (22 out of 97) were suicide attacks, compared with 4.9% (13 suicide attacks out of 266 total terror attacks) in 2006-2007

(Darusman, Ratner, and Sooka 2011, 16, 36; Hashim 2013, 163, 148, 185-186, 224; START 2021a). In 2009 alone, 44.4% of its attacks (12 out of 27) were suicide attacks, the highest such recorded figure for the group (START 2021a). During ISIL's relatively unchallenged expansion in 2014, 12.3% of its attacks (154 out of 1,251) were suicide attacks (START 2021a). As it received severe blows from the international coalition in 2015-2017, its use of suicide terror ramped up to 27% of its attacks (1,100 out of 4,072) (START 2021a).

Significant control variables in the fractional logistic regressions in table 8 include *Islamist Ideology*, *Territorial Control*, *Group-Inflicted Battle Deaths*, and *Democracy*. The coefficient for *Islamist Ideology* is positive as expected, given how much martyrdom is woven into the culture and ethos of organizations with this ideology. *Territorial Control* is negatively associated with *Percent Suicide Attacks*, as predicted. Controlling territory may reduce military and security pressure on non-state armed groups through giving them space to "breathe" outside the government's reach. When a group's military situation is less desperate, its perceived need to rely on suicide terror is reduced. *Group-Inflicted Battle Deaths* is used to proxy for conflict intensity. The coefficient on this variable is in the predicted positive direction and strongly significant in both of the models in which it is used ($p<0.01$ in model 3 and $p<0.001$ in model 4). This result is consistent with the idea that the strain of more intense conflict increases a group's sense of military desperation, driving it to rely more on suicide attacks.

Democracy is negatively associated with *Percent Suicide Attacks*. This is contrary to expectations and Pape's theory that groups fighting democracies are more likely to engage in suicide terror. This result may be due to the fact that suicide terror in recent

times appears to be more connected with internal conflicts and civil wars, which are less likely to occur in democracies (Gleditsch and Ruggeri 2010; Krain and Meyers 1997; Regan and Bell 2010). The final control that I want to discuss in this set of results is *Group Size* once again not being a significant predictor of group reliance on suicide terror in contrast with the number of state troops being a consistent and significant predictor. As was the case with the results of the previously discussed models, suicide terror being an established part of the group's repertoire of practice and procedures matters far more than the total size of the group.

To summarize, the quantitative analysis in this chapter provides evidence that as non-state armed groups age, they tend to carry out less suicide attacks. The age at which groups adopt suicide terror also impacts how much they use it, with groups that adopted suicide terror at an older age tending to carry out less suicide attacks than groups that adopted the tactic at a younger age. However, age does not appear to impact group targeting decisions. The analysis also provides evidence that increases in government troop levels lead groups to increase both their number of suicide attacks and reliance on suicide terror. Increased state military capability also leads groups to shift away from attacking hard targets and towards attacking soft targets. The validity of these findings, as well as the theoretical mechanisms behind them, will be further explained in depth in the following two case study chapters.

CHAPTER 5

CASE STUDY #1: SUICIDE ATTACKS BY THE LIBERATION TIGERS OF TAMIL EELAM AND THE ARTISAN PRODUCTION MODEL OF SUICIDE TERROR

Introduction to Cases

The following two chapters will present case study analyses of suicide terror campaigns by the Liberation Tigers of Tamil Eelam (LTTE), commonly known as the Tamil Tigers, and Al-Qaeda in Iraq (AQI), later known as the Islamic State of Iraq and the Levant (ISIL). The analyses cover the periods of the LTTE's fight for an independent Tamil state against the Sri Lankan government from 1972-2009 and AQI/ISIL's resistance against the American occupation of Iraq and its attempt to overthrow the Iraqi government and establish a new Islamic Caliphate from 2003-2017. The cases will be presented in chronological order, with this chapter discussing the LTTE and the next chapter discussing AQI/ISIL. I use these two cases to illustrate in greater depth the theoretical mechanisms and the implications of the findings presented in the theory and quantitative analysis chapters. In these chapters, I developed the propositions that the age of non-state armed groups and state military capability determines the manner and scale at which groups engage in suicide terror.

I predicted that in comparison with younger groups, older groups will carry out less suicide attacks, a higher proportion of suicide attacks on hard targets, and a lower proportion of suicide attacks on soft targets. Long-established groups are more likely than new groups to have built up a corps of skilled terror operatives and gained experience in guerrilla warfare and insurgency. Groups that possess these assets have increased

capability of carrying out spectacular attacks against strategic targets, enabling them to conduct effective terror campaigns with a smaller number of attacks. However, groups that lack these assets are less capable of effectively attacking strategic targets, forcing them to carry out a larger number of attacks against low-value targets to conduct effective terror campaigns. In addition, groups that are late adopters of suicide terror were predicted to carry out fewer suicide attacks than early adopters. For late adopters of a tactic, it is less integrated into their organizational practices and procedures, which means they are less likely to choose to employ it compared with tactical options that are a longer-established part of their repertoire. On the other hand, early adopters of a tactic are more likely to have it integrated into their established repertoire, making them more likely to continue to rely on it even if they develop more advanced capabilities over time.

The second set of propositions in this study concern the impact of state military capability. Increases in state military capability are predicted to lead groups to carry out more suicide attacks, a higher proportion of their suicide attacks against soft targets, and a higher proportion of suicide attacks out of their total terror attacks. More capable state militaries can more effectively harden strategic targets and disrupt the activities of non-state armed groups, forcing them to shift resources to attacking low-level soft targets. Increased military pressure on groups reduces their ability to conduct conventional guerrilla warfare and insurgency, increasing their incentive to turn to an unconventional tactic like suicide terror.

The theoretical mechanisms by which group age and state military capability impact group use of suicide terror indicate a potential spectrum of approaches groups may take in carrying out a campaign of suicide terror. At one end of the spectrum are

groups that possess skilled terror operatives and expertise in insurgency and/or groups facing weak state militaries. These groups are able to focus their resources on carrying out high-impact suicide attacks against high-value state targets. This approach to suicide terror can be likened to an artisan production model where a firm makes a limited number of a high-quality product, and makes a high return on investment for each good sold. The artisan production model of suicide terror is consistent with the original concept of modern suicide terror that is derived from principles of traditional guerrilla warfare. At the other end of the spectrum are groups that lack skilled terror operatives and expertise in insurgency and/or groups facing strong state militaries. These groups are forced to carry out smaller-scale suicide attacks against low-value civilian targets. This approach to suicide terror can be likened to a mass-production model where a firm makes a large number of a low-quality product, making a small return on investment for each good sold. This mass-production model of suicide terror, which I call industrialized martyrdom, has become the dominant form of suicide terror since 2001. Industrialized martyrdom is adopted by groups when they are newly-formed or lack established practices of traditional guerrilla warfare and/or face a significant and growing gap in military capability with state forces.

The propositions and theoretical mechanisms summarized above were tested quantitatively in the previous chapter. The first set of findings showed that increases in group age and the age at which groups adopt suicide terror are associated with a decrease in suicide attacks. The second set of findings showed that increases in state military capability are associated with an increase in suicide attacks, a decreased proportion of attacks against hard targets, an increased proportion of attacks against soft targets, and an

increased proportion of suicide attacks out of total terror attacks. These results provide support for the propositions that older groups and later adopters of suicide terror carry out less suicide attacks than younger groups and early adopters. The results also support the propositions that groups fighting against highly-capable state militaries are more likely to increase their use of suicide terror, become more reliant on the tactic, and shift resources from attacking hard targets to attacking soft targets. These patterns in the use of suicide terror and how they are influenced by processes in organizational formation and development as well as conflict dynamics are reflected in the cases of the LTTE and AQI/ISIL.

Justification for Case Selection

The case of the LTTE demonstrates how established groups following a traditional guerrilla warfare model can be limited and selective in their use of suicide terror due to the high skills of their operatives and their organizational expertise in insurgency. The case of AQI/ISIL demonstrates how groups that enter a conflict early in their lifetimes may resort to the prolific and indiscriminate use of suicide terror due to having fewer skilled operatives at their disposal, little organizational memory of how to conduct an effective insurgency, and facing an urgent need to make an impact and generate publicity. All of these factors incentivize groups to turn to unconventional tactics, including indiscriminate terror attacks against civilians that inflict disproportionate damage on the state and garner disproportionate attention for the group relative to the cost and skill required to carry them out. Both chosen cases also illustrate the impact of military pressure on groups in their use of suicide terror, demonstrating

how changes in the battlefield situation dynamically alter patterns in the scale of use and targeting of suicide attacks. Both the LTTE and AQI/ISIL responded to increased military pressure from state forces by increasing their use of and reliance on suicide attacks as well as shifting their attacks from hard to soft targets. Their patterns in their use of suicide terror shifted with their military fortunes. When the groups were at their strongest, they carried out fewer suicide attacks, increased their focus on attacking hard as opposed to soft targets, and were less reliant on suicide terror overall. When their fortunes declined, they carried out more suicide attacks, increased their focus on soft targets, and became more reliant on suicide terror.

These cases also represent the two distinct models of suicide terror. The Tamil Tigers' suicide terror campaign demonstrates the artisan production model characterized by the selective use of suicide attacks by high-skilled operatives against high-value targets. The artisan production model of suicide terror adopted by the LTTE is based on the original tactical logic behind suicide attacks, which were intended for attacking hard targets that non-suicide operations would not be able to reach (Horowitz 2010b, 179). One of the distinguishing characteristics of the LTTE as a non-state armed group was the professionalization of its suicide bombers. From the beginning of its use of suicide attacks in 1987, the LTTE viewed them foremost as an effective military tactic, and their aim was "primarily to win the war, not to spread terror" (Hopgood 2006, 52, 55). An Indian diplomat remarked on the group: "It would be difficult to come by a more motivated, educated, dedicated, and politicized insurgent group than the LTTE" (Dixit 1998, 67, quoted in Staniland 2014, 158). The Tamil Tigers were a prime example of a

high-capacity group, more analogous to a state military than an insurgent group, possessing a sizable ground force, navy, and even a small air force (Bose 2007, 51; Hashim 2013, 189).

Its suicide terror campaign was emblematic of the artisan model, using suicide attacks against military bases, naval vessels, and to even assassinate with suicide bombers Sri Lankan president Ranasinghe Premadasa and former Indian prime minister Rajiv Gandhi, making it the only non-state armed group to succeed in killing two world leaders (Huang 2009). Adopting this model of suicide terror fits with the LTTE's origins as a group that was founded during the Cold-War era and that followed the traditional Maoist approach to guerrilla warfare and insurgency. This approach was used by national liberation movements throughout the Third World. The LTTE viewed itself as a national liberation movement for Sri Lankan Tamils and drew its recruits from this native Tamil population.

The case of AQI/ISIL's campaign provides a contrasting example and demonstrates the mass-production, industrialized martyrdom model characterized by the frequent and indiscriminate use of suicide attacks by low-skilled operatives against low-value targets. While the artisan model describes the limited use of suicide attacks against strategic targets, the industrialized martyrdom model adopted by AQI/ISIL describes a campaign of repeated attacks on any targets of opportunity, no matter how low their strategic value. This model has its origins in the Second Palestinian Intifada (2000-2005) (Hafez 2006a, 172-174). During this phase of the Israeli-Palestinian conflict, Palestinian non-state armed groups escalated their use of suicide attacks against Israeli civilian targets. While the previous global annual high for total suicide attacks was 37 in the year

2000, Palestinian groups ramped up their suicide attacks in 2001, carrying out 22 attacks alone against soft targets (out of their 29 total attacks) (START 2021a). In 2002, at the height of the Intifada, this increased to 45 attacks against soft targets (out of 53 total attacks) (START 2021a). The wave of attacks in Israel during the Intifada coincided with 9/11 and the start of the War on Terror-era, galvanizing Islamist militants and their sympathizers around the world and in these circles the idea of using suicide attacks against civilians gained legitimacy (Ali and Post 2008, 624-627, 639). This new approach to suicide terror was a major inspiration for Iraqi insurgents in their fight against the US occupation after the 2003 invasion of the country (Hafez 2007, 168).

Therefore, adopting the industrialized martyrdom model is consistent with the historical context in which AQI/ISIL rose to prominence. During this time, transnational jihadist terror networks were gaining power and using modern communication platforms to radicalize and recruit individuals from around the world, tasks at which AQI/ISIL proved especially adept (Dodwell, Milton, and Rassler 2016; Evans, Milton, and Young 2021, 511, 521-522; Weiss and Hassan 2016, 170, 173, 175-176). AQI/ISIL took on increasingly ambitious and apocalyptic goals, from expelling the American occupier, to overthrowing the newly-installed Iraqi government and replacing it with an Islamic state, to proclaiming its intention to establish a global Islamic Caliphate. These goals are a clear contrast with the straightforward objective the LTTE sought to achieve, which was Sri Lankan Tamil national self-determination in the form of an independent state on part of the island of Sri Lanka (Bose 2007, 6). AQI/ISIL's grand vision inspired thousands of disaffected young men (and women) from a multitude of countries to join its cause in

Iraq as well as Syria (Dodwell, Milton, and Rassler 2016; Evans, Milton, and Young 2021, 511, 521-522; Felter and Fishman 2007; Peresin and Cervone 2015).

Industrialized martyrdom reached its apogee in Iraq—since 2003, 37.2% of all recorded suicide attacks in the GTD dataset from 1981-2019 have occurred there (2,701 out of 7,269) —by far the most of any country, and these attacks have killed over 26,000 people in Iraq (START 2021a). Therefore, understanding the dynamics of suicide attacks in Iraq is essential for the analysis of suicide terror as a modern phenomenon. In selecting a case of non-state armed group active in Iraq, AQI/ISIL is the strongest choice. Its suicide attacks epitomize the industrialized martyrdom model, bombing hundreds of civilian targets including marketplaces, bus stops, religious pilgrims, and minority religious communities who live in remote regions of the country. AQI/ISIL is also the largest employer of suicide terror in history, having carried out 1,612 suicide attacks, approximately 22% of the total in the GTD dataset, making it the ideal group to analyze as the representative of suicide terror in its modern form and how it contrasts with the traditional artisan production model (START 2021a).

The descriptive statistics presented in table 9 on the use of suicide attacks by the LTTE and AQI/ISIL demonstrate the relevance and validity of these cases for elucidating how organizational formation and development processes and conflict dynamics impact suicide terror campaigns. They also show that the cases of the LTTE and AQI/ISIL's suicide terror campaigns are good examples of the artisan production model and industrialized model, respectively. The vast majority of suicide attacks recorded in the GTD carried out by the LTTE from its first in 1987 until the group's defeat in 2009 were against hard targets. It also used suicide terror relatively sparingly, with suicide attacks

Table 9

Statistics on Suicide Attack Targeting and Reliance on Suicide Terror by the LTTE and AQI/ISIL

Group	Attacks on hard targets	Attacks on soft targets	Suicide attacks out of total terror attacks
LTTE	87 out of 108 total (80.6%)	18 out of 108 total (16.7%)	108 out of 1,602 total (6.7%)
AQI/ISIL	1,052 out of 1,612 total (65.3%)	459 out of 1,612 total (28.5%)	1,612 out of 7,732 total (20.9%)

accounting for 6.7% of its recorded attacks in the GTD (START 2021a). These statistics are a strong indicator that it employed the artisan production model of suicide terror and reserved its suicide bombers for its most important state targets. In comparison, AQI/ISIL is far more prolific in its suicide attacks on soft targets. Its 459 recorded suicide attacks against soft targets alone between 2003 and 2019 would rank the third-highest in total suicide attacks (attacks on both hard and soft targets) among all groups in the GTD (START 2021a). AQI/ISIL is also for more reliant on suicide terror, with suicide attacks accounting for 20.9% of its recorded attacks (START 2021a). Its record strongly indicates that it has adopted the industrialized martyrdom model of suicide terror, carrying out indiscriminate attacks against civilian targets on a mass scale.

I also conducted statistical tests to confirm that the patterns in the two groups' suicide attack data are in fact distinct from one another. Using both t-tests and Mann-Whitney *U* tests (also known as Wilcoxon rank-sum tests), I find statistically significant

differences in the attack patterns with $p<0.001$. The results tables for these tests are included in appendix C. Now that I have introduced the two cases and explained the reasons for their selection, in the remainder of this chapter I will provide an analysis of the first case: The history of the LTTE and its suicide terror campaign.

The Origins of Ethnic Conflict in Sri Lanka

The island nation of Sri Lanka, originally named Ceylon, gained independence from Britain in 1948 and today has a population of 22.2 million people (Sri Lanka Department of Census and Statistics [SLDCS] 2022). The country came into existence with long-standing ethnic cleavages that had been exploited and exacerbated by the British, and these divisions eventually erupted into a brutal 26-year war (1983-2009) that killed between 80,000-100,000 people (Nebehay and Pal 2021). Sri Lanka's main ethnic groups include Sinhalese, approximately 74% of the population, Sri Lankan Tamils, approximately 11-12%, Muslims, 7-9%, and Indian Tamils, 4-5% (SLDCS 2014; Stewart 2002, 22). Sinhalese are mostly Buddhist and Sri Lankan Tamils are mostly Hindu with a minority of them being Christian (Bose 1995, 89, 93; 2007, 10, 12-13). Indian Tamils are mostly Hindu and were brought to Sri Lanka by the British in the nineteenth and twentieth centuries to work on tea plantations (Bose 2007, 13; Horowitz 2000, 157-158, 212). Muslims are the descendants of traders from the Middle East and South Asia who settled on the island and mostly speak the Tamil language, while maintaining a distinct culture from the Tamil people (Ali 1997; Bose 2007, 35).

In a classic colonial divide-and-rule strategy, the British favored the minority Sri Lankan Tamil population over the majority Sinhalese for placements in both universities

and government jobs (Bose 2007, 16-17; Horowitz 2000, 132-133, 155-156, 162-163, 224-225, 249; Stewart 2002, 22). With independence, the Sinhalese majority gained political power and used it to attempt to correct British-imposed inequalities that disadvantaged them (Horowitz 2000, 133, 166; Stewart 2002, 22). However, this took the form of policies that explicitly advantaged Sinhalese and de facto and de jure discriminated against Tamils. Indian Tamil plantation workers were stripped of Sri Lankan citizenship and disenfranchised, reducing the Tamil vote (Bose 2007, 15; Horowitz 2000, 198, 212, 354). The government settled Sinhalese farmers in majority-Tamil rural areas viewed by the Tamil population as their traditional lands, a policy of internal colonialism that fostered a "sons of the soil" conflict dynamic (Fearon 2004, 283; Fearon and Laitin 2011, 201-203; Horowitz 2000, 263; O'Duffy 2007, 261). Under the government of the Sinhalese nationalist Sri Lanka Freedom Party (SLFP) led by Prime Minister S.W.R.D. Bandaranaike (1956-1959), the official language of the country was changed from English to Sinhala, known as the "Sinhala Only" policy (Bloom 2005, 50; Horowitz 2000, 197, 336-337, 357). This disadvantaged Tamils, especially in education and the civil service (Bose 2007, 16-17; Stewart 2002, 22-24).

Tamil protests against the language policy provoked bloody ethnic riots against them carried out by Sinhalese in 1956 and 1958 (Tambiah 1996, 82-86, 99, 238). This was emblematic of a pattern where nonviolent Tamil protest and political organizing failed in advancing the rights of the group and instead was met with violence. Tamil political elites attempted to reach a peaceful compromise with the Sinhalese that would give Tamils cultural and political autonomy in regions where they formed a majority (Bose 2007, 18, 21). However, the Sinhalese political establishment was not able to

deliver on any agreements, because of (sometimes violent) pressure from hardliners who rejected concessions to the Tamil community (Bose 2007, 19). Despite Prime Minister Bandaranaike's hardline nationalist credentials, he was assassinated in 1959 by an extremist Buddhist monk angered by his abortive attempt to grant Tamils a degree of autonomy (Bose 2007, 18-19; Hopgood 2006, 47, 337; Jeyaraj 2014). Bandaranaike was eventually succeeded as prime minister by his widow, Sirimavo, and under her premiership discrimination against Tamils for university placements and government jobs escalated in the 1970s with the implementation of pro-Sinhalese quota systems (Hopgood 2006, 47; Horowitz 2000, 244, 248-249, 380, 663-665; Stewart 2002, 24). Tamils felt further marginalized in 1972 when the government changed the country's name from Ceylon to Sri Lanka and made Buddhism the state religion (Bose 1995, 96; 2007, 14; Horowitz 2000, 244, 248-249). In this environment, militancy became increasingly popular among the Tamil population during the 1970s, and the demands of its political representative became more radical (Bose 1995, 96; 2007, 25; Horowitz 2000, 244; Staniland 2014, 147-148).

The Rise of Tamil Militancy, Sinhalese Backlash, and Escalation to Civil War

The first Tamil non-state armed groups were formed during this time period, including the Tamil New Tigers (TNT), the Tamil Eelam Liberation Organization (TELO), and the Eelam Revolutionary Organization of Students (EROS) (Bloom 2005, 51). The TNT were founded in 1972 by Velupillai Prabhakaran, changing its name to the LTTE in 1976 (Staniland 2014, 148). The group was tiny in its early years, consisting of just Prabhakaran and a small circle of his associates (Swamy 2002, 31; 2003, 26, 34). It

initially carried out a small-scale bombing campaign in Jaffna in the far north of Sri Lanka where the population is overwhelmingly Tamil (SLDCS 2011, 22; Swamy 2002, 29-31, 55). Its first major action and first recorded attack in the GTD was the assassination of Jaffna's mayor in 1975 (Hopgood 2006, 48; START 2021a). Prabhakaran himself fatally shot the mayor, who was a Tamil member of the SLFP and therefore viewed by the LTTE as a traitor to his people (Perera 2008; START 2021a).

At the same time that violent militant activity by Tamil groups was on the rise, the demands of Tamil political parties became more radical. Previously, the main Tamil party, the Federal Party, had advocated for equal status for the Tamil language and a federal political system that would grant communal autonomy to Tamils within a unified Sri Lankan state (Tambiah 1996, 84-85). However, in the 1977 election, the Tamil United Liberation Front (TULF) won the Tamil vote on a platform calling for an independent Tamil state partitioned off from Sri Lanka (Bose 1995, 96). In that same election, the United National Party (UNP), led by J.R. Jayewardene, defeated Sirimavo Bandaranaike's SLFP (Bose 2007, 24-25). Jayewardene would govern Sri Lanka as prime minister and later president from 1977-1989, and had promised in his campaign to respect Tamil rights (Tambiah 1986, 28-30). Despite this conciliatory campaign pledge, Sinhalese mobs angered by the success of the TULF and its calls for Tamil secession, once again attacked Tamils in another wave of riots (Bose 1995, 97).

Violence was met with violence as ethnic conflict on the island spiraled. The LTTE and other Tamil armed groups continued their guerrilla attacks against state targets as well as carrying out bank robberies to acquire funding (Swamy 2002, 31, 36-41). These activities prompted a harsh security response from the state, including declaring a

state of emergency in Tamil areas, passing the Prevention of Terrorism Act of 1979, which allowed for prolonged incommunicado detention of prisoners without trial, and that same year sending the military into Jaffna (Tambiah 1986, 18). Prabhakaran and other Tamil militant leaders escaped the government dragnet to Tamil Nadu province in southern India and temporarily commanded from abroad (Hopgood 2006, 48). The Sri Lankan military and security forces were dominated by the Sinhalese-majority community, and often behaved in an abusive fashion toward the Tamil civilian population, further contributing to Tamil radicalization (Bose 2007, 27). Continued insurgent attacks and violent clashes between police and civilians during local elections in northern Sri Lanka in 1981 escalated to yet another anti-Tamil pogrom in which the Jaffna Public Library was burned, destroying 95,000 historic Tamil-language books and documents (Tambiah 1986, 19-20).

In July 1983, the LTTE carried out its first major military action, ambushing a Sri Lanka Army (SLA) convoy near Jaffna and killing thirteen soldiers (Bloom 2005, 52). This attack provoked the worst anti-Tamil pogroms in Sri Lanka's history, known as Black July, which claimed the lives of 3,000 Tamils and made 150,000 refugees (Bose 1995, 97). The Sri Lankan military and government were deeply involved in riling up and organizing Sinhalese mobs (Tambiah 1996, 95-98). This wave of ethnic violence led to a surge in recruitment for Tamil armed groups, which had previously been a marginal presence within the Tamil community, and mark the beginning of the first phase in the Sri Lankan Civil War, known as Eelam War I (1983-1987) (Bose 2007, 27-29; Staniland 2014, 148, 150, 155).

Growth and Development of the LTTE, its Ideology, and its Organizational Model

The events of Black July drove tremendous recruitment for the LTTE. The group quickly grew from a few dozen operatives to several hundred (Balasingham 2004, 42; O'Duffy 2007, 257). The LTTE had committed its entire combat force of just 30 fighters to its July 1983 convoy ambush; by 1987 the group had grown to at least 3,000 fighters (Bose 2007, 28). Another consequence of Black July and previous anti-Tamil riots was the creation of a large Sri Lankan Tamil diaspora, with people fleeing violence by emigrating to India, Malaysia, Canada, United States, and Europe, creating an external base of political and financial support for Tamil militant groups, especially the Tigers (Bloom 2005, 54). The Tamil diaspora grew to nearly one-million strong and would become one of the primary sources of funding for the LTTE, both through voluntary donations and through mafia-like extortion committed by Tiger representatives (Darusman, Ratner, and Sooka 2011, 9, 114; Hashim 2013, 35, 118).

While the organization grew rapidly, it was also carefully selective in who it admitted, demonstrating its commitment to developing skilled operatives (Balasingham 2004, 42, 60-61; Staniland 2014, 157). This was in keeping with Prabhakaran's choice for the organization to follow a Marxist guerrilla warfare model. According to Anton Balasingham (2004, 26), the LTTE's chief ideologist and key member of its political wing and negotiating team, Prabhakaran "learn[ed] from the historical experiences of anti-colonial armed struggles in Africa and Latin America" and he "perceived that the guerrilla form of armed struggle was the classic method that could be adopted by a weak, oppressed nation to resist and fight back the organised military power of a modern state." Prabhakaran himself stated in a 1986 interview that "Che Guevara is the guerrilla leader

who inspires me the most" (*The Week Magazine* 1986). Beginning in the 1970s, Tamil militants had made connections with leftist nationalist groups in the Middle East, Africa, and Europe, and were influenced by their model of group development and approach to guerrilla warfare that had spread throughout the Global South during the Cold War (Swamy 2003, 41-42).

Despite the LTTE employing leftist rhetoric, most scholars and analysts doubt the group's actual commitment to Marxist ideology. Swamy (2002, 51, 57-58, 68-69) asserts that Prabhakaran lacked interest in Marxism, and that rather than Guevara his ideological hero was the Indian nationalist leader Subhas Chandra Bose, who engaged in armed resistance against the British during India's independence struggle in contrast with the peaceful methods advocated by Mohandas K. Gandhi.[14] Hopgood (2006, 47) notes that the most of the group's rhetoric is nationalist. Staniland (2014, 152) argues that Prabhakaran "aimed to build a Leninist organizational weapon without other parts of the Leninist package."

While the LTTE was strident in its Tamil nationalism and separatism, it is important to mark its formal anti-sectarianism and limited territorial objectives, which contrast with groups such as AQI/ISIL that follow a transnational and apocalyptic religious ideology (Balasingham 2004, 10, Bloom 2005, 46-47). The LTTE sought an independent state called "Tamil Eelam" in the north and east of Sri Lanka where Tamils predominate; it did not seek to overthrow the Sri Lankan government or take control of

14. Subhas Bose is a complex historical figure. While he remains widely respected as an independence leader within India, his legacy is controversial due to his collaboration with the Axis powers during World War II in the hope of using their assistance to militarily drive the British out of India (Swamy 2003, 21-24).

the entire island (Bose 2007, 6). The organization acknowledged the legitimacy of a Sinhalese right to self-determination and national independence, and was not anti-Sinhalese in its formal rhetoric. Balasingham (2004, 1-5) describes Sri Lanka as "the historical homeland of two ancient civilizations, of two distinct ethno-national formations," whose modern antagonism had its roots in British colonial policy. In both his 1986 interview with the Indian publication the *The Week Magazine* and a 2001 speech, Prabhakaran reached out to the Sinhalese people and stressed that his cause and organization was not anti-Sinhalese, rather it was fighting for the recognition and realization of national self-determination for Sri Lankan Tamils (Prabhakaran 2001; *The Week Magazine* 1986).[15]

In keeping with the idea that Prabhakaran followed a Leninist organizational model without sticking to Marxist ideology, he emphasized strict discipline, political commitment, and secrecy and discretion to ensure the survival of the group (Balasingham 2004, 26). In the group's early years, he had it keep a low profile while it focused on training and organizing cells and avoided overly risky operations, not even publicly announcing the group's existence until 1978, six years after its founding (26-27, 33). Prabhakaran followed the teachings of Mao and Guevara on guerrilla warfare by slowly building support among the Tamil population and gaining experience through small-scale acts of terror to evolve the LTTE into a proper insurgent group, and then finally seeking

15. While this rhetoric is high-minded, the LTTE had a record of ethnic and sectarian violence, include carrying out ethnic cleansing of Sinhalese and Muslims in Tamil-majority areas and targeting Buddhist holy sites (Bose 2007, 31-32, 35-36; O'Duffy 2007, 261, 271-272; Swamy 2002, 137-138, 147-148, 363; 2003, 123, 203, 219, 260, 271). This includes a suicide attack on the Temple of the Tooth, which houses a holy relic purported to be a tooth of the Buddha, and a massacre of Buddhist pilgrims (Bose 2007, 31-32; Swamy 2002, 147-148, 363; 2003, 123, 260, 271).

to develop conventional military power to directly take on government forces. The LTTE's adherence to this traditional model of gradual rebel group development would lead it to build up a corps of skilled operatives, which it could later draw from to conduct suicide attacks against strategic targets. The Tigers were able to successfully take advantage of a relatively small and weak SLA to develop its organizational capacity and practices and procedures before it began its armed campaign in earnest. During the group's developmental period of 1972-1983, the SLA averaged 17,250 personnel (1.2 troops per 1,000 population) (Singer, Bremer, and Stuckey 1972, version 6.0). This is a marked contrast with how militarized Sri Lanka had become by the final stage of the civil war in 2006-2009, when the SLA averaged 141,000 personnel (6.9 troops per 1,000 population) (Singer, Bremer, and Stuckey 1972, version 6.0).

The other major factors facilitating the LTTE's development were training and financial assistance from India and the emergence of other significant Tamil non-state armed groups that divided the Sri Lankan government's attention. The ethnic unrest in Sri Lanka attracted India's attention for both political and strategic reasons. India has a large Tamil minority of over 60 million people (in contrast with the Sri Lankan Tamil population of 2.3 million), largely concentrated in the southern state of Tamil Nadu, and Sri Lanka lies just off the state's coast (Encyclopedia Britannica 2023; SLDCS 2014). Tamil citizens of India naturally demanded that their government do something about the violent persecution of their co-ethnics in Sri Lanka, and the arrival of hundreds of thousands of Tamil refugees displaced by the Black July pogrom made this issue even more pressing and salient (Balasingham 2004, 41-42, 51; Bloom 2005, 54-55; O'Duffy 2007, 269, 272). In addition, to deal with the burgeoning Tamil insurgency, the Sri

Lankan government sought aid from Pakistan, China, and Israel, which India viewed as a threat to its strategic interests (Balasingham 2004, 49-50; Bose 2007, 29-30). Pakistan and China were India's primary enemies and rivals, and Israel was seen as a hostile proxy for the United States—particularly alarming to India was Israel's counter-insurgency and counter-terror assistance to the Sri Lankan military (Balasingham 2004, 49-50; Bose 2007, 29-30).

For all of the reasons explained above, India, led by Prime Minister Indira Gandhi (1966-1977, 1980-1984), decided to involve itself in Sri Lanka's conflict, first by providing military training and support to Tamil non-state armed groups through its external intelligence agency, the Research and Analysis Wing (RAW) (Balasingham 2004, 54-59; Bose 2007, 30; O'Duffy 2007, 262, 269). RAW set up training camps in India for Tamil groups and offered sanctuary to their leaders, providing their cadres with lessons in the "use of small arms…map reading, mine laying…the use of explosives and anti-tank and anti-aircraft weapon systems" (Balasingham 2004, 55, 58-59). Prabhakaran acknowledged the importance of India's aid in his first ever interview in 1983 with Indian journalist Anita Pratap (2001, 47), telling her "right now I am small…I need India's help to grow." It should also be noted that the LTTE as well as the other major Tamil groups had sent members to train with Palestinian militants in Lebanon in the 1970s and 1980s, where they likely gained firsthand knowledge of the suicide terror as this was the time and place where the first modern suicide attacks occurred (Bloom 2005, 54; Hopgood 2006, 50; Horowitz 2010b, 197). Training opportunities abroad enabled the rapid growth of the Tamil groups; when news of India's offer of military training reached Sri Lankan

Tamil communities, hundreds of young men answered the call and left their homes, taking the short two-hour boat trip to India (Bose 2007, 30; Swamy 2003, 84, 90, 94).

Besides the LTTE, the other major Tamil groups that benefited from the surge in recruits included TELO, EROS, People's Liberation Organization of Tamil Eelam (PLOT), and Eelam People's Revolutionary Liberation Front (EPRLF) (Staniland 2014, 155, 158; Swamy 2003, 90, 94). TELO was founded in the early 1970s, and was non-ideological aside from its Tamil nationalism (Staniland 2014, 143, 159; Swamy 2003, 94). EROS was founded in 1975 by Tamil students in London and was a leftist/Marxist group (Staniland 2014, 154; Swamy 2003, 41, 90). PLOT was founded in 1980 by a former high-ranking LTTE member who had been removed from the organization for violating its strict code of personal conduct for having a relationship with a woman (Staniland 2014, 152, 161; Swamy 2003, 51, 54, 60). PLOT also espoused a leftist ideology (Staniland 2014, 161; Swamy 2003, 42, 91). EPRLF was another leftist/Marxist group that broke away from EROS in 1980 due to dissatisfaction with that group's leadership who lived in London and were seen as ineffective and out of touch with the Tamil struggle on the ground (Staniland 2014, 155, 160; Swamy 2003, 90).

The rapid growth of multiple rival groups both threatened and potentially benefitted the LTTE. The Tigers sought and believed themselves to be the most legitimate representatives of the Tamil national cause, so the massive increase of recruits to other organizations represented a challenge (Balasingham 2004, 56, 60-61; Swamy 2003, 90-91). However, this development also offered potential advantages to the LTTE. The expansion of multiple other groups at the same time likely divided the attention of the Sri Lankan military and security services, making it difficult to focus its counter-

insurgency and counter-terror efforts on just the LTTE. In addition, because the LTTE maintained its stringent recruitment standards, low-quality, undisciplined recruits flocked to the other groups willing to take in anyone, which eventually played a role in undermining their effectiveness (Balasingham 2004, 60; Staniland 2014, 155, 157; Swamy 2003, 94).

The Military Context of the First LTTE Suicide Attack

Bolstered by Indian training and armaments, the Tamil groups went on the offensive and by mid-1985 largely controlled the Jaffna peninsula, even collecting tax-revenue, issuing postage stamps and radio licenses, selling products, and also raising funds through extorting the civilian population (Swamy 2002, 186). The Sri Lankan government was not passive in the face of these setbacks, and built up its own military capacity with continued support from Pakistan, Israel, the US, and China (Balasingham 2004, 94-95; Swamy 2003, 122). It increased the size of the SLA from 17,000 to 22,000 personnel between 1983 and 1984 and increased its military spending from 77.7 million US Dollars in 1983 to $571.1 million in 1986 (Singer, Bremer, and Stuckey 1972, version 6.0).

The Jayewardene government was determined to press for a military victory in the conflict, and in May 1987, launched "Operation Liberation" to wrest back control of the Jaffna peninsula (Bloom 2005, 55; Swamy 2002, 232, 234-235). This government counter-offensive involved 8,000 troops and the use of advanced military equipment, including planes, helicopter gunships, tanks, heavy artillery, and naval gunboats (Balasingham 2004, 95; Swamy 2002, 234-235). The Sri Lankan armed forces

demonstrated their conventional military superiority over the Tamil militants and quickly overran much of the Jaffna coastline at a huge cost of civilian life (Balsingham 2004, 95; Swamy 2003, 153). The Tamil armed groups were limited in how they could respond, as their Indian allies had mostly provided them with old small arms and light artillery in comparison with the modern heavy weaponry the Sri Lankan government was able to purchase from its own allies, such as the US, Pakistan, Israel, and China (Balsingham 2004, 49-50, 86, 94; Swamy 2003, 98-100).

At this stage of the conflict, two competing dynamics were at play that directly pertain to the theoretical mechanisms that are the focus of this study. The first was that over time, the Tamil armed groups had been able to develop skilled cadres and increase their military capacity, which made their guerrilla activities more effective. The second dynamic was the Sri Lankan armed forces building up their own military capacity and increasing the pressure on the Tamil groups. Increased state military pressure reduces the effectiveness of attacks by non-state armed groups, makes it more difficult for them to train cadres, and increases their sense of desperation. These two countervailing mechanisms, (1) the increase in combat experience and skills of non-state armed groups and (2) the increase in state military capability, account for the type of suicide terror that would emerge in Sri Lanka and explain the targeting decision behind the first LTTE suicide attack.

When the Tamils were on the verge of defeat due to the Sri Lankan government offensive, India, under the leadership of Prime Minister Rajiv Gandhi, who had come to power after the assassination of his mother Indira in 1984, decided for the first time to openly intervene in the conflict, a policy course that would lead to far-reaching

consequences for both India and Sri Lanka (Bloom 2005, 55). India communicated to the Sri Lankan government that it would not allow it to conquer Jaffna city and successfully pressured it to suspend its offensive and allow in humanitarian aid (Balasingham 2004, 96-97; Swamy 2003, 154). The LTTE took advantage of the lull in the fighting to infiltrate operatives back into territory they had retreated from and struck at SLA positions (Balasingham 2004, 97; Swamy 2002, 240). On July 5, 1987, an LTTE operative known as Captain Miller carried out the group's first suicide attack when he drove an explosive-filled truck into an SLA base, destroying the building and killing at least 40 soldiers (Bose 2007, 11; Hopgood 2006, 49; Swamy 2003, 155-156). Captain Miller is considered to be the first member of the LTTE's infamous Black Tiger suicide squads (Balasingham 2004, 97; Bose 2007, 11; Hopgood 2006, 50).

His attack illustrates how the group and conflict dynamics discussed in previous chapters impact the group decision to use suicide terror and help determine its choice of target. When the LTTE decided to launch this suicide attack it had had the benefit of more than 10 years of experience in guerrilla operations and hundreds of its fighters had received advanced military training in the safety of Indian training camps (Balasingham 2004, 58, 61; Swamy 2003, 100). These trained cadres could then impart their knowledge to recruits in Sri Lanka after their return, having a multiplier effect on the group's military capacity and institutionalizing its ability to produce skilled fighters. It is therefore unsurprising that the LTTE would select a high-value military target for its first suicide attack. The military balance in the conflict in July 1987 also incentivized the group to resort to an unconventional tactic that they had knowledge of but had previously refrained from using. At this stage in the conflict, the Sri Lankan military had developed

technological superiority over the LTTE. While the Tigers were well-trained and possessed large quantities of small arms, light artillery, and explosives, at this point in their history they lacked the heavy weapons of a modern state military (Hopgood 2006, 51; Swamy 2002, 211-212). The combination of the LTTE having highly-skilled fighters at its disposable who were capable of executing complex operations, while facing a gap in military capacity with the Sri Lankan armed forces, made a suicide attack the most effective means available to the group for attacking a military base (Hopgood 2006, 51).

Indian Intervention, Intra-Tamil Violence, and Communist Insurrection

After Sri Lanka paused its military offensive in Jaffna under heavy Indian pressure, on July 29, 1987, the two countries signed the India-Sri Lanka Accord, which brought Eelam War I to a close and was supposed to achieve a political settlement to end the conflict on the island (Bose 2007, 32; Swamy 2002, 247). The agreement pledged to maintain the territorial integrity of Sri Lanka while reforming it as a "multi-ethnic, multi-religious" state that gave the Tamil ethnicity and language official status and would establish an autonomous province in the Tamil-majority northeastern region (Swamy 2003, 157). The terms of the Accord would be directly enforced by India through the creation of the Indian Peace Keeping Force (IPKF), which would provide security in the northeast, while the SLA had to withdraw to its barracks in this region (Bloom 2005, 57; Bose 2007, 33). Thousands of Indian troops poured into the country and were initially warmly greeted by the Tamil population as saviors from the oppression and war they had been suffering (Swamy 2003, 165-166).

However, what would prove to be the decisive sticking point in the Accord's implementation was its provision that all Tamil militant groups be disarmed and turn their weapons in to the IPKF, including the LTTE (Bose 2007, 33; Swamy 2003, 167). The LTTE initially appeared to cooperate with the IPKF on disarmament, but soon stonewalled and actually worked to set up confrontations between Indian troops and Tamil civilians (Swamy 2002, 250-253; 2003, 172-174). As so often occurs with foreign interventions, a military force initially welcomed as liberators by the Tamil population eroded its goodwill (Swamy 2002, 261-262; 2003, 175). The LTTE was primed to play the spoiler role for India's plans given its dominant position in the Tamil community. In 1986, the Tigers began systematically eliminating the other Tamil armed groups, first destroying the Indian-allied TELO, and then PLOT, with surprise attacks while these organizations were distracted by their own factional infighting (Staniland 2014, 163-164). India remained determined to implement the Accord and made the fateful decision to attempt to disarm the LTTE by force, and by October 1987 the IPKF and the LTTE were openly at war (Swamy 2002, 268).

India rushed in reinforcements and the IPKF grew in size from 5,000 to 105,000 soldiers, pitted against 3,000 LTTE fighters (Bose 2007, 34; Swamy 2003, 185-186). The Tigers executed a traditional guerrilla campaign, relying on hit-and-run and ambush tactics and blending in with the civilian population (Swamy 2002, 270-271). The IPKF struggled at counter-insurgency and had difficulty distinguishing between LTTE fighters and civilians, leading to widespread causalities among innocent Tamils and turning this population against India (Swamy 2003, 186, 189). India continued to follow the pattern of previous failed counter-insurgency campaigns in history by attempting to co-opt a

portion of the Tamil community to use as an indigenous proxy force to maintain security, echoing America's "Vietnamization" policy during the later years of the Vietnam War (Gilbert 2002, 181-182, 186-187; Record 2002, 123; Swamy 2002, 286-287). The largest remaining anti-LTTE and pro-India Tamil group was the EPRLF, so India installed it as the governing party of the northeastern province and reorganized its fighters into the Tamil National Army (TNA) (Staniland 2014, 165-168). India provided the TNA with advanced weapons and the group drastically boosted its ranks through conscription as well as through abducting children (166-168). These unwilling and unskilled recruits were no match for the disciplined and battle-hardened LTTE, and were either killed or deserted en masse, while Tiger hitmen assassinated most of the TNA's leadership (168). After the destruction of the TNA/EPRLF, the only major non-LTTE Tamil group left was EROS, and due to it having maintained relatively good relations with the Tigers, it was peacefully absorbed by the LTTE (Bloom 2005, 58, 60; Staniland 2014, 165-166, 169; Swamy 2003, 132, 136, 150).

India's position in Sri Lanka also become untenable due to widespread opposition to its presence from the Sinhalese community, which viewed the IPKF as a foreign occupier that had violated Sri Lanka's sovereignty (Pratap 2001, 72; Swamy 2002, 248; 2003, 171). Sinhalese nationalist opposition to the Indian intervention found its strongest voice in a communist organization called the Janatha Vimukthi Peramuna (JVP), which means People's Liberation Front in the Sinhalese language (Bose 2007, 34; Pratap 2001, 72). The JVP had previously staged a rebellion in 1971 to overthrow the Sri Lankan government and bring about a communist revolution on the island, which the military put down with international assistance at the cost of 10,000 lives (Swamy 2002, 18). The JVP

successfully mobilized public opposition to the IPKF and launched a new, larger insurrection in 1988 that had greater grassroots support and was better organized and armed than its 1971 attempt (Balasingham 2004, 16, 142; Swamy 2002, 27, 284, 301). With the country paralyzed by violence and civil unrest, public support for President Jayewardene, who had negotiated the India-Sri Lanka Accord with India, collapsed, and he decided not to run for reelection in 1988 (Swamy 2002, 285). His prime minister and fellow UNP member, Ranasinghe Premadasa, won the 1988 presidential election on a platform that called for the withdrawal of the IPKF (Swamy 2003, 205).

President Premadasa took office in 1989 and was determined to get Indian troops to leave Sri Lanka. This desire led him to enter into a tacit alliance with the LTTE, which included supplying it with arms to increase the pressure on India, a remarkable turnabout for a government and an organization that were formerly sworn enemies (Pratap 2001, 60; Swamy 2003, 208-209). India had alienated both the Tamil and Sinhalese communities, making its "peace-keeping" mission in Sri Lanka politically unsustainable. Prime Minister Rajiv Gandhi's political standing was greatly damaged by both high Indian casualties in the conflict, as well as a corruption scandal, and he was defeated in 1989 parliamentary elections by a coalition that had pledged to withdraw Indian troops (Swamy 2003, 207, 210). The new Indian government kept to this promise and the last IPKF contingents left Sri Lanka in March 1990. India lost 1,155 soldiers in its intervention in Sri Lanka (against 711 LTTE fighters killed) and accomplished none of its objectives (Bose 2007, 34; Pratap 2001, 59). After the withdrawal of the IPKF, the LTTE established control over the northeast and maintained a *modus vivendi* with the Sri Lankan government, which kept its military in the region in its barracks (Pratap 2001,

60). The remaining part of this highly complex phase in the Sri Lankan conflict, the JVP rebellion, was put down by government forces by the end of 1989 in a dirty war that resulted in the death and disappearance of tens of thousands of people (Human Rights Watch 1990; Pratap 2001, 75-80).

The tactical choices of the LTTE during the 1987-1990 period of the Indian intervention bear analysis, because even though the Tigers engaged in fierce combat with Indian troops, they never resorted to suicide attacks. This is a curious choice in light of my empirical findings, as fighting against 100,000 Indian soldiers should have increased the LTTE's sense of military desperation and incentive to use suicide attacks. It had debuted its use of the tactic in response to a successful Sri Lankan military offensive, yet refrained from deploying it against the far more powerful Indian Army. As will be discussed in more detail in the next section, after the departure of Indian troops, the LTTE resumed suicide attacks on Sri Lankan targets. Therefore, its lack of suicide attacks against the Indian military appears to have been a deliberate tactical or strategic choice. Hopgood (2006, 52) theorizes that at this point in the conflict, the LTTE had not yet fully developed a systematic recruitment and training program for the Black Tiger squads and was not ready to effectively deploy them. If this is the case, then Captain Miller's bombing can be interpreted as a one-off experiment against a target of opportunity, and when it was successful the LTTE decided to spend additional time in developing high-skilled suicide bombers to maximize the effectiveness of future attacks. This approach would be in keeping with the careful and methodical manner in which the group evolved itself from a small, poorly-equipped gang to a large and professional military organization.

An alternative explanation is that despite the LTTE's violent break with its former Indian patron, it still held out hope for a future reconciliation, and engaging in extreme acts of terror could have completely forestalled that possibility. Prabhakaran even wrote three letters to Prime Minister Gandhi between 1987-1988 pleading for a ceasefire and promising cooperation in implementing the India-Sri Lanka Accord (Balasingham 2004, 123-128). When the LTTE later assassinated Gandhi in 1991 on Indian soil after he had left office with a suicide bomber, India did become an implacable opponent of the LTTE (O'Duffy 2007, 272, 274). In addition, during the Tigers' resistance against the Indian intervention, they sought out an alliance of convenience with the Sri Lankan government, which agreed to provide them with arms; had they continued with a suicide terror campaign during this sensitive time, this may have made the group too toxic for the government to consider cooperating with it.

The LTTE's Development of the Black Tigers and Conventional Military Capacity

With the departure of the IPKF and the JVP vanquished as a military force, an uneasy peace came over Sri Lanka. The LTTE was in de-facto control of the northeast and had entered into negotiations with Sri Lankan President Premadasa (Swamy 2003, 207-208, 211-212). There appeared to be a genuine opportunity to end the civil war, as Premadasa was willing to acquiesce to LTTE political rule in the northeast, and the group even formed a political party in preparation for running in provincial elections (Balasingham 2004, 178-179). However, wide gaps remained between the LTTE and the government over fundamental issues that had been key sticking points in both past and

future agreements, such as the group's arms and the constitutional status of a Tamil province within the Sri Lankan state (185-186, 189-190).

Ultimately, Premadasa's government, like those before and after it, was committed to a unitary Sri Lankan state, and the most it was willing to offer was a provincial government in the northeast with some devolved powers, and it would not tolerate the LTTE as an independent armed force (Balasingham 2004 185-186, 189-190; Bose 2007, 46). This proposal did not come close to meeting the LTTE's minimum demands, which included reforming Sri Lanka as a federation with powerful sub-national units, such as in the political systems of Switzerland and Bosnia and Herzegovina (Bose 2007, 46-47). The LTTE with good reason also refused to consider disarmament before a comprehensive political settlement to the conflict had been reached (Balasingham 2004, 190). Tensions again came to a head in June 1990, when the Sri Lankan government moved reinforcements of soldiers and police into the northeast region and attempted to reassert state authority, eventually provoking renewed fighting (Balasingham 2004, 192; Swamy 2003, 218). These clashes restarted the civil war between the LTTE and the government, beginning the next phase in the Sri Lankan conflict known as Eelam War II (Bose 2007, 34).

During this stage in the civil war, the Tigers once again expanded in size and continued to build up their military capacity, transforming themselves from a guerrilla group to the embryonic national army of a Tamil state (Pratap 2001, 62). They acquired copious arms through an elaborate maritime smuggling network, including anti-aircraft guns and surface-to-air missiles (O'Duffy 2007, 273; Hashim 2013, 166-167). They also developed homemade rocket artillery and makeshift armored vehicles (bulldozers and

tractors covered with metal plating) (Pratap 2001, 63). The Sri Lankan military upgraded its capabilities as well, growing the SLA from 22,000 troops in 1990 (1.3 troops per 1,000 population) to 110,000 in 1991 (6.4 troops per 1,000 population), and acquiring jet fighters and naval gunboats from Israel and helicopter gunships from the US (Bose 2007, 35; Singer, Bremer, and Stuckey 1972, version 6.0).

Therefore, despite the LTTE's enhanced military capacity, it still faced a conventional disadvantage against the Sri Lankan armed forces, which had also improved and continued to receive state-of-the-art military equipment from its allies. This deficit incentivized the LTTE to develop asymmetric capabilities, which took the form of the Black Tiger commando unit, specifically designed for carrying out suicide attacks (Pedahzur 2005, 24, 41, 173). The development of asymmetrical warfare assets, in this case highly-trained suicide commandos as a response to increased conventional state military capability, is consistent with my proposed theoretical mechanisms and findings. Additionally, given the LTTE's nearly two decades of guerrilla warfare experience, stable territorial control, and commitment to a Maoist/Guevarist model of rebel group development, it is predictable that the Tigers' need to acquire unconventional assets would lead it to choose to develop skilled suicide bombers focused on strategic targets, as opposed to deploying unskilled bombers to be used as cheap cannon fodder against soft targets.

Prabhakaran publicly announced the existence of the Black Tigers in 1991, describing them as follows:

> This is a voluntary group. Whenever there is a specific operation, we select someone from the group. By carrying out suicide assaults, we can terrorize the enemy, and demonstrate that though small, we have the potential to inflict heavy

> damage on them. That commitment comes from discipline…I have instilled discipline in the (LTTE), and selected a group of persons capable of renouncing their lives…We have people prepared to give up their lives. We make up a list of these people and train them. (Swamy 2003, 233-234).

Journalist Anita Pratap (2001, 70) was permitted to meet members of the Black Tigers in 1991 and gained some insight into their selection process. Out of a new batch of LTTE recruits, Prabhakaran would personally select the top 200 to be trained as Black Tigers, who would commit to carrying out a suicide mission within two years (70). Black Tigers would receive the rare honor of meeting with Prabhakaran and get to have a celebratory dinner with him before their missions (70). They were isolated from other LTTE members and received six extra months of training and indoctrination, and were distinguished by their fanatical devotion to the cause of Eelam and to Prabhakaran personally, whom they revered as a god-like figure (70). While Prabhakaran waited until 1991 to publicize the existence of the Black Tigers, they had actually been activated earlier in November 1990, around eight months after the departure of the Indian troops, when they attacked an SLA base in the Eastern Province with a suicide car bomb (START 2021a). This was followed up in May 1991 by an attack on a Sri Lankan navy ship docked on the northern coast, executed by means of a small boat filled with bombs and crewed by six operatives that crashed into the ship, killing five sailors and wounding at least five others. This operation may mark the combat debut of the Sea Tigers, the LTTE's naval division (Bose 2007, 35).

The next Black Tiger suicide attack was its most infamous and historically consequential, the assassination of Rajiv Gandhi on May 21, 1991. Gandhi became a target of Prabhakaran as he ran a vigorous campaign in the 1991 Indian elections and had

a good chance of being re-elected prime minister, and the LTTE leader was concerned that he would try to revive the India-Sri Lanka Accord and even send Indian troops back to Sri Lanka (Swamy 2002, 333; 2003, 220-221). The six planners of the operation had infiltrated into India in September 1990 by blending in with refugees fleeing the violence of Eelam War II (Swamy 2003, 222-223). They meticulously prepared for the mission, including testing whether it was possible to get close to senior Indian politicians at election rallies, and made sure to avoid speaking with locals, which would reveal their Jaffna accents (228).

The actual assassin, a young woman named Dhanu who had been trained in one of the LTTE's training camps in India, wore a suicide vest lined with C4-RDX explosives, which was hidden under her traditional clothing (Swamy 2003, 227-229). Dhanu, accompanied by the other members of her Black Tiger unit, attended a rally for Gandhi in Tamil Nadu, and she approached him as if to lay a garland around his neck, and after he allowed her to do so, she bent down to touch his feet in a gesture of respect and pressed the switch to detonate the vest, killing the former prime minister, herself, and 16 others (229-230). This assassination encapsulates the advantages of using high-skilled operatives for a suicide attack. Only highly-disciplined operatives could have kept the plot secret as it unfolded over nearly eight months, and Dhanu's composure and success in maintaining the guise of an "innocent and excited girl" allowed her to get within killing distance of Gandhi (222-229). The subterfuge that is possible in using a determined human bomb makes the use of a highly-trained suicide bomber more effective

in targeting a prominent politician than would a conventional attack, as a security entourage has a much better chance of noticing and responding to a frontal assault (Berman and Laitin 2005, 22).

The LTTE followed up their assassination of Gandhi one month later with a suicide truck bombing of the Sri Lankan Defense Ministry in Colombo, killing 60 people and wounding 50 (START 2021a; Swamy 2003, 234-235). The government attempted to pressure the Tigers with a naval blockade of Jaffna as well as an aerial bombing campaign of LTTE-held territory, which immiserated Tamil civilians and further turned them against the Sri Lankan state, but did little to degrade the Tigers' military capacity (Bose 2007, 35-36; Swamy 2003, 236). The LTTE maintained a remarkable ability to repeatedly target high-level Sri Lankan officials and politicians (Bose 2007, 36). The minister of defense was assassinated by a car bomb in Colombo in March 1991 (Swamy 2003, 219). In August 1992, the general in command of Sri Lankan troops in the north was killed by a land mine while visiting government-controlled territory in Jaffna (Bose 2007, 36; Swamy 2003, 237). Three months later, a Black Tiger bicycle bomber assassinated the chief of the Sri Lankan Navy (START 2021a; Swamy 2003, 237).

President Premadasa would be the next target. While attending a May Day parade in 1993, Premadasa's entourage was approached by a man on a bicycle who was known as a friend of the President's staff, and therefore was allowed past security (Pratap 2001, 68; Swamy 2003, 239-240). Soon after the man reached Premadasa, he detonated a suicide belt, killing the President and 23 others, including his senior staff (Chicago Project on Security and Threats [CPOST] 2021; Pratap 2001, 68). The bomber, a man in his early 20's named Kulaweerasingham Weerakumar, went by the alias Babu and had

spent two years ingratiating himself with employees at the presidential residence, including Premadasa's valet (Pratap 2001, 68; Swamy 2003, 239). This assassination was only possible through what was essentially a professional intelligence operation by the LTTE, and required the bomber to have those relevant skills, as well as a great deal of time investment and patience on the part of the organization.

It is clear that the Premadsa assassination was part of a campaign by the LTTE to eliminate the senior party leadership of the UNP (Bloom 2005, 61). During the 1994 presidential election campaign, a UNP rally was targeted by another female Black Tiger suicide bomber, killing the party's presidential candidate, its general secretary and other senior cabinet members (Bloom 2005, 61; CPOST 2021). War-weariness came over Sri Lankans, given the prowess of the LTTE, which had grown in size to 10,000 fighters by 1993 and dominated much of the northeast, and the perceived weakness of the Sri Lankan security forces (Swamy 2003, 237-238, 249). Swamy (2002, 340) summarizes the scale of the Tigers' accomplishments during Eelam War II (June 1990-January 1995): "It [the LTTE] was running a state within a state in Sri Lanka (for about five years), controlled one-third of the island's land mass and was master of two-thirds of its winding coastline, had its own police, civil administration, jails, visa system, courts [and] navy." During this period in the conflict, the LTTE carried out 11 suicide attacks, all of them against high-level military or political targets, indicating that suicide terror played a limited but crucial role in its war effort (CPOST 2021; START 2021a).[16] Suicide attacks were limited to the strategic targets that would be too difficult to destroy with non-suicide attacks.

16. Data for attacks in 1993 is taken from the CPOST Database on Suicide Attacks, as the GTD does not cover this year due to loss of data (START 2021b, 4). The CPOST database can be accessed here: http://cpost.uchicago.edu/.

By the time the LTTE had begun deploying Black Tigers, it was a well-established, high-capacity group with almost 20 years of experience in guerrilla warfare and insurgency. Therefore, when it began its suicide terror campaign it had had the time to build up the capacity to be able to train skilled suicide bombers and plan and execute complex suicide operations. Given the high investment the LTTE was making in its suicide bombers, it makes sense that its focus in using them would be against high-value targets which would make the largest impact in their conflict—giving the group the highest "return" on its investment. In contrast, using highly-trained operatives (and the time and resources that went into training them) to attack low-value targets is an inefficient use of resources and would garner a poor return on investment. These attack statistics indicate that since LTTE suicide attacks were "higher quality," they did not need to carry them out as often to have an effect. If the LTTE got a higher return on investment for each of its individual suicide attacks, it would not need to carry out as many to recoup its investment. The artisan model of suicide terror employed by the Tigers also entails a limited use of suicide attacks, because the strategic targets that this model is designed to attack are few in number in comparison with potential soft targets. The skilled operatives necessary for successfully using this model are also a scarce and valuable commodity for groups, so they can only afford to sacrifice them in limited numbers for attacks against the most important state targets.

Cycles of Negotiation and Escalation and Patterns in LTTE Suicide Attacks

The dire situation facing the Sri Lankan military during Eelam War II provided political space for politicians willing to talk peace. This allowed Chandrika

Kumaratunga, daughter of former Prime Ministers S.W.R.D. and Sirimavo Bandaranaike, to rise to power (Bose 2007, 36). Kumaratunga inherited the mantle of the SLFP party, but in contrast with the ethno-chauvinist legacy of her parents, ran on a platform of peace and liberal civic equality (Bose 2007, 36-37; Swamy 2003, 250-251). Given that both her father and her husband had been victims of political violence (her husband was assassinated by the JVP), she had credibility as a peace candidate and even garnered large support in the Tamil community (Pratap 2001, 66). Her SLFP won the 1994 parliamentary elections, bringing an end to 17 years of UNP rule and making her Prime Minister (Bose 2007, 36-37). Kumaratunga offered direct negotiations with the LTTE, which its leaders responded to positively (36-37). Later that year, she decisively won the presidential election to take Sri Lanka's highest office, and as a goodwill gesture eased an ongoing embargo on LTTE-held territory, facilitating a ceasefire in January 1995 and bringing Eelam War II to an end (Bose 2007, 37, 39; Swamy 2002, 341-342; 2003, 251-252).

However, no Sri Lankan government, no matter how dovish, would ever be willing to concede to the partition of the country and an independent Eelam. This persistent and wide gap between the Sri Lankan state and the LTTE contributed to the quick breakdown of the 1995 negotiations, dramatically punctuated by a Sea Tiger suicide attack in April 1995 against the harbor of Trincomalee, the Eastern Province's major city, in which boat bombs rammed into Sri Lankan navy ships, sinking two of them and killing at least 12 sailors (CPOST 2021; START 2021a; Swamy 2003, 254). This attack began Eelam War III, which saw the conflict escalate to its highest level yet, with the LTTE effectively employing its naval assets, surface-to-air missiles, and even

multiple-launch rocket systems (Swamy 2002, 342, 360; 2003, 255). The LTTE's decision to walk away from talks and flagrantly violate the ceasefire rallied Western nations to the Sri Lankan government's side, enabling it to launch a powerful offensive on Jaffna in October 1995 (Swamy 2003, 255). The offensive succeeded and Jaffna fell in December 1995, but this was not the decisive victory the government had hoped for, as the Tigers executed a strategic withdrawal and evacuated the civilian population of around 300,000 people with them into the highly-defensible forests of the northern mainland, leaving a deserted city for the Sri Lankan military (Bose 2007, 37-38; Swamy 2002, 340, 344-345; 2003, 255-256).

As it faced defeats, the LTTE carried out suicide attacks at its highest rate yet, with six attacks during the period of the government offensive alone, compared with 11 during the entire four and a half years of Eelam War II (START 2021a; Swamy 2002, 340-343). This wave of suicide terror focused on strategic targets, including two bombings of the SLA headquarters in Colombo, and an assault on a key oil depot on the outskirts of the capital, costing Sri Lanka 25% of its oil reserves (CPOST 2021; Hopgood 2006, 55-56; START 2021a). After the fall of Jaffna, suicide attacks on major economic targets in Colombo continued with truck bombings of the Sri Lankan Central Bank in January 1996 that killed at least 90 people and injured over 1,200, and the Colombo World Trade Centre building in October 1997, which killed and injured dozens more (CPOST 2021; START 2021a; Swamy 2003, 260). While the victims in these cases were mostly civilians, killing civilians was not the purpose of these attacks, their intent was to damage the Sri Lankan economy and thus its war effort (Hopgood 2006, 56, 59).

This wave of attacks illustrates how groups with high-skilled operatives and guerrilla warfare experience may respond to increased state military pressure with suicide attacks against strategic targets. Increased military pressure on a group incentivizes it to increase its use of suicide attacks to make up for its conventional disadvantage. If the group has developed sufficient high-skilled assets, it is more likely to select strategic targets to attack than non-strategic civilian targets, as this use of resources is the most efficient, given the time and investment put into training skilled operatives. In the specific case of the Tamil Tigers, the group possessed the elite Black Tiger corps, giving it the capability to attack strategic targets. Therefore, under increased state military pressure it increased its use of suicide attacks, while having those attacks focus on strategic targets.

The Sri Lankan government aggressively responded to these attacks, boosting its military spending to a new high of $995 million in 1998 (compared with $663 million in 1995), and launching operations to try to clear the main road connecting the northern mainland to Jaffna in some of the most intense conventional fighting of the war (Bose 2007, 41; Singer, Bremer, and Stuckey 1972, version 6.0; Swamy 2002, 353). The intensity of the conflict is reflected in the patterns of Black Tiger suicide attacks, consisting of nine attacks in 1998 and 11 in 1999 (compared with six in 1996 and four in 1997 (START 2021a). In addition, the LTTE became more reliant on suicide terror in these years, with 26.5% of its terror attacks (9 out of 34) in 1998 being suicide attacks and 26.8% of its terror attacks (11 out of 41) in 1999 being suicide attacks (START 2021a). This compares with 4% (6 out of 151) in 1996 and 7.3% (4 out of 55) in 1997 (START 2021a). These years are also notable, because for the first time some LTTE

suicide attacks targeted civilian targets that were not of strategic military, economic, or political importance, including bombings of the Temple of the Tooth in Kandy in central Sri Lanka, the country's holiest Buddhist site, as well as a public bus and a passenger ferry (CPOST 2021; START 2021a; Swamy 2003, 260).

This change in attack patterns may indicate strain on the LTTE's resources, which could have forced it to shift part of its focus to softer targets to maintain pressure on the government when it was forced into a defensive posture on the main battlefield. The intense combat of October 1995-December 1997 (a period of 2.2 years) that began with the Jaffna offensive had cost the LTTE 62 Black Tigers killed in action, according to the group's own figures, compared with 53 killed from June 1990-October 1995 (5.3 years) (Kantha 2004, citing data from Puthalvargal 2003, 20-49). This increased rate of attrition could have changed the LTTE's tactical calculations, as Black Tigers were a limited human resource. If the group was forced on to the defensive, it would need to rotate more of its most skilled fighters to defend its most sensitive military positions, as opposed to using them for offensive operations against strategic targets. Shifting high-skilled cadres to a more conventional defensive role makes less of them available to conduct suicide attacks, so the operatives available for this type of attack may be less skilled. In this situation, more suicide attacks will be directed toward soft targets, given the capabilities of lower-skilled operatives.

President Kumaratunga's decision to escalate the war cost her the support of Tamils, but at the same time her proposal to devolve some governmental powers to provinces which would grant Tamils limited autonomy also provoked a backlash from Sinhalese hardliners, leading the plan to be shelved (Bose 2007, 46; Swamy 2002, 356-

357). In addition, the government's war effort began to falter, and by November 1999, the Tigers had decisively turned the tide, driving the SLA almost entirely out of the north (Swamy 2002, 353-354). All of these factors greatly reduced Kumaratunga's popularity, and she struggled in her bid for reelection in 1999 (357). At her final campaign rally in December 1999, the LTTE decided to attempt to eliminate another head of state, and once again dispatched a female Black Tiger to complete the mission (Bloom 2005, 61). The bomber succeeded in entering the event and detonating her explosive belt, but the President survived the blast, though she was wounded and lost vision in one of her eyes (Swamy 2003, 261). Dozens of bystanders were also killed and wounded in the attack (CPOST 2021; START 2021a). The assassination attempt happened just three days before the election, and Kumaratunga was buoyed by a sympathy vote and got reelected, albeit with a reduced majority from her 1994 landslide (BBC 1999; Swamy 2002, 357).

While the President managed to get reelected, the war continued to go badly for the SLA, as the LTTE pressed its advantage in the year 2000 and conquered the Elephant Pass military base that controls land access to the Jaffna peninsula (Swamy 2002, 354-355). The SLA was able to recover thanks to emergency international military aid, and the LTTE offensive stalled at the gates of Jaffna city in April-May 2000 (Bose 2007, 42; Swamy 2002, 355). The pattern in LTTE suicide attacks during this year demonstrates the strain of its military efforts as it attempted to maintain its momentum to secure an outright victory in the war. It conducted 15 suicide attacks, its highest yearly total during the conflict (START 2021a). In terms of reliance on suicide terror, this total represented 29.4% of terror attacks (15 out of 51) for this year, the second-highest annual figure in the conflict (START 2021a).

While the SLA took significant losses in 1999, and fell to 100,000 personnel (5.4 troops per 1,000 population), it regrouped in 2000 and grew to 115,000 personnel (6.1 per 1,000 population) (Singer, Bremer, and Stuckey 1972, version 6.0). These reinforcements clearly helped blunt the LTTE offensive, and from May-November 2000 the LTTE carried out nine suicide attacks in the north and east in what appears to have been an attempt to force its way through the strengthened lines of the Sri Lankan military (START 2021a). My proposed theoretical mechanisms and findings show that when a group faces a mismatch in conventional forces it will escalate its use of unconventional tactics, which occurred in this case. Though the Tigers failed to retake Jaffna city, their victory at Elephant Pass meant that government-held territory and forces on the peninsula were cut off from the mainland of the country (Bose 2007, 41; Swamy 2002, 360-361).

The unviability of President Kumaratunga's approach to the conflict was punctuated by one of the most impactful Black Tiger operations on July 24, 2001 that targeted Bandaranaike International Airport, located north of Colombo, Sri Lanka's only civilian international airport, as well as the country's main air base, located next to the airport in the same compound (Gunaratna 2001; Subramanian 2001). A commando squad consisting of 14 Black Tigers managed to sneak into the heavily-guarded facility early in the morning and opened fire on the planes, jets, and helicopters parked on the tarmac with rocket-propelled grenades, grenade launchers, assault rifles, and machine guns (Gunaratna 2001; Subramanian 2001). The operatives destroyed 11 aircraft before either fighting to the death or blowing themselves up, including two Israeli-made Kfir jets, one MiG-27 fighter, two Mi-17 helicopters, three Chinese-made K-8 trainer aircraft, and three Airbus commercial airliners (Gunaratna 2001; Subramanian 2001). The assault caused

$350-$450 million worth of damage and damaged or destroyed a fourth of the Sri Lankan Air Force and half of the fleet of Sri Lanka Airlines (Gunaratna 2001; Subramanian 2001).

Sri Lanka's economy as a whole was severely damaged, with the country recording negative GDP growth in 2001 due to a fall in foreign tourism and trade, the first time this had happened in the country's history since its independence (Central Bank of Sri Lanka 2002, 1-3). Balasingham (2004, 351) provides a justification for the attack, arguing that since the LTTE lacked sufficient air defenses in its territories against the Sri Lankan military aircraft it needed to destroy them on the ground. Additionally, the airport was a strategic economic as well as military target, and imposing economic damage on the Sri Lankan state was intended to convince the government that it would not be able to continue the war (351-352). He also notes with satisfaction that no civilians were killed in the attack, demonstrating the Tigers' capacity for military professionalism and discipline and the advantages of deploying high-skilled operatives (351-352). Given the importance of the target and the impact of the attack, it makes sense that the LTTE was willing to sacrifice 14 of its limited and valuable Black Tigers for a single operation. The LTTE invested substantial time and resources in these fighters, so the most efficient manner in which to use them is to attack a high-level strategic target. This attack represents the epitome of the artisan production model of suicide terror, as a single operation that cost just 14 personnel caused measureable macroeconomic as well as strategic military damage. In comparison, the industrialized martyrdom model requires waves of lower-impact attacks against less-defended civilian targets in order to be effective.

Another impact of the airport assault is that it contributed to a shift in Sri Lankan politics, and the opposition UNP won parliamentary elections in December 2001 while advocating peace talks and territorial concessions to the LTTE (Bose 2007, 43; Swamy 2002, 358). This political impact illustrates Pape's theory that suicide attacks have the potential to pressure the public in democracies to demand that their governments make concessions (Pape 2003; 2005). The victory of the UNP made its leader, Ranil Wickremesinghe, the new prime minister of the country, while Kumaratunga remained president, leading to a situation of divided government known as "cohabitation" within Sri Lanka's semi-presidential political system (Bose 2007, 25, 43). The new cabinet, led by Wickremesinghe, was able to work out a ceasefire agreement with the LTTE in February 2002 under the auspices of Norwegian mediation that had been ongoing since 1999, marking the end of Eelam War III (April 1995-February 2002) (Bose 2007, 39, 43; Swamy 2002, 359).

Delegations from the Sri Lankan government and the LTTE then engaged in direct negotiations over the future constitutional arrangement of the country and setting up a transitional administration for the northeast (Bose 2007, 41, 43-46). These negotiations lasted a little over a year until the LTTE suspended its participation in them, though the general ceasefire lasted until the summer of 2006 (Bose 2007, 41, 44-45; Darusman, Ratner, and Sooka 2011, 12; Hashim 2013, 136; O'Duffy 2007, 287). The record of LTTE suicide attacks during the ceasefire demonstrates that the group made a serious effort to restrain its armed activities. From 2002 until the resumption of the civil

war in July-August 2006, it conducted only six suicide attacks, including zero attacks in 2002 and 2005, and only two in 2003-2004 (START 2021a).[17]

Fracture, Collapse, and Change in Suicide Terror Model?

While direct conflict between the government and the Tigers remained on pause, major political and military developments continued to occur that would set up the final stage of the civil war. First, in March 2004, a faction of the LTTE led by a commander known as Colonel Karuna broke away from the organization and allied with the government (Hashim 2013, 119, 122). This was a significant blow to the LTTE's military capacity, as Karuna was the commander of its forces in the Eastern Province and the 2,500-3,500 fighters who he controlled, accounting for one-quarter of the Tigers' manpower, left the group with him (119, 172). Next, in April 2004, the SLFP won parliamentary elections in coalition with the JVP, which had continued to exist as a hardline Sinhalese nationalist party after the defeat of its 1987-1989 armed rebellion (Bose 2007, 47). This result led to the replacement of the dovish Wickremesinghe as prime minister by the hawkish Mahinda Rajapaksa of the SLFP (Hashim 2013, 116-117). Later that year, the December 2004 tsunami struck Sri Lanka and killed 30,000 people on the island, especially devastating the eastern region and also taking a heavy toll on the LTTE's ranks (122, 172). An estimated 3,000 LTTE members died in the tsunami, including 2,000 Sea Tigers, and many of its naval assets were destroyed, amounting to roughly a quarter of its naval forces (122, 172).

17. During the period of direct negotiations (February 2002-April 2003) the Tigers largely ceased all terror activities, with only seven recorded total terror attacks (START 2021a).

During 2005, a covert/dirty war began taking place across the country, with assassinations of both supporters and opponents of the LTTE (Bose 2007, 53). This culminated in an LTTE sniper assassinating the Sri Lankan foreign minister, who was an ethnic Tamil (50, 307). The assassination provoked international outrage, and cost the LTTE much of its remaining sympathy as a legitimate political player, with the EU and Canada designating the Tigers as a terrorist group, which made it more difficult for it to raise funds and acquire arms (Darusman, Ratner, and Sooka 2011, 12). In the 2005 presidential election, Rajapaksa defeated Wickremesinghe (Bose 2007, 52). The election was a close-fought contest, and the LTTE actually played a role in facilitating the hardline Rajapaksa's victory by leading the Tamil community, which was inclined to support Wickremesinghe, to boycott the vote, (52-53). The Norwegian-led peace process remained stalled, until unraveling completely in July-August 2006 with the beginning of Eelam War IV, the final stage of the civil war (Darusman, Ratner, and Sooka 2011, 12; Hashim 2013, 136).

One of the primary factors that made the course of Eelam War IV proceed differently from previous stages in the conflict was the revamping of the Sri Lankan armed forces and drastic changes and reforms to its military tactics and strategy, a process described in great detail by Hashim (2013). The SLA expanded its personnel from 111,000 troops (5.5 troops per 1,000 population) in 2006 to 151,000 troops (7.4 troops per 1,000 population) in 2007, a 36% increase (Singer, Bremer, and Stuckey 1972, version 6.0). For the year 2007, Sri Lanka ranked 27th among countries on the troops per capita index, ranking in the top 14% countries in this category (Singer, Bremer, and Stuckey 1972, version 6.0). The Rajapaksa government also drastically ramped up

military spending, increasing the defense budget from $863 million dollars in 2006 to $1.79 billion in 2008, a 207% increase (Singer, Bremer, and Stuckey 1972, version 6.0). The military spending for 2008 took up nearly 20% of Sri Lanka's national budget, and enabled the military to acquire an overwhelming number of artillery, fighter jets, helicopter gunships, and also gain a new capability in the form of Israeli-made unmanned aerial vehicles (UAVs) (Darusman, Ratner, and Sooka 2011, 15; Hashim 2013, 164-165). The Sri Lankan military also developed its special forces, which would make a key impact in the final battles (Darusman, Ratner, and Sooka 2011, 16; Hashim 2013, 188-189).

The Sri Lankan military made crucial changes in its strategy and tactics that enabled the government's eventual victory in Eelam War IV, which resulted in the total destruction of the LTTE and the end of the civil war. The SLA methodically employed a "clear and hold" strategy derived from counter-insurgency doctrine that emphasized engaging and killing LTTE fighters in an area before moving on, as opposed to overrunning as much territory as possible in an advance (Hashim 2013, 40, 42). While in the past the SLA would only attack on a single front at once, allowing the LTTE to be able to successfully shift and concentrate its overall smaller forces to meet the advance, in Eelam War IV the SLA improved its military acumen and was able to attack along multiple fronts, making it impossible for the Tigers to defend all of the territory under their control (Darusman, Ratner, and Sooka 2011, 16; Hashim 2013, 148, 185-186). The Tigers were overwhelmed, outnumbered, and incurred casualties at an unsustainable rate, compounding the impact of the losses in 2004 due to the defection of the Karuna faction

and the tsunami. The LTTE could not easily replenish its ranks at this late stage of the conflict, given the time and investment it put into training its fighters.

The change in the SLA's emphasis from taking territory to engaging and killing Tigers and maintaining sustained pressure on multiple fronts quickly reduced the Tigers' numbers and forced them to retreat to a narrow lagoon in the north, accompanied by over 300,000 civilians that they used as human shields (Darusman, Ratner, and Sooka 2011, 19, 23, 28; Hashim 2013, 9, 162). Their desperate military situation forced them to increasingly rely on untrained conscripts, including large numbers of child soldiers as young as 14 years old (Darusman, Ratner, and Sooka 2011, 18, 50; Hashim 2013, 9, 151-152, 162, 194).[18] Unskilled and unwilling fighters could not make up for the experienced cadres the LTTE lost in the final decisive battles, and while the Tigers retained the capacity to inflict significant casualties on the Sri Lankan military, by the end they largely ceased to function as an effective military organization (Hashim 2013, 161-162, 193-194).

The LTTE's deteriorating position over the course of Eelam War IV led it to increase its use of suicide attacks to some of the highest levels of the civil war, become increasingly reliant on suicide terror, and attack more civilian targets. In the initial months of the war in 2006, the Tigers still retained significant military capacity, and this was reflected in the quantity and manner of their suicide attacks. They carried out four attacks during this time period, all against military targets or high level governmental officials, including a truck bombing of a bus convoy carrying military personnel that

18. The LTTE used significant numbers of child soldiers throughout the war, see Human Rights Watch (2004), but intensified the practice in Eelam War IV as it lost experienced fighters.

killed over 100 soldiers, and an assassination attempt on the defense minister in Colombo by a suicide bomber riding a three-wheeler (CPOST 2021; Hashim 2013, 190; START 2021a). As the LTTE began to face heavy defeats and territorial losses in 2007 and 2008, it increased both the total number of its suicide attacks as well as attacks against civilians. It carried out five attacks in 2007 and 10 in 2008, and five of these (one-third of the total) targeted civilians, including bombings of a bus, passenger train, and commercial shipping vessels (START 2021a).

By 2009, the Tigers were on the verge of defeat, and in the final five and a half months of the war, they carried out 12 suicide attacks, making the total for that year their second-highest annual total of the war (START 2021a). This was also the year they were by far the most reliant on suicide terror, with 44.4% (12 out of 27) of their recorded terror attacks being suicide attacks, underlining the limited conventional options they had at this point to try to turn around their dire situation. While the LTTE had lost most of its skilled cadres and military hardware, it still retained significant capabilities, and even debuted a new one in Eelam War IV in the form of the Air Tigers, its nascent air force (*Al Jazeera* 2007; O'Duffy 2007, 265). It managed to acquire a small fleet of Czech Zlin Z-143 propeller-powered planes, and carried out its first bombing raids on Sri Lankan airbases in 2007 (*Al Jazeera* 2007, START 2021a). The Tigers once again demonstrated their capacity for audacious operations on February 20, 2009, when they attempted a *kamikaze* 9/11-style attack on Colombo itself with two planes (Fuard 2009; *Sri Lanka Daily Mirror* 2009; Venkataramanan 2009). The bomb-laden planes were intended to crash into the Sri Lanka Air Force headquarters and the airbase at the international airport, and while they

were both shot down before reaching their targets, one of the planes struck a Revenue Department building, killing two and wounding 50 (Fuard 2009; *Sri Lanka Daily Mirror* 2009; START 2021a).

This attack, coming only around three months before the LTTE's final defeat, appears to have been a desperate roll-of-the-dice by the group to turn around its strategic situation. It was an attempt to signal that it still retained significant military assets and the ability to continue the war. As surrender was unthinkable to Prabhakaran, the best result he could hope for was to force a stalemate that would put domestic and international pressure on the Sri Lankan government to halt its offensive (Hashim 2013, 150). The attempted Colombo air raid represents the Tigers' final offensive effort, and they remained on the defensive for the rest of the war (Darusman, Ratner, and Sooka 2011, 19, 23, 28; Hashim 2013, 9, 162). Their remaining suicide attacks, rather than being aimed at strategic targets, amounted to delaying operations. Two examples were suicide bombings of crowds of Tamil internally-displaced persons (IDPs) who were attempting to flee the combat zone to government lines (CPOST 2021; START 2021a). The tactical purpose of these attacks was to forcibly prevent civilians from leaving its territory to keep them as human shields, and also to worsen the humanitarian crisis in the north so that the international community would pressure the Sri Lankan government to allow a ceasefire (Darusman, Ratner, and Sooka 2011, 19; Hashim 2013, 162).

These attacks are indicative of a shift in the model of suicide terror followed by the LTTE from the artisan production model to more in the direction of the industrialized martyrdom model as it lost most of its skilled fighters and military capacity. While the Tigers did not conduct waves of suicide attacks on civilian targets in the mode of

AQI/ISIL, the attacks on IDPs follow a similar strategic logic to the industrialized martyrdom model, with the aim of spreading chaos to create political opportunities for the group. Once the LTTE lost its skilled cadres, it lost the ability to employ the artisan production model and attack strategic targets with suicide attacks. These "high-quality" attacks had been an important part of its arsenal in its bid to win a conventional military victory. When this was no longer possible, the only slim chance it had for group survival was to turn to the industrialized martyrdom model and rely on cheap cannon fodder that would try to stall the Sri Lankan military as long as possible and exacerbate the suffering of Tamil civilians, in the hope that the domestic or international political situation would change.

In the war's closing months, the Sri Lankan government declared the small remaining Tiger-held territory to be a "No-Fire Zone" in which civilians would be protected, but it was nevertheless subjected to indiscriminate air and artillery bombardment by the Sri Lankan armed forces (Darusman, Ratner, and Sooka 2011, 28; Hasim 2013, 8-9). Between 3,000 and 5,000 (the government claim) and up to 40,000 (the maximum estimate in the official United Nations report on the end of the war) civilians died in the final battles of the war (Darusman, Ratner, and Sooka 2011, 41; Hashim 2013, 152, 163). On May 18, 2009, Sri Lankan forces killed or summarily executed a cornered Prabhakaran along with most of the remaining senior leadership of the LTTE (Darusman, Ratner, and Sooka 2011, 36; Hashim 2013, 163, 224). The following day, the Sri Lankan government announced Prabhakaran's death and declared victory in the civil war, while an LTTE spokesman put out a statement admitting the group's defeat (Darusman, Ratner, and Sooka 2011, 36; Hashim 2013, 1-2). During

Eelam War IV (July 2006-May 2009), the Tigers lost at least 8,000 killed as well as 10,000 captured, while the Sri Lankan government also acknowledged heavy casualties, with at least 6,261 killed and 29,551 wounded (Hashim 2013, 179, 195-196).

This chapter provided an analysis of the Tamil Tigers' suicide terror campaign to illustrate the artisan production model of suicide terror and the factors in group development and dynamic conflict interactions with the state that lead non-state armed groups to adopt the model. I analyzed the ideological influences on the LTTE leadership that drove its approach to organizational growth and development. The LTTE started out following the Mao/Guevara model of rebel group development, gradually building up its military forces and public support with the intention of evolving from a small group engaged in low-level violent activities, to a proper guerrilla/insurgent group that can inflict real casualties on state forces, to finally a professional conventional army that can effectively challenge state power. Therefore, the Tigers placed special emphasis on taking the time to train skilled cadres, which would later enable them to use the artisan production model of suicide terror and selectively employ suicide attacks against strategic targets. By the time the Tigers adopted suicide terror, they had gained years of experience in guerrilla warfare and had been able to develop highly-skilled operatives capable of striking strategic targets. Focusing on these targets was consistent with the group's strategic vision of winning a conventional military victory.

The chapter also shows how dynamic conflict interactions between the LTTE and the Sri Lankan military impacted the LTTE's suicide attack patterns. Once the Tigers adopted suicide terror, they increased their use of and reliance on suicide attacks whenever they faced a mismatch in conventional forces with the Sri Lankan military or

were under increased military pressure. The Tigers' attack patterns are consistent with my argument and quantitative results that increased state military capacity incentivizes groups to turn to unconventional tactics like suicide terror to make up for their conventional disadvantage. For most of the civil war, the LTTE chose the artisan production model of suicide terror as its unconventional force-multiplier against an increasingly large and modern Sri Lankan military.

However, by the end of the war, the LTTE was overwhelmed by superior manpower and equipment. It lost its conventional capacity necessary to achieve a military victory that is the culmination of the Mao/Guevara strategy of group development. It also lost its skilled assets needed to use the artisan production model of suicide terror that was consistent with this strategy. The loss of the LTTE's human and material resources forced it to shift more in the direction of the industrialized martyrdom model and carry out cheap, but still deadly suicide attacks that cause widespread damage. This shift reflected a change in strategy from winning a military victory, which was no longer possible, to a strategy of trying to provoke destabilization that would alter the political situation in its favor and allow it to maneuver for survival. Industrialized martyrdom works most effectively as part of a destabilization strategy, and this model of suicide terror and its use by AQI/ISIL will be the subject of the next chapter.

CHAPTER 6

CASE STUDY #2: ISLAMIC STATE SUICIDE ATTACKS AND THE INDUSTRIALIZED MARTYRDOM MODEL OF SUICIDE TERROR

The case of AQI/ISIL suicide attacks illustrates the industrialized martyrdom model of suicide terror and the factors in organizational development, state military capability, and dynamic battlefield conditions that lead non-state armed groups to adopt this model. In this chapter, I will first describe the roots of the Sunni insurgency in Iraq that began after the 2003 US invasion and which led to the rise of AQI/ISIL. Next, I will describe the origins of AQI/ISIL, its ideological underpinnings, and its organizational characteristics. After this introduction to the Iraq conflict and AQI/ISIL as a group, I will analyze how its decision to enter the conflict and fight the US military, despite being a relatively new and inexperienced group that lacked roots within Iraq, impacted its organizational development and strategic vision. These organizational factors influenced its choice of the industrialized model of suicide terror and the unprecedented scale of its use of suicide attacks and attacks against civilians. In the remaining sections of the chapter, I will overview AQI/ISIL's insurgency through its defeat in Iraq in 2017, and how the intensity of its conflict interactions with the US military and US-led coalition also impacted the number of suicide attacks it carried out and its targeting decisions with its suicide attacks. AQI/ISIL responded to increases in the military pressure placed upon it by increasing the amount of its suicide attacks and suicide attacks against civilians, and reduced suicide attacks and suicide attacks against civilians when military pressure was reduced.

The military and political realities facing AQI/ISIL when it entered the Iraqi insurgency drove its heavy reliance on these tactics. It was only a four-year old group when it began combat operations, with little activity or experience in terror or insurgency before the Iraq War, yet it chose to fight the military of a superpower. My quantitative findings show that younger groups commit more suicide attacks than older groups. Younger groups have had less time to develop capability in tactics of guerrilla warfare and insurgency and to build public support than have older groups, so younger groups have more incentives to resort to unconventional methods like suicide terror to make the fastest possible impact on a conflict and generate publicity. Younger groups have also had less time to develop skilled operatives and tactical capability, so they need to carry out more terror attacks to be effective.

AQI/ISIL did not have the benefit of going through a gradual process of group development before entering major combat, as it immediately thrust itself into a conflict situation in Iraq that had come about due to the exogenous shock of the American invasion and its aftermath. AQI/ISIL's group origins and process of entry into a conflict with a state differs from that of the Tamil Tigers, which arose gradually out of a long-standing ethnic conflict in Sri Lanka and was indigenous to the country. In contrast, AQI/ISIL was foreign to Iraq and entering a conflict environment already saturated with up to 56 distinct Sunni insurgent groups (Hafez 2007, 243-249). As a fundamentalist jihadi Salafi group, it lacked the popular support base of more moderate Sunni nationalist factions, which limited its access to Iraqi recruits with military experience (Hafez 2006b, 611). Many of AQI/ISIL's members were radicalized foreign recruits, who lacked the on the ground experience in Iraq necessary to be effective guerrilla fighters (611).

AQI/ISIL's decision to make frequent use of suicide terror from early on in its involvement in Iraq is consistent with the theoretical mechanisms and findings presented in earlier chapters.

AQI/ISIL also had increased incentives to target civilians and rely on suicide attacks due to facing a highly asymmetrical disadvantage in capability versus the US military. The group was therefore under a threatening level of state military pressure as soon as its activities were noticed, which reduced its tactical options. This early conflict environment contrasts with that faced by the LTTE, which faced a far less capable Sri Lankan military, enabling it take advantage of more time and space to develop conventional guerrilla warfare capabilities. My findings show that groups facing increased military asymmetry with the state carry out an increased number of suicide attacks, rely more on suicide terror, and attack more soft targets and less hard targets. The higher this military asymmetry, the harder it becomes for groups to attack strategic targets and effectively conduct operations.

Groups facing an increasingly restrictive security environment are forced to carry out higher numbers of smaller-scale attacks, shift resources to attacking civilian targets, and rely more on suicide terror as an unconventional force-multiplier to make up for their conventional disadvantage. Variations in the level of state military pressure and AQI/ISIL's relative strength led to changes in its targeting decisions with its suicide attacks, as well as its overall use of and reliance on suicide terror. When the group faced state military offensives and battlefield defeats, it carried out more suicide attacks and more attacks against civilians, which is also consistent with my proposed theoretical mechanisms and quantitative findings. This chapter will show how AQI/ISIL adopted the

industrialized model of suicide terror, due to its status as a relatively new organization when it began its involvement in the Iraq war, its initial political marginality in Iraq as a foreign group, and the vast asymmetry in power it faced versus the US military.

The Origins of Sunni Insurgency in Iraq

The rise of AQI/ISIL has its origins in the March 2003 US invasion of Iraq and the Sunni insurgency that began in its wake. The purpose of the invasion as articulated by the George W. Bush administration was to overthrow the government of Saddam Hussein due to its alleged possession of weapons of mass destruction and its support for global terror (Woodward 2004). Hussein's government, led by the Baath Party, was dominated by the Sunni Arab minority (approximately 20% of Iraq's estimated population of 27.1 million people in 2003), ruling over the Shia majority (55-60%), as well as the Kurdish population (15-20%) (CIA World Factbook 2023; Smock 2003; The World Bank 2023b). The conventional invasion of Iraq began on March 20 and proceeded smoothly for the Americans, as the poorly-motivated and equipped Iraqi military quickly collapsed and Baghdad fell on April 9 (Gordon and Trainor 2006, 655; Ricks 2006, 130). The US government's confident pre-war pronouncements that American troops would be "welcomed as liberators" initially appeared vindicated, as Iraqis lined the streets cheering on American military columns and celebrating the end of Hussein's oppressive rule (Gordon and Trainor 2006, 652, 741; Shadid 2003). This goodwill was quickly squandered during the tenure of the chief of the interim Coalition Provisional Authority (CPA), L. Paul Bremer (May 2003-June 2004), who issued edicts blacklisting all members of the former ruling Baath Party and summarily disbanding the Iraqi Army,

turning the Sunni population against the Americans and instantly making hundreds of thousands of men with military training unemployed and angry (Ricks 2006, 172-176). The Americans also earned the enmity of Iraqis by failing to restore basic services and by allowing widespread looting to go unchecked (149-150, 164). By the end of May 2003, the Sunnis had revolted against the US occupation and began a full-scale insurgency (Cordesman 2008, 67-68).

The heavy-handed American response to the insurgency exacerbated the situation, and ensured that public support for the uprising would grow. The US military arrested thousands of Iraqis in "indiscriminate cordon-and-sweep operations" (Ricks 2006, 209). This was a classic counter-insurgency tactic dating back to colonial-era wars in Algeria, Vietnam, Kenya, and Malaya (Kitson 1971, 49; Thompson 1972, 51; Trinquier 1964, 30). In the summer-fall of 2003, over 10,000 Iraqis were detained in hundreds of raids, and many of these detainees were held in Abu Ghraib prison, located on the western outskirts of Baghdad (Ricks 2006, 209-211, 213). Most of the Iraqis imprisoned as a result of the raids later turned out to be innocent (252, 275). Search and arrest operations often took place at night and violently intruded on the privacy and property of Iraqis, further motivating them to join the insurgency. One sheikh articulated a common sentiment that Iraqis supported insurgent attacks on US troops "because they humiliate people—breaking down gates and doors to enter homes, and beating and handcuffing husbands in front of their wives and children" (Chehab 2005, 12). Internal investigations by the US Army found systemic human rights violations by American soldiers, including demolishing the homes of suspected insurgents and taking the family members of suspected insurgents hostage (Ricks 2006, 266-267). When these repressive measures

failed to contain the insurgency, frustrated and angry American government officials and military officers decided that even harsher tactics were needed, which culminated in the notorious case of the prisoner abuse and torture that took place at Abu Ghraib (Cordesman 2008, 66; Taguba 2004; United States Senate Armed Service Committee 2008). When these abuses were revealed in 2004, it further drove the Iraqi public against the American occupation and led to further increases in recruitment for insurgent groups and the flow of radicalized foreigners into Iraq to seek martyrdom (McChrystal 2014, 136, 171-172, 200; Ricks 2006, 388).

Beginnings of AQI/ISIL, its Ideology, and its Organizational Model

The group that would become AQI and later ISIL began its life under the name Jama'at al-Tawhid wal-Jihad (Monotheism and Jihad Group), or JTJ, and was founded by the Jordanian jihadist Abu Musab Al-Zarqawi in 1999 (Gerges 2021, 62-63; MMO 2021). Zarqawi had traveled to Afghanistan to meet with the top Al-Qaeda leaders Osama bin Laden and Ayman al-Zawahiri, and while he did not join their organization at this time due to differences in strategy and ideology, they did agree to provide him with funding to set up his own group (Gerges 2021, 62-63; MMO 2021). Zarqawi's group was small and mostly inactive before the start of the Iraq War, with only one recorded attack in the GTD before 2003, an assassination of an American diplomat in Jordan (Gerges 2021, 67-68, 71; START 2021a). He managed to infiltrate into northern Iraq from Iran with 30 fighters (Gerges 2021, 70). The first attack in Iraq definitively linked to JTJ was a suicide truck bombing of the United Nations (UN) headquarters in Baghdad that killed 23 people, including the UN's top envoy to Iraq, and wounded 100 (START 2021a). In

the aftermath of the bombing, the first suicide attack of the Iraqi insurgency, almost the entire remaining UN staff left the country (Ricks 2006, 230; START 2021a). This attack would be the first of 1,612 suicide attacks between 2003 and 2019 attributed to JTJ and its future iterations, including AQI, Islamic State of Iraq (ISI), ISIL, and the Islamic State (IS), by far the most attacks of any group in history (START 2021a).

Given the ideological milieu in which Zarqawi and his followers came of age, it is unsurprising that his group would adopt suicide terror. They were products of a transnational jihadist movement that underwent major growth after the Soviet defeat in Afghanistan in 1989 at the hands of the mujahideen and spread throughout the world in the post-Cold War era (Moghadam 2008). The new jihadist groups that emerged during this time therefore came from a completely different intellectual and ideological tradition from the older leftist and nationalist groups that were prominent during the Cold War, including the Tamil Tigers. Rather than trying to overthrow a capitalist government in a country, or fighting for national liberation, jihadists sought to bring about a global religious revolution; an apocalyptic end to be brought about by apocalyptic means (Ali and Post 2008; McCants 2015). What increasingly became a distinguishing characteristic of the jihadist movement as it developed was its justification for suicide attacks, even against civilians, if they were perceived to be infidels who threatened the global Islamic community or were nominal Muslims judged to be apostates (Moghadam 2008, 143, 145-146). Since the 1980s, suicide attacks had imposed significant pain and real costs on the powerful American and Israeli states, viewed by jihadists as the primary enemies of the Muslim world, which gave the tactic further legitimacy in their movement (Ali and Post 2008, 624-627, 639).

While jihadist ideology clearly was a major influence on JTJ adopting suicide terror, the sheer scale at which its later iterations in the form of AQI/ISIL would employ the tactic distinguishes it from most other jihadist and Islamist groups. Ideology alone cannot explain the adoption of the industrialized martyrdom model of suicide terror. Zarqawi was a contemporary of bin Laden and al-Zawahiri, yet their group, while having no qualms over killing civilians, used the artisan production model and focused the vast majority of their suicide attacks on strategic targets.[19] Al-Qaeda's leaders and early membership had the benefit of combat experience against the Soviets in Afghanistan in the 1980s and were also able to take advantage of safe havens offered in both Sudan (1991-1996) and Afghanistan under Taliban rule (1996-2001) to continue military training activities (Bergen 2021, 32-52, 61-63, 72-98, 112-168). Al-Qaeda had both the time and space to train skilled operatives, and was able to meticulously plan its major suicide attacks against strategic targets over multiple years, including the 1998 bombings of the US embassies in Kenya and Tanzania, the attack on the USS Cole off the coast of Yemen, and the 9/11 attacks themselves (Bergen 2021, 112, 130-131; 9/11 Commission 2004, 68, 148-149, 190). Even in some cases where it used suicide attacks against civilian targets, such as the World Trade Center on 9/11 and the July 2005 bombings of the London transport system, these attacks were still high-impact in that they succeeded in causing significant damage and disruption to major world cities, due to the careful planning and coordination that were the product of an advanced international network that had been developed over decades.

19. One of bin Laden's main inspirations was Hezbollah's 1983 suicide truck bombing of the Marine barracks in Lebanon that led to a US withdrawal (Bergen 2021, 68, 141).

Zarqawi's generation of jihadists, in contrast with bin Laden and al-Zawahiri, often had poor, less-educated, and criminal backgrounds, limiting their ability to plan complex operations and reducing the selectivity in both their recruitment and targeting (Gerges 2021, 60-61, 93-94). Zarqawi's JTJ entered Iraq with far fewer advantages than bin Laden's Al-Qaeda in terms of secure bases and preparation time. The specific military and political circumstances that JTJ/AQI/ISIL had to contend with in Iraq, as well as its inexperience and small initial size (30 fighters) as a group when it entered the Iraq conflict, led it to choose industrialized martyrdom to compensate for its disadvantages (70). As a foreign group among numerous competing indigenous Iraqi Sunni insurgent groups that sprung up to resist the US occupation, JTJ faced the challenges of making a unique impact on the conflict and distinguishing itself, while attempting to grow its power and support. Group survival would also be an immediate challenge and concern, as JTJ was beginning operations in a security environment that included over 140,000 well-trained and well-equipped American troops (Belasco 2009, 64-66; O'Hanlon and Livingston 2011, 13).[20]

Foreign fighters, including JTJ's members, made up less than 10% of the total Sunni insurgency, which was mostly made up of native Iraqis who were former soldiers and government employees fired by the CPA (Hafez 2007, 37, 39-44; O'Hanlon and Campbell 2007, 26-27; Pincus 2006). In comparison to native insurgent groups, JTJ was at a disadvantage in terms of popular support base, knowledge of the local terrain, and

20. Data on American troop levels in Iraq from 2003-2011 is from a Congressional Research Service report by Belasco (2009) and a Brookings Institution report by O'Hanlon and Livingston (2011). There are differences between the figures in the two reports, based on periods of troop rotation and how troops in a supporting role in the wider theater of operations are counted.

military and logistical experience. As a foreign group with an extreme jihadi Salafi ideology, JTJ had a limited domestic constituency that it could initially draw from in Iraq (Hafez 2007, 37-41, 82, 109). Native Iraqi groups, including ideological Baathists and the militias formed by ex-soldiers and civil servants, had structural advantages over foreign groups in their logistics capacity and access to resources within Iraq (37-41, 49). Therefore, the native groups started off better armed and had more members with military skills, which would have made them less likely to need to rely on an unconventional tactic like suicide terror (Hafez 2007, 39-40, 45-47; Weiss and Hassan 2016, 23-24). In addition, unlike in the case of the LTTE analyzed in the previous chapter, JTJ lacked the time and space to gain experience in guerrilla warfare before entering into active combat, which further limited its tactical and strategic options.

The differences between JTJ and the Tamil Tigers in their organizational development and the security environment in which they arose had a significant impact on the differences in the use of suicide terror by the two groups. While both groups faced security pressure and resource constraints, the LTTE's initial development from the years 1972-1983 took place when the Sri Lankan military was a small (average 17,250 troops), mostly ceremonial force that had not yet modernized (Balasingham 2004, 49-50; Bose 2007, 30; Hashim 2013, 41, 90; Singer, Bremer, and Stuckey 1972, version 6.0; Swamy 2003, 16). The relative weakness of the Sri Lankan military during this period gave the LTTE the time and space to gradually build up its guerrilla warfare capabilities and popular support, following the stages of the Mao/Guevara model of group development. It could also believe that it had a reasonable chance of eventually becoming strong enough to win a military victory, which was an impossible prospect for JTJ facing off

against 140,000 troops from the world's most powerful military. The mass use of suicide terror against civilians (industrialized martyrdom) is not designed to achieve a military victory, but is instead part of a state destabilization strategy, allowing smaller and weaker groups to have a disproportionate impact on a conflict. The pattern in the use of suicide attacks against civilians is therefore consistent with the broader conflict literature that shows that non-state armed groups in a weak military position are more likely to target civilians (Hultman 2007; Kalyvas 1999; Wood 2010; 2014).

The LTTE only began using suicide terror 15 years after its founding in 1972 and 12 years after its first recorded activity in the GTD, as a response to the growing strength and modernization of the Sri Lankan military in the 1980s, due to it needing an unconventional force multiplier to make up for its increasing conventional disadvantage (Balasingham 2004, 94-95; Hopgood 2006, 51; START 2021a; Swamy 2002, 234-235; 2003, 122). Once it began using suicide attacks, it was able to use the highly-skilled cadres it had developed over the years to employ the artisan model of suicide terror and conduct limited and focused strikes on strategic targets. In the case of JTJ, it could not reasonably hope to directly defeat the American troops in Iraq, so it had an immediate need of an unconventional tactical option to make an effective impact on the conflict and attract public attention to gain more recruits and support. It therefore had increased incentives to engage in suicide terror from the start of its involvement in Iraq. Suicide attacks attract disproportionate media attention compared with other forms of terror (Jetter 2019). The emergence of dozens of Sunni insurgent groups in a short period of time also created a potential outbidding dynamic as described by Bloom's (2004; 2005)

theory, giving JTJ an opportunity to demonstrate its superior commitment to the insurgent cause through suicide attacks.

The tactic of suicide terror also played into its strategic vision. Though it could not inflict a conventional military defeat on the Americans, it could still engage in activities to disrupt the US' strategic goal of making Iraq into a stable democracy aligned with the West. While the majority of Sunni insurgent groups adhered to an ideology of Iraqi nationalism and sought to reform the Shia-dominated political system set up by the Americans to give Sunnis a fair share of power, jihadi Salafi groups pursued what Hafez (2006b; 2007) calls a "system-collapse strategy," with the goal of turning Iraq into a failed state that could become a base for global jihad. JTJ's suicide attacks were designed to tear the social fabric of Iraq and attacks aimed at Shia targets succeeded in provoking a sectarian civil war in the country (Hafez 2007, 75-78, 82-83).

This strategy is reflected in the early record of its suicide attacks. It carried out its first suicide attack only four years after its founding in 1999, and only one year after its first recorded activity in 2002 (START 2021a). From 2003-2005, it demonstrated a heavy reliance on suicide terror, with 51.9% of its terror attacks being suicide attacks (67 out of 129 total terror attacks), and a significant focus on suicide attacks against soft targets (26.9%) (START 2021a). In comparison, the LTTE was far less reliant on suicide terror from 1990-1995, with 4.1% of its terror attacks during this period being suicide attacks (19 out of 463 total terror attacks), and the vast majority of these attacks were against hard targets (84.2%) (START 2021a). These contrasting suicide attack records are consistent with my argument and quantitative findings that younger groups and groups facing highly-capable state militaries carry out more suicide attacks, a higher proportion

of suicide attacks against soft targets, and are overall more reliant on suicide terror. Zarqawi's approach to suicide terror came under criticism from Al-Qaeda's leadership, which urged him in July 2005 to refrain from attacking civilians, including Shiites, to appeal to as broad a Muslim public as possible, and to focus his military efforts on expelling American troops (Gerges 2011, 109-111; Weiss and Hassan 2016, 61). Zarqawi did not listen to this advice, certainly in part due to his extreme anti-Shia ideology, but he also appears to have had a strategic disagreement with the Al-Qaeda leadership about the most effective way of defeating the Americans (Gerges 2021, 85-86; Hafez 2007, 75-77; Weiss and Hassan 2016, 31).

Given that his group was foreign to Iraq and in its early years only made up a small percentage of the Sunni insurgency, it had little prospect of taking leadership of the insurgency and achieving a military victory. In addition, the Sunni community in Iraq was severely outnumbered by Shiites and Kurds, and its insurgency fragmented among dozens of different organizations and autonomous brigades, further dampening the chances of success (Hafez 2007, 52-53, 243-249). Zarqawi's view was that by provoking the Shiites to attack Sunnis, the Sunni community would become radicalized and unite around the jihadist cause, and in turn mobilize Sunnis from across the Muslim world, where they are the overwhelming majority (around 87-90%) to join the fight in Iraq (Hafez 2007, 75-77; The Pew Forum on Religion and Public Life 2009, 1, 8, 10, 39-41; Weiss and Hassan 2016, 31). For the first step in this plan, suicide attacks against Shia targets played a key role, as they damaged Iraq's social fabric and prospects for political reconciliation among the country's sects, forcing Sunnis to turn to the jihadists for protection (Gerges 2021, 86-87; Weiss and Hassan 2016, 31, 53).

Zarqawi's embrace of the industrialized martyrdom model of suicide terror rather than the artisan production model was shaped by a combination of organizational constraints and incentives. Industrialized martyrdom allowed him to make the most effective and efficient use of the hundreds of foreign recruits who joined his group who had high ideological commitment, but little to no combat experience. Hafez's (2007, 89, 251) study shows that of 102 identified suicide bombers in Iraq between 2003 and 2006, 84 (82.4%) were foreign, mostly from other Arab countries. Felter and Fishman (2007, 3, 18) find in captured AQI/ISIL personnel records of foreign fighters that date from 2006-2007 that 56.3% aspired to be suicide bombers. Additionally, the average age of the foreign fighters was 24-25, and 42.6% listed their occupation as students, while less than 10 individuals had declared former careers in the military (16-17). This category of foreign suicide bomber recruit did not seek to be "career" militants who would be in the fight long-term, but specifically approached a group to carry out a suicide bombing (Gambetta 2006, 311). They received little training as they were viewed as "one shot weapons" and were sent on their suicide missions soon after entering Iraq, so as not to arouse suspicion by standing out as foreigners (311).

These suicide bombers represented a very small investment for a group. Due to their lack of skills and training as guerrilla fighters, they would be ineffective against highly-guarded, high-value state targets, but could still cause great damage against low-value, lightly-defended soft targets. For these types of suicide bombers, the greatest return on investment for AQI/ISIL would be obtained in using them against soft targets. In addition to being an efficient use of resource inputs, using foreign fighters in this way furthered AQI/ISIL's "system collapse" strategy in the quickest possible manner. Given

the United States' significant commitment in resources and manpower to its goal of making Iraq into a Western-aligned democracy, AQI/ISIL had limited time to disrupt the American plans before the new political system could be consolidated. It could not afford to spend years planning elaborate operations, as had bin Laden's Al-Qaeda. This time constraint meant that AQI/ISIL would have to deploy its suicide bombers quickly, so they could not receive the extensive training that the LTTE gave to its Black Tigers. In addition, even if AQI/ISIL was able to train skilled suicide bombers, they would not provide much more additional help than unskilled bombers for furthering its state destabilization strategy, which focused on sectarian civilian targeting. Therefore, the contrasting suicide attack records of AQI/ISIL and the LTTE demonstrate that my proposed theoretical mechanisms correctly predict that the skill of the operatives possessed by non-state armed groups significantly determines the number of suicide attacks they carry out and which targets they choose to attack.

Patterns in Suicide Attacks During the Growth of Insurgency, 2004-2005

JTJ significantly expanded its activities in 2004, alongside the power and reach of the insurgency as a whole. A total of 73 suicide attacks struck Iraq in 2004, compared with 20 in 2003 (START 2021a). This total for Iraq alone is higher than the annual global total for every year before 2002 (START 2021a). Out of the 2004 total, 23 are attributed to JTJ/AQI (START 2021a).[21] A major event in the evolution of the group occurred in

21. While nearly half of the recorded suicide attacks in Iraq listed in the GTD from 2003-2019 are not claimed by or attributed to any group, over 97% of the claimed or attributed attacks are designated as AQI/ISIL attacks. It is therefore reasonable to assume that many if not most suicide attacks in Iraq with an unknown perpetrator were also carried out by the multiple incarnations of AQI/ISIL. For most years, the trends in known AQI/ISIL attacks track with the overall trend in the country total.

October 2004 when Zarqawi formally pledged allegiance to bin Laden and JTJ became known as AQI (Gerges 2021, 77). In response to the growing insurgent threat, the US reversed its gradual withdrawal of troops that had accompanied the declaration of the end of "major combat operations" in May 2003 (Ricks 2006, 158-159, 235). Troop levels rose from a low of 108,400-115,000 soldiers in February 2004 to 142,600-148,000 in December 2004 (Belasco 2009, 65; O'Hanlon and Livingston 2011, 13).

The city of Fallujah became a major flashpoint in the 2004 fighting. It is an industrial city of 280,000 people, located to the west of Baghdad in al-Anbar province, a region of Iraq known as the "Sunni Triangle" (Hashim 2006, xxviii, 129; West 2005, 23). The Sunni Triangle is geographically defined as the area between the cities of Ramadi in the west, Tikrit in the north, and Baghdad in the east (Hashim 2006, xxviii, 129). Over 70% of the 4,485 American soldiers killed in Iraq from 2003-2011 died in this region (Iraq Coalition Casualty Count [ICCC] 2023a).[22] Fallujah had become one of the major insurgent and AQI strongholds, and after a failed attempt to take the city in April 2004, the Americans decided to try again in November 2004. Over 10,000 American and Iraqi troops were dispatched to clear the city of an estimated 3,000 insurgents (Ricks 2006, 413; West 2005, 256). The American and Iraqi forces methodically advanced in intense, house-to-house combat, supported by tanks, artillery, bulldozers, and aircraft (West 2005, 261, 268, 287). The US military relied on overwhelming firepower, destroying any house or building from which they encountered insurgent attack (Ricks 2006, 415-417; West

22. American casualty figures by province accessed here: http://icasualties.org/iraqMap.

2005, 265, 273). The city was captured after a nine-day battle, though operations continued for weeks against the small remaining numbers of insurgents (Ricks 2006, 414; West 2005, 315).

Fallujah was wrecked during the course of the battle, with 18,000 out of its 39,000 buildings damaged or destroyed (West 2005, 315). Civilians who had fled the fighting returned to a heavily locked down city: "Iraqi males of military age were fingerprinted, given retina scans, and issued identification cards, [and] the few vehicles allowed in were rigorously searched" (317). The Second Battle of Fallujah did not prove to be the decisive victory that the US had hoped for, as the destruction of the city provided the insurgency with another rallying cry, and the use of Shia and Kurdish Iraqi Army units in the operation hardened sectarian divisions in the country (Hashim 2006, 46, 305). The insurgency continued to spread in 2005, as average monthly American troop levels increased from 132,000-135,000 in 2004 to 146,000-148,000 in 2005 (Belasco 2009, 65; O'Hanlon and Livingston 2011, 13; Ricks 2006, 427). Total insurgent attacks increased by 29% in 2005, from 26,496 attacks in 2004 to 34,131 in 2005 (Cordesman 2008, 207). This total includes 166 suicide attacks (38 attributed to AQI) in 2005, compared with 73 (23 attributed to AQI) in 2004 (START 2021a). This wave of suicide terror in a single country was unprecedented in its scale, as the total for Iraq alone was higher than the previous record worldwide total of 122 suicide attacks that occurred in 2004.

These figures show that an increased US security presence coincided with a dramatic increase in suicide attacks, consistent with my proposed theoretical mechanisms and findings that non-state armed groups increase their use of unconventional tactics

when under increased military pressure. Hafez (2007, 99-100) also finds that major American counter-insurgency operations were followed by waves of suicide attacks. He observes that after American troops adapted to the threat of suicide attacks and developed measures to better protect themselves against this tactic, insurgents increasingly shifted their attacks to target less-defended Iraqi security forces and civilians (103-105). This pattern is illustrative of the industrialized martyrdom approach to suicide terror, in which massed attacks against lower-level targets are intended to cause destabilization rather than inflict a direct, conventional military defeat.

Zarqawi drove this point home in September 2005, when he declared an "all-out war" on Shiites in a bid to stoke a sectarian civil war in the country (Gerges 2021, 85; Hafez 2007, 99). His forces did not have the capability and training to match the American troops on the conventional battlefield in Iraq, but AQI's suicide attacks on Shia civilians and holy sites played a major role in starting a Sunni-Shia civil war which undermined the US' strategic goal of establishing a pro-Western democracy in the country (Gerges 2021, 87). AQI's strategy completely differed from that of the LTTE, which used the artisan production model of suicide terror to attack strategic targets in the attempt to make the Sri Lankan military unable to carry on with its war effort. The pursuit of these contrasting strategies by AQI and the LTTE, given the difference in capability between the US military and the Sri Lankan military, illustrates my argument that the level of state military capability faced by non-state armed groups is a significant influence on how they choose to employ suicide terror.

American Retrenchment, Iraqi Civil War, and Troop Surge, 2006-2008

After parliamentary elections in December 2005, the US hoped that political stability would ensue and began withdrawing troops, from a high of 160,000 at the end of 2005 to a low of 130,000 in June 2006 (the lowest level in more than two years) (Belasco 2009, 65; O'Hanlon and Livingston 2011, 13; Ricks 2009, 31). This was in keeping with the strategy of the Bush administration and the commander of American forces in Iraq, General George Casey, who sought to withdraw troops as quickly as possible and reduce their presence among the Iraqi population (Ricks 2009, 52, 54; Woodward 2008, 4-5). This strategy entailed pulling troops out of the cities and on to large bases while turning over security duties to the Iraqi police and military (Ricks 2009, 34; Woodward 2008, 4). Rather than becoming more stable, Iraq almost became a failed state during 2006. The key turning point was AQI's February 2006 bombing of the al-Askari Mosque in Samarra, one of the holiest Shia sites (Ricks 2009, 32-33; START 2021a). This attack escalated sectarian violence to the level of a civil war, and Baghdad was wracked daily by ethnic cleansing and car bombings (Ricks 2009, 35, 129). Monthly documented civilian deaths in Iraq rose from 1,546 in January 2006 to 3,298 in July 2006 (Iraq Body Count [IBC] 2023).[23]

The US military achieved what it thought was a major victory in June 2006 when it assassinated Zarqawi via airstrike (McChrystal 2014, 222-231). His death occurred at a time of organizational transition for AQI. Zarqawi recognized that AQI's foreign leadership limited its popular appeal among Iraqi Sunnis, so in January 2006, he

23. Data on Iraqi civilian casualties accessed here: https://www.iraqbodycount.org/database/.

announced the creation of a united front with five Iraqi Islamist groups known as the Mujahideen Shura Council (though this council was dominated by AQI, essentially making it a front for its operations) (Gerges 2021, 105; MMO 2021; Weiss and Hassan 2016, 53). Zarqawi moved on an aggressive timetable to fulfill his ambition of creating an Islamic state, and in April 2006 he publicly declared that such a state would be established in Iraq in three months (McCants 2015, 14). After his death, he was succeeded as the leader of AQI by Abu Ayyub al-Masri, an Egyptian, who pushed forward with Zarqawi's plans and announced the establishment of the Islamic State of Iraq (ISI) in October 2006 (McCants 2015, 14; Weiss and Hassan 2016, 65-66). After the declaration of an Islamic state, an Iraqi known as Abu Omar al-Baghdadi was named Emir, or "Commander of the Faithful" and official leader of the organization to make it appear indigenous, while al-Masri took the title of "War Minister," but in actuality remained the true leader (Gerges 2021, 97; McCants 2015, 17; Weiss and Hassan 2016, 66).

Zarqawi's assassination and the subsequent leadership transition in his organization failed to inhibit the continued increase in Sunni insurgent activity (Tavernise and Nageeb 2006). Weekly insurgent attacks in 2006 rose by nearly 60% in the months following Zarqawi's death (United States Department of Defense 2009, 24). However, with the reduced presence of American troops, suicide attacks substantially decreased in 2006 which saw 98 attacks, and AQI/ISI appears to have substantially scaled back its activities in that year to five suicide attacks and 11 total terror attacks (START 2021a). This data is consistent with my proposed theoretical mechanism of suicide attacks being a response to increased military pressure. In a period when American military pressure was

reduced, AQI/ISI and other Sunni insurgent groups had more freedom to shift to other tactics. Additionally, AQI/ISI succeeded in its strategic goal early in 2006 in provoking a sectarian civil war in Iraq between Sunnis and Shiites. It could therefore afford to reduce its rate of attacks and save resources, as at this point the sectarian violence in Iraq took on a self-perpetuating logic with killings of civilians by Shia and Sunni death squads leading to a cycle of mutual reprisals; a dynamic that did not require much additional push from AQI/ISI's actions (Ricks 2009, 32-37, 45-47). Essentially, the downward trend in terror activity by AQI/ISI in 2006 may indicate that the group was to an extent sitting back and allowing its desired strategic outcome to play out.

By late 2006, the US government recognized that its strategy in Iraq was failing, and in November 2006, President Bush ordered an Iraq policy review (Woodward 2008, 257-258). AQI/ISI's strategy was working, and the US government and military knew that they were losing the war. A Marine Corps intelligence report on the situation in al-Anbar province concluded that the US military was "no longer capable of militarily defeating the insurgency in al-Anbar" and that AQI/ISI had become the dominant social and military force in the province (Devlin 2006, quoted in Ricks 2009, 331-335). The failure to win the "hearts and minds" of the Iraqi people was illustrated by a September 2006 opinion poll that showed that 61% of Iraqis, including 92% of Sunnis, approved of attacks on US troops (*WorldPublicOpinion.org* 2006, 8-9).[24] The bipartisan Iraq Study Group (2006, xiii, 72, 75), made up of respected former US government officials, issued a report in December 2006 calling the situation in the country "grave and deteriorating"

24. Accessed here: https://drum.lib.umd.edu/handle/1903/10157.

and recommending a withdrawal of most American troops by 2008 regardless of conditions on the ground.

The Bush administration remained determined to avoid an outright defeat in Iraq, and decided to implement a new strategy known as the "Surge" (Ricks 2009, 95-97, 119-123). In January 2007, President Bush announced that he would send more than 20,000 additional combat troops to Iraq with the primary mission of securing Baghdad Cordesman 2008, 474-475). Achieving this goal was intended to dramatically improve public security in Iraq, which would give Iraq's warring sectarian factions "breathing space" to facilitate a political accommodation among them (474-475). In February 2007, General David Petraeus replaced General Casey as the commander of US forces in Iraq (Ricks 2009, 104, 132). American troop levels rose from 135,000-138,000 that month to around 170,000 in September-November 2007, the highest overall level of the entire war (Belasco 2009, 66; O'Hanlon and Livingston 2011, 13). Along with the additional manpower, the US military put in place revamped counter-insurgency tactics. Instead of conducting patrols and operations from large bases, soldiers moved into Iraqi neighborhoods and set up combat outposts to maintain a constant security presence (Ricks 2009, 165). American soldiers also worked to harden potential terror targets by setting up checkpoints at entrances to public areas and built cement barriers to separate warring Sunni and Shiite neighborhoods and disrupt the movement of bombers and death squads (173).

The other major development during the period of the Surge was that the Americans exploited divisions within the Sunni community. While AQI/ISI had succeeded with its state destabilization strategy, it undermined its position within the

Sunni community due to its repressive governance in the territories it controlled (Gerges 2011, 108; 2021, 90-92; Weiss and Hassan 2016, 48-50). In mid-2006, a movement of Sunni tribes opposed to AQI/ISI rule in al-Anbar province known as "the Awakening" began to organize (Ricks 2009, 66-67; Weiss and Hassan 2016, 72-73). During the Surge of 2007-2008, American commanders on the ground reached out to these tribes and agreed to arm and finance them to fight ISI instead of US soldiers (Ricks 2009, 202-203; Weiss and Hassan 2016, 73, 77-79). The US military reached ceasefires with hundreds of local militias, successfully co-opting over 100,000 former insurgents (Ricks 2009, 202-203, 215). This sharp reduction in enemies enabled the US to devote less resources to "force protection" and more resources to intelligence gathering, allowing for increased targeted strikes on ISI commanders, seriously degrading the group (Ricks 2009, 193, 215; Woodward 2008, 380).

In response to its worsening military position, ISI ramped up suicide attacks in 2007, and a new record of 207 suicide attacks struck Iraq that year, 17 of which that are attributed to AQI/ISI (START 2021a). The number of attacks committed by ISI is likely significantly higher than this, as in 2007 more than 90% of suicide attacks in Iraq (187 out of 207) were not claimed by, or attributed to any group, and ISI is identified as the perpetrator for 85% of attacks that can be positively attributed to a specific group in that year (START 2021a). The infusion of the tens of thousands of Surge troops coincided with the number of suicide attacks in the country more than doubling from the previous year. ISI also scaled up its terror activities overall in 2007, with 58 total terror attacks, compared with only 11 (including 5 suicide attacks) in 2006 (START 2021a). Suicide attacks were a key component of how it sought to make up for the ground it had lost to

the extra American soldiers along with their new allies in the Awakening, which fits the pattern predicted by my theoretical mechanisms and findings.

While AQI/ISI could afford to be more passive in 2006, as the sectarian conflict dynamics it had sparked gained an independent momentum, it aggressively sought to once again destabilize Iraq in 2007 through bombings of Shia targets to counter the American military progress (Cordesman 2008, 471, 478, 487-490; Ricks 2009, 179-180, 186). AQI/ISI also targeted its suicide attacks toward Sunni communities and tribal leaders that had turned against them, including with trucks carrying chlorine gas (Cordesman 2008, 471, 512, 517, 581; Ricks 2009, 180, 187). This type of violence against communities that were once its support base is intended to have an intimidation effect and deter further defections, a dynamic that may occur when an insurgent group is losing a conflict (Kalyvas 1999). Overall suicide attacks in Iraq against soft targets rose significantly from 52 attacks in 2006 to 89 in 2007, the second-highest level seen in the country between 2003 and 2019 (START 2021a). The more restrictive security environment faced by ISI due to the increased US troop presence and extensive target hardening led to a decline in the quality of the suicide bombers it deployed, and "it began using bicycles, women, and preteen boys…eventually it would …turn to mentally handicapped or disabled girls" (Ricks 2009, 259).

The fighting between the US military and insurgents was intense throughout 2007, and that year was the deadliest in Iraq for American troops with 904 dead (ICCC 2023b[25]; Ricks 2009, 190). However, in September 2007 violence in all categories began to decline as ISI's territorial control was rolled back, and Sunni insurgents and

25. Annual American casualty figures accessed here: http://icasualties.org.

communities tactically switched their allegiance to the American side (Cordesman 2008, 478-487, 490-499, 503-527; Ricks 2009, 200-210, 237-241). ISI also failed to provoke a new sectarian civil war, due to the process of ethnic cleansing having largely been completed in mixed areas before the start of the Surge and successful appeals by political and religious leaders for calm and intercommunal solidarity (Cordesman 2008, 489-490; Ricks 2009, 200-201). Monthly civilian deaths dropped from 3,035 in January 2007 to 997 in December of that year (IBC 2023).

After the peak of the Surge in September-November 2007, US troop levels were gradually reduced, though still remained higher than the pre-surge level of 135,000-138,000 troops until early 2009 (Belasco 2009, 66; O'Hanlon and Livingston 2011, 13). The downward trend in violence continued during this time, with civilian deaths declining from 26,112 deaths in 2007, to 10,286 in 2008, and to 5,382 in 2009 (IBC 2023). American casualties declined to 314 deaths in 2008 and to 148 deaths in 2009 (ICCC 2023b). As the surge troops were withdrawn during 2008, the pattern in suicide attacks provides some evidence that ISI reduced it suicide attacks in response to a reduced US troop presence (Cordesman 2008, 472; Ricks 2009, 294; Woodward 2008, 468). The total number of suicide attacks in Iraq fell substantially from 207 in 2007 to 106 in 2008, which is consistent with the prediction that suicide attacks would decrease if military pressure was reduced (START 2021a). However, the number of suicide attacks directly attributed to AQI/ISI stayed constant, with the figure in 2008 once again being 17 attacks (START 2021a). The percentage of suicide attacks with an unknown perpetrator was somewhat lower in 2008 (83%) and a higher percentage of suicide attacks with a known perpetrator were attributed to AQI/ISI (94.4%) (START 2021a).

Based on this pattern, it appears that a greater percentage of potential ISI attacks are accounted for in 2008, so it can be indirectly inferred that it conducted significantly fewer attacks in 2008 compared with 2007.

Defeat of ISI Insurgency and First American Withdrawal, 2009-2011

In 2009, President Barack Obama took office at the end of President Bush's second term. Obama had been an opponent of the initial invasion of Iraq and a critic of the war, having run on a platform calling for the withdrawal of US combat troops (Obama 2002; 2005; 2008). Once becoming president, he pledged in February 2009 to withdraw combat troops from Iraq by August 2010 and to withdraw all American troops from the country by end of 2011, in keeping with the 2008 Status of Forces Agreement negotiated with the Iraqi government by the Bush administration (Mason 2009, 10; Obama 2009). US troop levels in Iraq dropped from 142,000 in January 2009 to 110,000 in December 2009 (O'Hanlon and Livingston 2011, 13).

The number of suicide attacks in Iraq in 2009 declined to 56, alongside a broader decrease in violence in the country (IBC 2023; ICCC 2023b; START 2021a). This decrease by 47.2% in suicide attacks between 2008 and 2009 is consistent with the predicted group behavior when military pressure is reduced. Out of those attacks, 35 had an unknown perpetrator (62.5%), and of those with a known perpetrator, 95.2% (20 out of 21 attacks) are attributed to ISI (START 2021a). This figure shows a continuation in the trend of a higher percentage of ISI suicide attacks being positively identified. Even though the number of recorded ISI attacks increased from 17 in 2008 to 20 in 2009, a greater percentage of its potential attacks are accounted for in 2009 compared with 2008.

Given that the overall total of suicide attacks in Iraq dropped nearly by half from 2008-2009, and ISI is by far the most prolific employer of suicide terror among insurgent groups in Iraq, it is likely that the actual number of its attacks declined from 2008-2009. This pattern would be consistent with the substantial decline in recorded ISI suicide attacks that would occur alongside further American troop reductions in 2010-2011 (O'Hanlon and Livingston 2011, 13; START 2021a).

In 2010, US troop levels in Iraq fell from 110,000 to 48,000 (O'Hanlon and Livingston 2011, 13). This stage of the US withdrawal coincided with another significant decline in violence in Iraq, with civilian deaths falling from 5,382 in 2009 to 4,167 in 2010 and American casualties falling from 148 deaths in 2009 to 62 in 2010 (IBC 2023; ICCC 2023b). By this point in the conflict, ISI had been defeated as a territorial entity (Gordon and Trainor 2012, 620; McCants 2015, 45). While it once controlled strategically crucial "belts" surrounding Baghdad, as well as most of al-Anbar province, its remaining cells had been forced underground into northern Iraqi cities like Mosul and Tikrit and the western deserts of al-Anbar (Gordon and Trainor 2012, 620; McCants 2015, 42; Weiss and Hassan 2016, 68-70, 75, 78, 110). Improved American intelligence gathering and special operations, as well as the development of the Iraqi military's own special forces, resulted in the killing of most of ISI's senior leadership, including its top leaders Abu Ayyub al-Masri and Abu Omar al-Baghdadi in a April 2010 raid on their safe house near Tikrit (Arango 2010; Gordon and Trainor 2012, 620-623; McCants 2015, 45; Weiss and Hasan 2016, 79, 110-111).

Competing dynamics during this stage in the conflict influenced the patterns in suicide attacks in Iraq. The American military presence was significantly reduced, by

over 56%, which would represent a reduction on the amount of pressure on ISI (O'Hanlon and Livingston 2011, 13). At the same time, the US and Iraqi militaries became increasingly adept at targeted strikes, putting severe pressure on the ISI leadership and hampering their ability to command operations. In 2010, there were 50 suicide attacks in Iraq, 12 of which are attributed to ISI, which is in line with my predictions and findings that suicide attacks would decline in response to lower American troop levels (START 2021a). As American troops were steadily withdrawn, the incentive of insurgent groups in Iraq to engage in suicide terror would be reduced, as they would be facing fewer soldiers of a top-tier military power and be at less of an asymmetrical disadvantage. Another factor at play is that the American withdrawal may also have also incentivized ISI's remaining cadres to reduce their activities and bide their time until all US troops had left Iraq (Weiss and Hassan 2016, 82, 87). However, despite the reduced US military presence, targeted pressure on ISI was increased and 34 out of its 42 senior leaders were killed or captured (McCants 2015, 45; Weiss and Hassan 2016, 79). Though my findings demonstrate that increased military pressure is associated with an increase in suicide terror, there must exist a level of pressure at which a group is so degraded that its ability to conduct any operations is significantly reduced, i.e., in the extreme case that a group is physically destroyed in its entirety. Given ISI's loss of territory and leadership, the downward trend in its suicide attacks in 2010, which would continue in 2011, can also be attributed to its loss of operational capacity.

The American withdrawal from Iraq preceded on schedule, and President Obama announced the end of the US combat mission in August 2010 and a transition to a support mission, as well as reiterating his commitment to a withdrawal of all US troops by the

end of 2011 (Obama 2010). The last American troops departed Iraq on December 18, 2011 (Gordon and Trainor 2012, 671). The final year of the withdrawal was the least violent year in Iraq since the 2003 invasion (IBC 2023; ICCC 2023b). ISI terror attacks continued to decline in 2011, with five suicide attacks and 33 non-suicide attacks attributed to the group (START 2021a). All five of its suicide attacks that year were against Iraqi government targets in northern Iraq (START 2021a). In addition, the overall level of suicide attacks against soft targets in Iraq in 2011 (17 total attacks) was the lowest since 2004 (START 2021a). This attack pattern is in line with what my proposed theoretical mechanisms predict, given that the withdrawal of US troops would leave Iraqi government targets less defended, enabling insurgents to shift resources towards attacking these targets and away from attacking civilian targets.

Political Instability, Regional Turmoil, and New Sunni Insurgency, 2011-2013

The fragile relative stability that prevailed in Iraq as the US departed did not last long, due to a persistent sectarian deadlock in Iraqi domestic politics and regional turmoil caused by the Arab Spring uprisings that began in late 2010, which provided an opening for ISI to regroup and reorganize. In the group's comeback, it would once again make heavy use of the suicide terror tactic that had helped it achieve successes in the past. The first factor that enabled ISI's return to prominence was the mass amnesty of prisoners, including jihadists, by the Iraqi government in 2009 as it began to take over security duties from the Americans (Weiss and Hassan 2016, 86-88). The absence of American

troops also removed the primary buffer between antagonistic Shia and Sunni forces, leading to a worsening of sectarian tensions (Gerges 2021, 114-115; Gordon and Trainor 2012, 675-676; Weiss and Hassan 2016, 86, 88-89, 94).

Despite the security gains achieved by the Surge, Iraq's major sectarian groupings failed to reach a political accommodation (Gerges 2021, 109-126; Gordon and Trainor 2012, 505-514, 542-547, 557, 560-575, 590-603, 609-620, 625-650, 674-676; Ricks 2009, 296; Weiss and Hassan 2016, 88-94). The Awakening militias that had fought and defeated AQI/ISI were supposed to be integrated into the official Iraqi security forces, but only a fraction of their members received jobs and many were instead arrested by the Iraqi government for their prior insurgent activities (Gerges 2021, 16, 109-110, 114-115, 123; Gordon and Trainor 2012, 590-593; Ricks 2009, 311; Weiss and Hassan 2016, 81, 88-89, 93). The Iraqi government was dominated by Shia parties linked to Iran, and it was suspicious of assertive Sunni political movements, as it tended to view them as Baathist (Gerges 2021, 114-115, 118, 122; Gordon and Trainor 2012, 604, 609-610; Weiss and Hassan 2016, 90-91).

The allegiances of Sunni tribes in Iraq have historically been fluid and transactional. Many of them had benefited from Baathist rule, so they became a key part of the support base for the insurgency against the new Shia-led government that had been installed by the Americans in 2003 (Hafez 2007, 43-45; Weiss and Hassan 2016, 26, 47, 186). The Sunni tribes initially worked with AQI/ISI as allies in the broader insurgency, but switched to American/Iraqi government side in response to AQI/ISI attempting to dominate their communities (Gerges 2021, 68; Weiss and Hassan 2016, 26, 48). But this change did not portend a permanent ideological shift, and when their allegiance to the

Iraqi government was not rewarded, ISI was able to rebuild ties with them (Gerges 2021, 123-130; Weiss and Hassan 2016, 81, 89, 192-193). After the deaths of most of its senior leadership by 2010, ISI went through a process of what Gerges (2021, 148, 151-153) terms "Iraqization," as the group transitioned into an Iraqi-led organization. Abu Bakr al-Baghdadi became the group's new Emir in May 2010, and he was able to rebuild its popular support in the Sunni community and enhance its military capability through his ties and connections to both the tribes and Baathists who had served in the military and been former officials in the security forces (Gerges 2021, 102, 134-164; McCants 2015, 45, 73, 78-79; Weiss and Hassan 2016, 115-122).

ISI also benefitted from the Arab Spring uprisings. The wave of mass protests and revolutions that began to sweep across the Middle East and North Africa in late 2010 reached Iraq and destabilized neighboring Syria. Beginning in 2011, tens of thousands of Iraqi citizens took to the streets to protest government corruption, authoritarianism and poor economic conditions, prompting deadly crackdowns by the security forces that further eroded the government's popular legitimacy (Gerges 2021, 124-131, 170; Gordon and Trainor 2012, 675; Weiss and Hassan 2016, 94-96, 192, 250). ISI was also able to take advantage of the 2011 uprising in Syria, which started as a movement of peaceful anti-government protests, but escalated into a civil war due to violent government repression of the protests.

Syria had once been the primary safe haven and source of supply routes for Sunni insurgents, both Baathist and jihadist, and the main entry point for foreign fighters into Iraq, but by 2010 these routes had mostly been shut down by the Syrian government and US military (Felter and Fishman 2007; Gerges 2021, 140, 152; Gordon and Trainor 2012,

22-23, 56-57, 97, 165, 230, 357, 449, 461, 552, 577, 606; McCants 2015, 85; Weiss and Hassan 2016, 26-27, 47, 87, 98, 104-107). The destabilization of Syria due to civil war opened these routes back up and enabled the reconnection between insurgent networks on both sides of the border (Gerges 2021, 123; Weiss and Hassan 2016, 191-192). The Syrian government released hundreds of jihadists and extreme Islamists from prison and also assisted the operations of jihadist formations within Syria through both active and passive means as part of its strategy to divide and discredit the opposition, further bolstering ISI's manpower and arsenal (Gerges 2021, 181, 183; McCants 2015, 85, 125; Weiss and Hassan 2016, 136-140, 157-159). The conflict in Syria, like that in Iraq, also attracted thousands of foreign jihadists, creating another large pool of potential recruits for ISI (McCants 2015, 100-101, 111; Weiss and Hassan 2016, 128-129).

ISI's 2012 attack data shows that it was able to quickly reconstitute its combat effectiveness in the first year after the US withdrawal. It conducted 28 recorded suicide attacks (compared with 5 in 2011) and 304 total terror attacks (compared with 33 in 2011), with the latter figure making 2012 its most active year up to that point (START 2021a). Civilian deaths in the conflict, which had been in significant decline since the Surge, increased from 4,162 in 2011 to 4,622 in 2012, an 11.1% increase (IBC 2023). Despite no longer being at the same asymmetrical disadvantage on the battlefield with American troops absent, ISI once again continued to heavily use suicide terror, demonstrating favorability towards tactics that it had experience with and that had brought it success in the past. This tactical behavior is consistent with my argument and findings that groups that use suicide terror early in their existence continue to carry out large numbers of suicide attacks, due to reliance on established organizational practices

and procedures. In July 2012, al-Baghdadi announced the start of a military campaign that he dubbed "Breaking the Walls" that focused on breaking detained ISI operatives out of prison (Lewis 2013a, 7-8, 10). Suicide attacks were a major component of this year-long campaign, which succeeded in freeing hundreds of operatives (Lewis 2013a; 2013b). These jailbreaks demonstrated ISI's enhanced capability for attacking high-level government targets without the extra security US troops had once provided, as predicted by my argument that when military pressure on non-state armed groups is reduced they are able to shift resources towards attacking harder state targets.

The Rise of the ISIL Caliphate, 2013-2014

ISI continued to expand its reach in 2013 alongside the escalation of the Sunni civil uprising against the government (Gerges 2021, 127-129; Weiss and Hassan 2016, 95-96, 192-193, 250). In April 2013, al-Baghdadi claimed territory in Syria and changed the name of the organization to ISIL (Gerges 2021, 191-192; McCants 2015, 90; Weiss and Hassan 2016, 145-146). Suicide terror in Iraq that year reached then-unprecedented levels, with insurgents carrying out 273 suicide attacks, of which 66 were attributed to ISI/ISIL (START 2021a). By July 2013, violence in Iraq had returned to 2008 levels, with over one thousand civilians dying each month (Gerges 2021, 127; IBC 2023). This included a dramatic increase in suicide attacks on soft targets, 75 in total, the most in Iraq since 2007, of which 28 were attributed to ISI/ISIL (START 2021a). Suicide attacks on soft targets by ISI/ISIL in 2013 account for 42.4% of its attacks for that year (START 2021a).

This attack record demonstrates that ISI/ISIL had returned to a state destabilization strategy that it had previously employed, even though with US troops gone its main opponent was now the far weaker Iraqi military (Lewis 2013a, 16, 31; 2013b, 12-19, 28; Weiss and Hassan 2016, 96). Facing military asymmetry is one of the major factors influencing the use of suicide terror and suicide attacks against civilian targets, but as I have previously argued, organizations are also prone to continue to use their past practices and procedures. Given ISI/ISIL's established use of the industrialized martyrdom model of suicide terror and that it had successfully used this model in the recent past to destabilize Iraq, my argument predicts that the group would once again use it in some form even in changed military circumstances. This pattern in tactics and strategy can also be seen in the case of the Tamil Tigers, which attempted to keep adhering to the artisan production model of suicide terror that it had employed for decades and kept attacking high-level targets until near the end of the Sri Lankan Civil War, when the exhaustion of its military resources made it unable to continue with this approach.

In 2014, ISIL conducted major offensives, securing control of al-Anbar province and in June of that year conquering Mosul, Iraq's second largest city (Gerges 2021, 131, 198; Jones et al. 2017, 81-82; McCants 2015, 1, 121; Weiss and Hassan 2016, 95-96, 120, 229, 238-239, 250). ISIL's attack on Mosul comprised 800-1,500 fighters, ostensibly outnumbered 15 to one by the Iraqi government forces defending the city, but the Iraqi military collapsed in the face of the frontal assault (*Al Jazeera* 2014; Chulov, Hawramy, and Ackerman 2014; *The Economist* 2014). After this victory, ISIL declared the establishment of the Islamic State (IS) Caliphate with al-Baghdadi as Caliph (Roggio

2014; Rubin 2014). The change from ISIL to IS would be the group's final name change. The rapid spread of ISIL/IS's territorial control and the seeming disappearance of much of Iraq's military posed a dire threat to the viability of the Iraqi state, similarly to the sectarian civil war of 2006-2007 that nearly led to the break-up of the country (Jones et al. 2017, 42, 81-82; Nordland 2015; Sly 2015; Wasser et al. 2021, 16, 19, 76; Weiss and Hassan 2016, 239). The renewed threat to the Iraqi state's territorial integrity and ISIL/IS's extreme human rights abuses, including a campaign of genocide against the Yazidi minority population, prompted a new intervention in Iraq by the US and its allies, which included thousands of airstrikes and the deployment of thousands of soldiers (Cooper and Shear 2014; Peters 2021, 13-14; United Nations Human Rights Council 2016; Wasser et al. 2021, 27, 52-53).

The Fall of the Caliphate and the Apogee of Industrialized Martyrdom, 2014-2017

The new American intervention and ISIL/IS's transition into a more professionalized military force in 2014 both shaped its attack pattern in that year (Dodwell, Milton, and Rassler 2016; Evans, Milton, and Young 2021, 511, 521-522; Kaaman 2017; 2019, 3-4, 6). President Obama deployed 3,000 troops to Iraq in 2014 to train and assist the Iraqi military, and the US-led coalition carried out 2,003 airstrikes on ISIL/IS positions that year (Cooper and Shear 2014; United States Air Forces Central [AFCENT] 2017).[26] In the face of renewed pressure by technologically-advanced military forces, ISIL/IS upped its use of suicide terror, with 124 suicide attacks in 2014,

26. Data on US-led coalition airstrikes between 2014 and 2017 accessed here: https://www.afcent.af.mil/Portals/82/Documents/Airpower%20summary/Airpower%20Summary%20-%20December%202017_Released.pdf?ver=2018-01-15-023307-640.

nearly double the 66 attacks in 2013, consistent with what my argument predicts (START 2021a). On the other hand, it enhanced its own military capacity and effectiveness, which is shown in its increased success in attacking hard targets, with 75% of its suicide attacks in 2014 being against hard targets, compared with 56.1% in 2013 (Dodwell, Milton, and Rassler 2016; Kaaman 2017; 2019, 3-4, 6; START 2021a).

IS reached the greatest extent of its territorial control in 2015, which was close in size to that of the United Kingdom (Gerges 2021, 217; Kaczkowski et al. 2021, 7; Wasser et al. 2021, 125). Though it was able to make advances, it came under increased military pressure, with US troop levels in Iraq increasing to 3,550 troops in 2015, and the coalition ramped up its air campaign to 9,912 airstrikes that year (AFCENT 2017; Peters 2021, 13). IS could not effectively counter airpower due to the lack of its own air forces or anti-air assets that could pose a significant threat to modern aircraft (Wasser et al. 2021, 10, 29, 121, 291, 298). In response to the air campaign, IS continued to dramatically escalate its use of suicide terror, to 265 suicide attacks in 2015 (START 2021a). It also became more reliant on suicide terror, with the percent of its suicide attacks out of its total recorded terror attacks increasing from 11.3% in 2014 to 26.6% in 2015 (START 2021a).

These attacks trends continued in 2016, as IS lost significant territories and thousands of fighters as it began to be overwhelmed by the US-led coalition's air campaign and an increasingly effective ground campaign by Kurdish forces and Iranian-backed militias (Jones et al. 2017, xii, 20, 83-85; Kaczkowski et al. 2021, 7; Starr 2016; Wasser et al. 2021, 79-80, 167-168, 250-251). The number of American troops in Iraq in 2016 increased to 4,087, and the number of coalition airstrikes increased to 11,825

(AFCENT 2017; Peters 2021, 14). In the face of this mounting pressure and the highest level of airstrikes reached during the coalition's campaign, IS increasingly turned to industrialized martyrdom to make up for its growing conventional disadvantage, behavior that is consistent with my quantitative results (AFCENT 2017). IS carried out the largest wave of suicide terror in history in 2016, with 367 suicide attacks, 111 of which were against civilian targets (START 2021a). There were 454 total suicide attacks in Iraq in 2016, the highest annual recorded total for any country, including 127 total suicide attacks against civilian targets (START 2021a). IS's record of suicide attacks demonstrates that as predicted by my proposed theoretical mechanisms, it shifted more resources towards suicide attacks and attacks against civilians as its military position worsened, with the percent of its suicide attacks against soft targets increasing from 14.7% in 2015 to 30.2% in 2016 and its percent suicide attacks out of total terror attacks increasing from 26.6% in 2015 to 30% in 2016 (START 2021a). This behavioral pattern was also seen in the LTTE case, as that group increased its reliance on suicide terror and suicide attacks against civilians as it faced defeat in the closing years of the Sri Lankan Civil War.

IS lost most of its remaining territories in 2017 along with tens of thousands of its fighters (Kaczkowski et al. 2021, 7; Strack 2017; Wasser et al. 2021, 106-107, 115; Woody 2017). Mosul would be re-taken by Iraqi military forces in July 2017 and the Iraqi government declared in December 2017 that IS had been defeated (Chmaytelli and Aboulenein 2017; Wasser et al. 2021, 95, 101). The number of US troops in Iraq increased to 5,262 and the coalition carried out 9,944 airstrikes in 2017 (AFCENT 2017;

Peters 2021, 14). The number of airstrikes in 2017 was lower than the high of 11,825 in 2016, but similar to the figure of 9,912 in 2015 (AFCENT 2017).

While IS lost most of its military capabilities and resources during coalition operations between 2015-2017, it was still able to maintain a high level of activity throughout 2017 and remained committed to the use of industrialized martyrdom in the attempt to turn around its desperate situation (START 2021a; Wasser et al. 2021, 202-250). IS carried out 264 suicide attacks in 2017, nearly equal to its 2015 total, and 66 of its 2017 attacks were against soft targets, its second-highest annual total for attacks on that target category (START 2021a). The degradation in IS's capabilities from 2015, when it was at the height of its power, can be shown by comparing its 2017 suicide attack record to that of 2015. While in 2015, 78.5% of IS suicide attacks were against hard targets and 14.7% of them were against soft targets, in 2017 its suicide attacks on hard targets declined to 65.2% and those on soft targets increased to 25% (START 2021a). The threat that IS posed to both regional and global security brought it into conflict with a coalition of 85 countries and international organizations, creating an overwhelming array of forces against it (Global Coalition 2023a). This drastic power imbalance accounts for IS becoming by far the most prolific employer of industrialized martyrdom. Given that IS was fighting against so many technologically-advanced militaries at the same time, its tactical behavior is consistent with my argument and findings that increased state military pressure drives increased group use of and reliance on suicide terror, as well as increased suicide attacks against soft targets.

This chapter analyzed AQI/ISIL's suicide terror campaign to provide an illustration of the industrialized martyrdom model of suicide terror and the group

developmental factors and group-state conflict interactions that influence the adoption of this model by non-state armed groups. As a jihadi Salafi group, AQI/ISIL was ideologically predisposed to adopt suicide terror and civilian targeting as tactics, but the extreme scale and indiscriminate nature of its use of suicide attacks was due to its lack of group experience and preparation and the specific conflict conditions it faced in Iraq. AQI/ISIL entered the Iraq conflict as a small, inexperienced group that was foreign to the country and was fighting at a highly asymmetrical disadvantage against the American occupation force. These group and conflict circumstances contrast with those of the Tamil Tigers, which had gained years of experience and training before it began its full-scale rebellion against the Sri Lankan state, which initially possessed a small and weak military. Therefore, AQI/ISIL's initial limitations in military power and experience, initial lack of connections within Iraq, and its significant power disadvantage vis-à-vis the US military incentivized it to adopt industrialized martyrdom, i.e., the mass use of suicide attacks against soft targets, as an asymmetrical force multiplier to carve itself out a leadership role in the Sunni insurgency and disrupt American plans in Iraq. The record of AQI/ISIL's suicide attacks provides further supporting evidence for my arguments that younger groups and groups facing highly-capable state militaries are more likely to make increased use of suicide terror and suicide attacks against soft targets.

Industrialized martyrdom was an important part of AQI/ISIL's state destabilization strategy, which entailed provoking a Sunni-Shia civil war in Iraq. AQI/ISIL's use of industrialized martyrdom is consistent with my argument and quantitative findings that newly-established groups and groups facing a large conventional disadvantage against their state military opponent are likely to carry out an

increased number of suicide attacks and an increased proportion of suicide attacks against soft targets. In addition, AQI/ISIL persisted in the widespread use of suicide attacks against civilians even as it gained substantial military power, territory, and resources, demonstrating reliance on past organizational practices and procedures established in its early formative years. This organizational behavior is consistent with my argument and findings that groups that adopt suicide terror early in their history are more likely to persist in using the tactic at a large scale.

This chapter also describes how the dynamic conflict interactions between AQI/ISIL and the US military and US-led international coalition impacted the scale and targeting of the group's suicide attacks. AQI/ISIL responded to military offensives against it, such as the US troop surge of 2007 and the US-led coalition air campaign of 2014-2017, by carrying out waves of suicide terror and suicide attacks against civilians that were unprecedented in scale. Industrialized martyrdom was one of its primary chosen methods to attempt to make up for its large conventional disadvantage against its technologically-advanced state military opponents. Conversely, when military pressure on the group was reduced, such as the period during the first US withdrawal from Iraq, its use of suicide terror was reduced as it had less need of an unconventional force-multiplier. These changes in suicide attack patterns in response to changes in levels of state military pressure were also seen in the case of the LTTE, so this similarity in pattern across the two cases further supports my argument and findings that increases in state military capability significantly drive increases in the use of suicide terror and suicide attacks against civilian targets by non-state armed groups. The cases covered over these last two chapters provide detailed examples of two ideal-types of suicide terror that non-

state armed groups may employ, the artisan production model and the industrialized martyrdom model. These two case study analyses have also shown in detail the mechanisms that underlie my central argument and findings, that group developmental factors and the level of state military capability significantly impact the manner and scale at which non-state armed groups employ suicide terror.

CHAPTER 7

CONCLUSION

Review of Contribution and Findings

The contribution of this study is that it provides a novel explanation for the under-explored question of why non-state armed groups differ in how they use the tactic of suicide terror. To address this question, I proposed that group developmental processes and state military capability significantly impact how much groups engage in suicide terror, what type of targets they focus on attacking, and how much groups rely on suicide terror as part of their repertoire of terror tactics. My first set of predictions was that established groups and late adopters of suicide terror will carry out fewer suicide attacks and focus more on attacking hard targets and less on soft targets. I theorized that less-developed groups lack capacity and experience in conducting guerrilla warfare and insurgency and have limited ability to train or recruit skilled fighters, reducing the effectiveness of their individual attacks and their ability to plan and successfully execute complex operations. Groups with these limitations are more likely to see the benefit of increasing their use of a low-cost, but high-damage tactic like suicide terror and focus their attention on vulnerable civilian targets that they can attack with a higher-probability of success. Groups that adopt suicide terror early in the history of their activities have an increased likelihood of continuing to use it with high frequency later on in their organizational lives, as tactics employed early on in their process of group development become part of their regular practice and procedure, which is difficult to change in an established organization.

My second set of predictions was that groups fighting strong state militaries will increase their use of suicide attacks, decrease their proportion of attacks on hard targets, increase their proportion of attacks on soft targets, and become more reliant on suicide terror as a tactic. I theorized that groups at a large conventional military disadvantage with the state they are fighting against have less ability to attack strategic targets, and that when they come under increased state military pressure they are less able to train skilled fighters and effectively conduct operations. When groups incur battlefield setbacks and increased losses, they are more likely increase their use of smaller-scale operations, and shift resources into attacking non-strategic targets. They are also more likely to increase their reliance on suicide terror as they need an unconventional force-multiplier to compensate for their asymmetrical military disadvantage.

In testing my specific hypotheses, I used group age as a proxy for a group's level of organizational development and troops per 1,000 population as a proxy for state military capability. The first set of hypotheses was that older groups and late adopters of suicide terror will carry out fewer suicide attacks and that older groups will carry out a higher proportion of attacks against hard targets and a lower proportion of attacks against soft targets. The second set of hypotheses was that increases in state military personnel lead groups to increase their use of suicide attacks, decrease the proportion of their suicide attacks against hard targets, increase the proportion of their suicide attacks against soft targets, and increase the proportion of suicide attacks out of their total terror attacks. I conducted statistical analyses of 140 groups from 1998-2012. I find that older groups and late adopters of suicide terror carry out fewer suicide attacks and that groups respond to increases in state military personnel by conducting more suicide attacks overall, a

higher proportion of suicide attacks against soft targets, a lower proportion against hard targets, and a higher proportion of suicide attacks out of their total terror attacks. Therefore, my findings contribute to answering the question of why non-state armed groups differ in their use of suicide terror by demonstrating that the manner and scale that groups engage in suicide attacks is significantly impacted by group age and state troop levels.

This question is further answered in this dissertation by the case study analysis of the Tamil Tigers and AQI/ISIL. The case of the Tigers shows how well-established groups following the traditional guerrilla warfare model developed by Mao and Guevara can be more selective in their use of suicide terror and focus on strategic targets, as they have sufficient numbers of high-skilled operatives and expertise in insurgency. The case of AQI/ISIL shows how when newly-established groups enter a conflict, they have an incentive to be indiscriminate in their use of suicide terror and focus on civilian targets, as they lack sufficient numbers of high-skilled operatives and expertise in insurgency. These two cases also show how group use of suicide terror is impacted by increases in state military and security pressure. Both the LTTE and AQI/ISIL responded to increased pressure by carrying out more suicide attacks, shifting focus from hard to soft targets, and by becoming more reliant on suicide terror. They shifted their overall suicide attack patterns based on their position on the battlefield, dynamically responding to advances or setbacks.

The LTTE and AQI/ISIL represent what I termed the artisan production and industrialized martyrdom models of suicide terror, respectively. The LTTE was experienced in guerrilla warfare and had developed the highly-skilled Black Tiger corps,

which enabled it to adopt the artisan production model. This approach was demonstrated in its attacks on Sri Lanka's main air base and in its assassinations of a Sri Lankan president and a former prime minister of India. Its suicide attack record shows that over 80% of its attacks were against hard targets (START 2021a). Overall, it used suicide terror in a limited and selective manner, with less than 7% of its terror attacks being suicide attacks (START 2021a).

AQI/ISIL entered the Iraq conflict with few members and little experience, yet it intended to fight the high-capacity US military, which incentivized it to adopt industrialized martyrdom as an effective and efficient means of compensating for the vast conventional asymmetry in power it faced. Suicide terror in Iraq epitomized industrialized martyrdom, with 37% of suicide attacks from 1981-2019 taking place there since the 2003 US invasion, resulting in the deaths of over 26,000 people (START 2021a). AQI/ISIL is responsible for approximately 22% suicide attacks from 1981-2019, which includes 346 suicide attacks on soft targets in Iraq (START 2021a). In contrast with the Tamil Tigers, 21% of AQI/ISIL's terror attacks are suicide attacks, demonstrating far more reliance on suicide terror (START 2021a). Overall, both of these cases show how processes of group development and state military capability significantly influence how groups use suicide terror, in line with my theoretical propositions and my findings in the large-N quantitative analyses. These cases also provide evidence for my theoretical propositions that groups may engage in a spectrum of possible approaches to suicide terror based on their level of organizational development and the level of military pressure placed upon them, and that there are two distinct models of suicide terror at opposite ends of this spectrum.

Limitations of Study and Unsupported Hypotheses

My hypotheses on the impact of group age on group targeting decisions with suicide attacks were not supported in my quantitative analysis. I had predicted that older groups would carry out a higher proportion of attacks against hard targets and a lower proportion of attacks against soft targets, and in both cases the coefficient was wrongly-signed and not close to statistical significance across all model specifications. These null results underlay the limitations with using group age to proxy for group developmental processes, and the need to develop alternative variables for testing how these processes impact group targeting decisions. An improved proxy should also account for more specific organizational characteristics of groups, such as their organizational culture or structure that would enable them to survive long term or to succeed in achieving tactical and strategic goals. I could also improve on the proxy I chose for state military capability, which was *Troops Per 1,000 Population*. Given the widely-varying differences between state militaries in the quality of their regular troops, perhaps a better measurement of a state's capabilities in counter-terror and counter-insurgency would be the size of their special forces. Using such a variable would require gathering data on the size of state military units that have received specialized training in counter-terror and counter-insurgency.

My quantitative analyses also do not really capture the dynamic interactions between groups and states in conflict, especially a possible interdependence between suicide attacks and state troop levels. While the focus of my study is the response of groups to increased state troop levels, an effect may work in the opposite causal direction, with states seeking to build up their troop levels in response to increased suicide attacks.

One potential method for testing the interdependence between suicide attacks and state troop levels is to conduct a quantitative analysis with the lagged count of group suicide attacks as an independent variable and the number of state troops as the dependent variable. A second method is to conduct an analysis that makes the lagged number of state troops an independent variable and the count of group suicide attacks the dependent variable. These tests could capture a degree of the dynamic responses of states and groups to each other over each successive year in their conflicts.

The final limitation of my study that I wish to address is the issue in the data that so many suicide attacks have an unknown perpetrator. This includes 2,459 out of 7,269 (33.8%) suicide attacks in the GTD from 1981-2019, and is even more so for the case of Iraq, with 1,347 out of 2,701 (49.87%) attacks from 2003-2019 having an unknown perpetrator. Given that my unit of analysis is group-years, the scale of the number of unattributed attacks potentially leads my results to be understated, given the lower recorded values of the dependent variable, especially for the more recently established jihadist groups. With respect to my case study analysis, many likely AQI/ISIL attacks are not recorded in the data, which, if included, would likely show that the group's attack patterns would better conform with my theoretical predictions for the years where they were out of sync.

Policy Implications of Findings

Several potential implications for state counter-terror and counter-insurgency policy can be derived from this study's findings and analysis. Governments engaged in counter-terror and counter-insurgency operations should expect and prepare for a

potential increase in suicide attacks by non-state armed groups to occur as the military and security pressure on them is increased. Suicide terror is an effective and deadly "weapon of the weak" that is also an efficient use of resources for groups to use, therefore, the weaker the position a group is in, the more a government should expect and prepare for it to increase its use of suicide attacks and to target civilians as it loses its capability to attack military targets. Even if a group is on the verge of defeat, the government should work to harden potential civilian targets as much as possible, because it is at that specific moment of desperation that groups are more likely to attempt to turn to industrialized martyrdom-style suicide attacks.

In the case of the LTTE, when its remaining territories were about to be overrun by the Sri Lankan military, it began dispatching suicide bombers against Tamil IDPs attempting to flee to government lines (CPOST 2021; START 2021a). In the case of AQI/ISIL, as it was overwhelmed by the combined forces of the international coalition and its Iraqi partners in 2016-2017, it responded with the largest wave of suicide terror in history, with 631 suicide total suicide attacks in Iraq in this period, including 177 against soft targets (START 2021a). In both of these cases, state military offensives resulted in an increase, not a decrease in suicide terror. It was only when these groups were completely defeated that suicide terror abated. These cases concretely demonstrate that counter-terror and counter-insurgency operations are not likely to end or reduce suicide terror in the short term and may in fact increase its use. Suicide terror abates with the end of a conflict, either through a military victory or negotiated settlement.

Areas for Future Research

There are several areas in which the work presented in this dissertation can be further developed for future studies on both suicide and non-suicide terror, as well as counter-terror and counter-insurgency. The first area is taking the theoretical concepts I used from labor economics to develop my proposed theoretical mechanisms and further develop them into a testable labor economics model of suicide terror. This would require increased engagement with both the labor economics and organizational sociology literatures. One way to approach this issue is to construct an expected utility function for non-state armed groups in carrying out suicide attacks, which includes variables that represent the potential costs and benefits of an attack. Potential benefits would include factors such as the expected damage caused by the suicide attack and the value of the target in terms of its strategic importance. Potential costs would include factors such as expenses for training operatives, funding, and planning an attack, as well as expected group casualties from the operation. These factors would vary based on the amount of training the operative(s) sent to conduct the attack received, the hardness of the target, and the strength of the state military and security forces. The expected utility function would need to be tested from a more limited number of cases where data was available on how much training groups provide their operatives with and the estimated financial costs to groups in training their operatives and planning and conducting suicide attacks.

In addition, I could apply the same statistical tests that I conducted in this dissertation to non-suicide terror attacks to see if suicide terror is a truly distinct form of terror, or if both suicide and non-suicide attacks follow similar dynamics. This would involve using count of total group terror attacks (both suicide and non-suicide attacks) as

the dependent variable instead of count of suicide attacks alone, and comparing the results. Similarity in findings between the results would be an indication that groups follow a similar pattern in how they use both suicide and non-suicide attacks. If the use of all terror attacks does indeed follow a similar dynamic, the potential labor economics model of suicide terror I summarized above could then be expanded to become a general labor economics model of terror.

The next main area for future research is to expand on the case studies by analyzing them at the sub-national level to measure the impact of increased troops on the specific areas where counter-terror and counter-insurgency operations take place. An increase in state troops does not mean a uniform increase in boots on the ground all over a country. Usually offensive operations take place in key areas. Therefore, by focusing on the sub-national level where troops are actually deployed, we can gain more insight into how groups react tactically in their use of suicide attacks. This research design could include analyses of specific state military offensives into insurgent-held territory.

Potential cases to use include Sri Lankan government offensives on Jaffna in 1995 and on the remaining LTTE-held territory in northern Sri Lanka in 2009, and US-led offensives in Iraq against AQI/Islamic State of Iraq (ISI) during the 2007 troop surge in Baghdad and the surrounding belts. These offensives took place in geographically-defined areas and have clear starting and ending dates. This would allow for a comparison of the manner and scale that the groups use suicide attacks for set periods of time before, during, and after the offensives. I would investigate whether groups shift their resources in response to increased state military pressure in these geographic areas by switching from attacking hard targets to soft targets or by switching from non-suicide

to suicide attacks. I would also address the demographic information of the provinces where the offensives took place, including factors like total population, population density, and ethnic/sectarian makeup. This analysis would further develop knowledge of the dynamic conflict interactions between states and non-state armed groups.

The final main area for future studies that I wish to discuss stems from the significant impact of state airpower on group use of suicide terror that I observed in the AQI/ISIL case study. AQI/ISIL significantly increased its use of suicide attacks, suicide attacks on civilians, and reliance on suicide terror in response to increases in US-led coalition airstrikes. These associations between airpower and a group altering the manner and scale that it engages in suicide terror indicate the potential utility of airpower as an independent variable that measures state military pressure on groups. The US has heavily relied on airpower in most of the conflicts that it has been involved in during the War on Terror-era. These conflicts certainly include Afghanistan and Iraq, but also conflicts in which the US has limited boots on the ground, including those in Pakistan, Yemen, and Somalia. Those latter three conflicts have also seen the extensive use of drone strikes by the US military and intelligence agencies. Data could be collected on American air or drone strikes around the world for use in quantitative analyses testing how the amount of airpower used by a state in conflict with a non-state armed group impacts how groups use suicide terror. Control variables in these analyses would include measurements of key group, conflict, and country characteristics. This type of study would shed light on the impact of one of the most prominent and controversial counter-terror and counter-insurgency tactics on the tactical and strategic behavior of groups.

REFERENCES

Abrahms, Max. 2014. “Dying for Nothing? The Political Ineffectiveness of Suicide Terrorism.” In *Debating Terrorism and Counterterrorism: Conflicting Perspectives on Causes, Contexts, and Responses*, 2nd edition, ed. Stuart Gottlieb, 152-171. Thousand Oaks, CA: CQ Press.

Acosta, Benjamin. 2014. “Live to win another day: Why many militant organizations survive yet few succeed.” *Studies in Conflict & Terrorism* 37 (2): 135–161.

Acosta, Benjamin. 2016. “Dying for survival: Why militant organizations continue to conduct suicide attacks.” *Journal of Peace Research* 53 (2): 180-196.

Acosta, Benjamin, and Steven J. Childs. 2013. “Illuminating the Global Suicide-Attack Network.” *Studies in Conflict & Terrorism* 36: 49-76.

“Air Tigers were on ‘9/11’ mission.” 2009. *Daily Mirror*, February 21. https://web.archive.org/web/20090224123944/http://www.dailymirror.lk/DM_BLOG/Sections/frmNewsDetailView.aspx?ARTID=41297.

Ali, Ameer. 1997. “The Muslim Factor in Sri Lankan Ethnic Crisis.” *Journal of Muslim Minority Affairs* 17 (2): 253-267.

Ali, Farhana, and Jerrold Post. 2008. “The History and Evolution of Martyrdom in the Service of Defensive Jihad: An Analysis of Suicide Bombers in Current Conflicts.” *Social Research* 75 (2): 615-654.

Aliyev, Huseyn, and Emil A. Souleimanov. 2019. “Ethnicity and conflict severity: accounting for the effect of co-ethnic and non-ethnic militias on battlefield lethality.” *Third World Quarterly* 40 (3): 471-487.

Andvig, Jens Christopher, and Scott Gates. 2010. “Recruiting Children for Armed Conflict.” In *Child Soldiers in the Age of Fractured States*, eds. Scott Gates and Simon Reich, 77-92. Pittsburgh: University of Pittsburgh Press.

Antiterrorism Act of 1990, H.R. 5670, 101st Cong. (1990). https://www.congress.gov/bill/101st-congress/house-bill/5670.

Arango, Tim. 2010. “Top Qaeda Leaders in Iraq Reported Killed in Raid.” *The New York Times*, April 19.

Asal, Victor H., and R. Karl Rethemeyer. 2015. *Big Allied and Dangerous Dataset*, version 2. http://www.start.umd.edu/baad/database.html.

Asal, Victor H., and R. Karl Rethemeyer. 2018. *Big Allied and Dangerous (BAAD) Dataset Version 2.00: Insurgency and Crime Release.* University at Albany, State University of New York.

Asal, Victor H., R. Karl Rethemeyer, and Schoon. 2019. "Crime, Conflict, and the Legitimacy Trade-Off: Explaining Variation in Insurgents' Participation in Crime." *The Journal of Politics* 81 (2): 399-410.

Ashworth, Scott, Joshua D. Clinton, Adam Meirowitz, and Kristopher W. Ramsay. 2008. "Design, inference, and the strategic logic of suicide terrorism." *American Political Science Review* 102 (2): 269-273.

Athas, Iqbal. 2007. "The terrible truth behind the freezer truck." *The Sunday Times*, July 8. https://www.sundaytimes.lk/070708/Columns/sitreport.html.

Atran, Scott. 2003. "Genesis of Suicide Terrorism." *Science* 299 (5612): 1534-1539.

Baconi, Tareq. 2018. *Hamas Contained: The Rise and Pacification of Palestinian Resistance*. Stanford: Stanford University Press.

Bakker, Ryan, Daniel W. Hill, Jr., and Will H. Moore. 2016. "How much terror? Dissidents, governments, institutions, and the cross-national study of terror attacks." *Journal of Peace Research* 53 (5): 711-726.

Balasingham, Anton. 2004. *War and Peace: Armed Struggle and Peace Efforts of Liberation Tigers*. Mitcham, United Kingdom: Fairmax Publishing Ltd.

Belasco, Amy. 2009. *Troop Levels in the Afghan and Iraq Wars, FY2001-FY2012: Cost and Other Potential Issues*. Washington: Congressional Research Service.

Benmelech, Efraim, Claude Berrebi, and Esteban F. Klor. 2012. "Economic Conditions and the Quality of Suicide Terrorism." *The Journal of Politics* 74 (1): 113-28.

Benmelech, Efraim and Claude Berrebi. 2007. "Human Capital and the Productivity of Suicide Bombers." *Journal of Economic Perspectives* 21 (3): 223-38.

Bergen, Peter. 2021. *The Rise and Fall of Osama Bin Laden*. New York: Simon and Schuster.

Berman, Eli, and David D. Laitin. 2005. "Hard Targets: Theory and Evidence on Suicide Attacks." *National Bureau of Economic Research Working Paper Series*: Working Paper 11740.

Berman, Eli, and David D. Laitin. 2008. "Religion, terrorism and public goods: Testing the club model." *Journal of Public Economics* 92: 1942-1967.

Bhavnani, Ravi, Dan Miodownik, and Hyun Jin Choi. 2011. “Violence and Control in Civil Conflict: Israel, the West Bank, and Gaza.” *Comparative Politics* 44 (1): 61-80.

Bloom, Mia. 2004. “Palestinian Suicide Bombing: Public Support, Market Share, and Outbidding.” *Political Science Quarterly* 119 (1): 61-88.

Bloom, Mia. 2005. *Dying to Kill: The Allure of Suicide Terror*. New York: Columbia University Press.

Böhmelt, Tobias, Vicenzo Bove, and Kristian Skrede Gleditsch. 2019. “Blame the victims? Refugees, state capacity, and non-state actor violence.” *Journal of Peace Research* 56 (1): 73-87.

Bose, Sumantra. 1995. “State Crises and Nationalities Conflict in Sri Lanka and Yugoslavia.” *Comparative Political Studies* 28 (1): 87-116.

Bose, Sumantra. 2007. *Contested Lands: Israel-Palestine, Kashmir, Bosnia, Cyprus, and Sri Lanka*. Cambridge, MA: Harvard University Press.

Braun, Robert, and Michael Genkin. 2014. “Cultural Resonance and the Diffusion of Suicide Bombings: The Role of Collectivism.” *Journal of Conflict Resolution* 58 (7): 1258-84.

Brooks, Risa. 2021. “Tying the Hands of Militants: Civilian Targeting and Societal Pressures in the Provisional IRA and Palestinian Hamas.” *Journal of Global Security Studies* 7 (1): 1-22.

Bueno de Mesquita, Ethan. 2005. “The Quality of Terror.” *American Journal of Political Science* 49 (3): 515-530.

Butler, Christopher K., and Scott Gates. 2010. “The Technology of Terror: Accounting for the Strategic Use of Terrorism.” *Economics of Security Working Paper Series*: Working Paper 30.

Byman, Daniel. 2006. “Friends like These: Counterinsurgency and the War on Terrorism.” *International Security* 31 (2): 79-115.

Byman, Daniel. 2016. “Understanding the Islamic State—A Review Essay.” *International Security* 40 (4): 127-165.

Carter, Brittnee. 2022. “When civilians are targets: The fatal effects of state sponsored religiously motivated terrorism.” *Democracy and Security* 18 (1): 26-50

Carter, Brittnee, Maya Van Nuys, and Cagil Albayrak. 2021. “State Sponsorship of Religiously Motivated Terrorism: A Deadly Combination.” *Democracy and Security* 17 (2): 181-129.

Cedeman, Lars-Erik, Nils B. Weidmann, and Kristian Skrede Gleditsch. 2011. “Horizontal Inequalities and Ethnonationalist Civil War: A Global Comparison” *American Political Science Review* 105 (3): 478-495.

Central Bank of Sri Lanka. 2002. *Annual Report of the Monetary Board to the Hon. Minister of Finance for the Year 2001*. Colombo, Sri Lanka: Central Bank of Sri Lanka.

Chehab, Zaki. 2005. *Inside the Resistance: The Iraqi Insurgency and the Future of the Middle East*. New York: Nation Books.

Chehab, Zaki. 2007. *Inside Hamas: The Untold Story of Militants, Martyrs and Spies*. London: I.B. Tauris and Co Ltd.

Chicago Project on Security and Threats (CPOST). 2021. *Database on Suicide Attacks* (October 2, 2020 Release) [Data File]. http://cpost.uchicago.edu/.

Chmaytelli, Maher, and Ahmed Aboulenein. 2017. “Iraq declares final victory over Islamic State.” *Reuters,* December 9. https://www.reuters.com/article/us-mideast-crisis-iraq-islamicstate/iraq-declares-final-victory-over-islamic-state-idUSKBN1E30B9.

Choi, Seung-Whan, James A. Piazza. 2016. “Internally Displaced Populations and Suicide Terrorism.” *Journal of Conflict Resolution* 60 (6): 1008-40.

Choi, Seung-Whan, James A. Piazza. 2017. “Foreign Military Interventions and Suicide Attacks.” *Journal of Conflict Resolution* 61 (2): 271-297.

Chulov, Martin, Fazel Hawramy, and Spencer Ackerman. 2014. “Iraq army capitulates to Isis militants in four cities.” *The Guardian,* June 11. https://www.theguardian.com/world/2014/jun/11/mosul-isis-gunmen-middle-east-states.

CIA World Factbook. 2023. “Iraq.” *The World Factbook,* May 30. https://www.cia.gov/the-world-factbook/countries/iraq/.

Collier, Paul, Anke Hoeffler, and Dominic Rohner. 2009. “Beyond greed and grievance: feasibility and civil war.” *Oxford Economic Papers* 61: 1-27.

Collier, Paul, and Anke Hoeffler. 2004. “Greed and grievance in civil war.” *Oxford Economic Papers* 56: 563-595.

“Colombia’s Farc officially ceases to be an armed group.” 2017. *BBC,* June 27. https://www.bbc.com/news/world-latin-america-40417207.

Cooper, Helen, and Michael D. Shear. 2014. “Obama to Send 1,500 More Troops to Assist Iraq.” *The New York Times*, November 7.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, David Altman, Michael Bernhard, Agnes Cornell, M. Steven Fish, Lisa Gastaldi, Haakon Gjerløw, Adam Glynn, Allen Hicken, Anna Lührmann, Seraphine F. Maerz, Kyle L. Marquardt, Kelly McMann, Valeriya Mechkova, Pamela Paxton, Daniel Pemstein, Johannes von Römer, Brigitte Seim, Rachel Sigman, Svend-Erik Skaaning, Jeffrey Staton, Aksel Sundtröm, Eitan Tzelgov, Luca Uberti, Yi-ting Wang, Tore Wig, and Daniel Ziblatt. 2021a. “V-Dem Codebook v11.1.” *Varieties of Democracy (V-Dem) Project*.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, Nazifa Alizada, David Altman, Michael Bernhard, Agnes Cornell, M. Steven Fish, Lisa Gastaldi, Haakon Gjerløw, Adam Glynn, Allen Hicken, Garry Hindle, Nina Ilchenko, Joshua Krusell, Anna Lührmann, Seraphine F. Maerz, Kyle L. Marquardt, Kelly McMann, Valeriya Mechkova, Juraj Medzihorsky, Pamela Paxton, Daniel Pemstein, Josefine Pernes, Johannes von Römer, Brigitte Seim, Rachel Sigman, Svend-Erik Skaaning, Jeffrey Staton, Aksel Sundström, Eitan Tzelgov, Yi-ting Wang, Tore Wig, Steven Wilson and Daniel Ziblatt. 2021b. “V-Dem [Country–Year/Country–Date] Dataset v11.1” *Varieties of Democracy (V-Dem) Project*. https://doi.org/10.23696/vdemds21.

Cordesman, Anthony H., with assistance from Emma R. Davies. 2008. *Iraq’s Insurgency and the Road to Civil Conflict*, Vol. 1. Westport, CT: Praeger Security International.

Crenshaw, Martha. 1981. “The Causes of Terrorism.” *Comparative Politics* 13 (4): 379-399.

Crenshaw, Martha. 2009. “Intimations of Mortality or Production Lines? The Puzzle of ‘Suicide Terrorism.’” *Political Psychology* 30 (3): 359-364.

Darusman, Marzuki, Steven Ratner, and Yasmin Sooka. 2011. *Report of the Secretary-General’s Panel of Experts on Accountability in Sri Lanka*. New York: United Nations.

David, Saul. 2020. *Crucible of Hell: The Heroism and Tragedy of Okinawa, 1945*. New York: Hachette Books.

Devlin, Peter. 2006. *State of the Insurgency in al-Anbar* (United States Marine Corps intelligence report).

Dixit, J.N. 1998. *Assignment Colombo*. Delhi: Konark Publishers.

Dodwell, Brian, Daniel Milton, and Don Rassler. 2016. *Then and Now: Comparing the Flow of Foreign Fighters to AQI and the Islamic State*. West Point, NY: Combating Terrorism Center at West Point.

Encyclopedia Britannica. 2023. "Tamil." *Encyclopedia Britannica*, January 11. https://www.britannica.com/topic/Tamil.

Evans, Tyler, Daniel J. Milton, and Joseph K. Young. 2021. "Choosing to Fight, Choosing to Die: Examining How ISIS Foreign Fighters Select Their Operational Roles." *International Studies Review* 23: 509-531.

Fairfield, Hannah, Tim Wallace, and Derek Watkins. 2015. "How ISIS Expands." *The New York Times,* May 21. https://www.nytimes.com/interactive/2015/05/21/world/middleeast/how-isis-expands.html.

Fearon, James D. 2004. "Why Do Some Civil Wars Last So Much Longer Than Others?" *Journal of Peace Research* 41 (3): 275-301.

Fearon, James D., and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97 (1): 75-90.

Fearon, James D., and David D. Laitin. 2011. "Sons of the Soil, Migrants, and Civil War." *World Development* 39 (2): 199-211.

Felter, Joseph, and Brian Fishman. 2007. *Al-Qa'ida's Foreign Fighters in Iraq: A First Look at the Sinjar Records*. West Point, NY: Combating Terrorism Center at West Point.

Findley, Michael G., and Joseph K. Young. 2012. "More Combatant Groups, More Terror?: Empirical Tests of an Outbidding Logic." *Terrorism and Political Violence* 24: 706-721.

Fortna, Virginia Page. 2015. "Do Terrorists Win? Rebels' Use of Terrorism and Civil War Outcomes." *International Organization* 69: 519-556.

Fraser, Andrew. 2017. "Martyrdom's Children: The Tragedy of Child Suicide Bombers in Afghanistan." *Canadian Military Journal* 17 (3): 40-52.

Fuard, Asif. 2009. "Tigers go kamikaze but attacks fail." *The Sunday Times,* February 22. https://www.sundaytimes.lk/090222/News/sundaytimesnews_02.html.

Gambetta, Diego. 2006. "Epilogue to the Paperback Edition." In *Making Sense of Suicide Missions,* paperback, expanded and updated edition, ed. Diego Gambetta, 301-333. Oxford, United Kingdom: Oxford University Press.

Gassebner, Martin, and Simon Luechinger. 2011. “Lock, stock, and barrel: a comprehensive assessment of the determinants of terror.” *Public Choice* 149: 235-261.

Gerges, Fawaz A. 2011. *The Rise and Fall of Al-Qaeda*. New York: Oxford University Press.

Gerges, Fawaz A. 2021. *ISIS: A History*, new and expanded edition. Princeton: Princeton University Press.

Gilbert, Marc Jason. 2002. “The Cost of Losing the ‘Other War’ in Vietnam.” In *Why the North Won the Vietnam War,* ed. Marc Jason Gilbert, 153-199. New York: Palgrave.

Gleditsch, Kristian Skrede, and Andrea Ruggeri. 2010. “Political opportunity structures, democracy, and civil war.” *Journal of Peace Research* 47 (3): 299-310.

Gordon, Michael R., and Bernard E. Trainor. 2006. *Cobra II: The Inside Story of the Invasion and Occupation of Iraq*. New York: Pantheon Books.

Gordon, Michael R., and Bernard E. Trainor. 2012. *The Endgame: The Inside Story of the Struggle for Iraq, from George W. Bush to Barack Obama*. New York: Vintage Books.

Greenberg, Hanan. 2007. “Exclusive: Photos of navy ship hit during war revealed.” *Ynetnews.com*, October 11. https://www.ynetnews.com/articles/0,7340,L-3458845,00.html.

Grieg, J. Michael, and Andrew J. Enterline. 2021. *Correlates of War Project National Material Capabilities (NMC) Data Documentation*, version 6.0. University of North Texas.

Guevara, Ernesto Che. 1961. *Guerrilla Warfare*. https://faculty.chass.ncsu.edu/slatta/hi216/documents/che.htm.

Guler, Ahmet, and Mustafa Demir. 2021. “A global comparison of suicide and non-suicide terrorism.” *Journal of Policing, Intelligence and Counter Terrorism* 16 (2): 105-124.

Gunaratna, Rohan. 2001. “A wake-up call.” *Frontline*, August 18. https://frontline.thehindu.com/world-affairs/article30251578.ece.

Hafez, Mohammed M. 2006a. “Rationality, Culture, and Structure in the Making of Suicide Bombers: A Preliminary Theoretical Synthesis and Illustrative Case Study.” *Studies in Conflict & Terrorism* 29 (2): 165-185.

Hafez, Mohammed M. 2006b. “Suicide Terrorism in Iraq: A Preliminary Assessment of the Quantitative Data and Documentary Evidence.” *Studies in Conflict & Terrorism* 29 (6): 591-619.

Hafez, Mohammed M. 2007. *Suicide Bombers in Iraq: The Strategy and Ideology of Martyrdom*. Washington: United States Institute of Peace Press.

Hashim, Ahmed S. 2006. *Insurgency and Counter-Insurgency in Iraq*. Ithaca, NY: Cornell University Press.

Hashim, Ahmed S. 2013. *When Counterinsurgency Wins: Sri Lanka’s Defeat of the Tamil Tigers*. Philadelphia: University of Pennsylvania Press.

Hassan, Nasra. 2001. “An Arsenal of Believers.” *The New Yorker*, November 19.

Hechter, Michael. 1987. *Principles of Group Solidarity*. Berkeley, CA: University of California Press.

Hellmueller, L., V. Hase and P. Lindner. 2022. “Terrorist Organizations in the News: A Computational Approach to Measure Media Attention Toward Terrorism.” *Mass Communication and Society* 25 (1): 134-157.

Hill, Peter. 2006. “Kamikaze, 1943-5.” In *Making Sense of Suicide Missions*, paperback, expanded and updated edition, ed. Diego Gambetta, 1-42. Oxford, United Kingdom: Oxford University Press.

Hoole, Rajan. 2014. “The Premadasa Assassination.” *Colombo Telegraph*, June 21. https://www.colombotelegraph.com/index.php/the-premadasa-assassination/.

Hopgood, Stephen. 2006. “Tamil Tigers, 1987-2002.” In *Making Sense of Suicide Missions*, paperback, expanded and updated edition, ed. Diego Gambetta, 43-76. Oxford, United Kingdom: Oxford University Press.

Horowitz, Donald L. 2000. *Ethnic Groups in Conflict*, 2nd edition. Berkeley, CA: University of California Press.

Horowitz, Michael C. 2010a. “Nonstate Actors and the Diffusion of Innovations: The Case of Suicide Terrorism.” *International Organization* 64: 33-64.

Horowitz, Michael C. 2010b. *The Diffusion of Military Power: Causes and Consequences for International Politics.* Princeton: Princeton University Press.

Horowitz, Michael C. 2015. “The Rise and Spread of Suicide Bombing.” *Annual Review of Political Science* 18: 69-84.

Hovil, Lucy, and Eric Werker. 2005. “Portrait of a Failed Rebellion: An Account of Rational, Sub-Optimal Violence in Western Uganda.” *Rationality and Society* 17 (1): 5-34.

Huang, Carol. 2009. “Briefing: Sri Lanka’s Tamil Tiger conflict.” *The Christian Science Monitor*, May 18.

Hultman, Lisa. 2007. “Battle Losses and Rebel Violence: Raising the Costs for Fighting.” *Terrorism and Political Violence* 19: 205-222.

Human Rights Watch. 1990. *Human Rights Watch World Report 1990*. New York: Human Rights Watch. https://www.hrw.org/reports/1990/WR90/.

Human Rights Watch. 2004. “Sri Lanka: Tamil Tigers Forcibly Recruit Child Soldiers.” *Human Rights Watch*, November 11. https://www.hrw.org/news/2004/11/11/sri-lanka-tamil-tigers-forcibly-recruit-child-soldiers.

Iannaccone, Laurence R. 2004. “The Market for Martyrs.” *Mercatus Center: George Mason University*: Working Paper 36.

Iannaccone, Laurence R. 2006. “The Market for Martyrs.” *Interdisciplinary Journal of Research on Religion* 2 (4): 1-29.

Inquiry Into the Treatment of Detainees in U.S. Custody: Report of the Committee On Armed Services United States Senate, S. Rep, 110th Cong. (2008). https://www.govinfo.gov/content/pkg/CPRT-110SPRT48761/pdf/CPRT-110SPRT48761.pdf.

International Committee of the Red Cross. 2023. “What does the law say about the responsibilities of the Occupying Power in the occupied Palestinian territory?” *International Committee of the Red Cross*, March 28. https://www.icrc.org/en/document/ihl-occupying-power-responsibilities-occupied-palestinian-territories.

Iraq Body Count. 2023. “Database.” *Iraq Body Count*, accessed March 20. https://www.iraqbodycount.org/database/.

Iraq Coalition Casualty Count. 2023a. “Fatalities by Province.” *iCasualties.org*, accessed May 2. http://icasualties.org/iraqMap.

Iraq Coalition Casualty Count. 2023b. “Fatalities By Year and Country.” *iCasualties.org*, accessed March 24. http://icasualties.org/.

Iraq Study Group. 2006. *The Iraq Study Group Report*. New York: Vintage Books.

"Iraqis flee Mosul after fighters seize city." 2014. *Al Jazeera*, June 11. https://www.aljazeera.com/news/2014/6/11/iraqis-flee-mosul-after-fighters-seize-city.

Jetter, Michael. 2019. "More Bang for the Buck: Media Coverage of Suicide Attacks." *Terrorism and Political Violence* 31 (4): 779-799.

Jeyaraj, D.B.S. 2014. "The incident that rocked Ceylon 55 Years Ago: The Assassination of Prime Minister S.W.R.D. Bandaranaike." *Daily Mirror Online*, September 26. https://www.dailymirror.lk/53002/the-incident-that-rocked-ceylon-55-years-ago-the-assassination-of-prime-minister-swrd-bandaranaike.

Jones, Seth G., James Dobbins, Daniel Byman, Christopher S. Chivvis, Ben Connable, Jeffrey Martini, Eric Robinson, and Nathan Chandler. 2017. *Rolling Back the Islamic State*. Santa Monica, CA: RAND Corporation.

Kaaman, Hugo. 2017. "The evolution of Suicide Car Bombs examined." *Action on Armed Violence (AOAV)*, August 23. https://aoav.org.uk/2017/evolution-suicide-car-bombs/.

Kaaman, Hugo. 2019. "Car Bombs as Weapons of War: ISIS's Development of SVBIEDs, 2014-19." *Policy Paper 2019, Middle East Institute*: Paper 7.

Kaczkowski, Wojciech, Carol Winkler, Kareem El Damanhoury, and Yennhi Luu. 2021. "Intersections of the Real and the Virtual Caliphates: The Islamic State's Territory and Media Campaign." *Journal of Global Security Studies* 6 (2): 1-15.

Kaltenthaler, Karl, William J. Miller, Stephen Ceccoli, and Ron Gelleny. 2010. "The Sources of Pakistani Attitudes toward Religiously Motivated Terrorism." *Studies in Conflict & Terrorism* 33 (9): 815-835.

Kalyvas, Stathis N. 1999. "Wanton and Senseless?: The Logic of Massacres in Algeria." *Rationality and Society* 11 (3): 243-285.

Kalyvas, Stathis N., and Ignacio Sánchez-Cuenca. 2006. "Killing Without Dying: the Absence of Suicide Missions." In *Making Sense of Suicide Missions*, paperback, expanded and updated edition, ed. Diego Gambetta, 209-232. Oxford, United Kingdom: Oxford University Press.

Kantha, Sachi Sri. 2004. "Black Tigers: A Review of Sooriya Puthalvargal 2003 Memorial Souvenir." *Tamilnation.org*, June 22. https://tamilnation.org/ltte/black_tigers/index.htm.

Kaufman, Stuart J. 2006. "Symbolic Politics or Rational Choice?: Testing Theories of Extreme Ethnic Violence." *International Security* 30 (4): 45-86.

Kitson, Frank. 1971. *Low Intensity Operations: Subversion, Insurgency, Peace-keeping*. London: Faber and Faber.

Krain, Matthew, and Marissa Edson Meyers. 1997. "Democracy and civil war: A note on the democratic peace proposition." *International Interactions* 23 (1): 109-118.

Krieger, Tim, and Daniel Meierrieks. 2011. "What causes terrorism?" *Public Choice* 147: 3-27.

"Kumaratunga ahead in Sri Lanka poll." 1999. *BBC*, December 22. http://news.bbc.co.uk/2/hi/south_asia/572118.stm.

Lawrence, T.E. 2014. "T.E. Lawrence on guerrilla warfare." *Encyclopedia Britannica*, November 6. https://www.britannica.com/topic/T-E-Lawrence-on-guerrilla-warfare-1984900.

Lendon, Brad. 2023. "Three weapons that changed the course of Ukraine's war with Russia." *CNN.com*, February 25. https://www.cnn.com/2023/02/25/europe/ukraine-war-three-key-weapons-intl-hnk/index.html.

Lewis, Jessica D. 2013a. "Al-Qaeda in Iraq Resurgent: The Breaking the Walls Campaign, Part I." *Middle East Security Report, Institute for the Study of War*: Report 14.

Lewis, Jessica D. 2013b. "Al-Qaeda in Iraq Resurgent, Part II." *Middle East Security Report, Institute for the Study of War*: Report 15.

Lin, Biao. 1965. *Long Live the Victory of People's War!* https://www.marxists.org/reference/archive/lin-biao/1965/09/peoples_war/index.htm.

Long, Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage.

Malley, Robert. 1996. *The Call from Algeria: Third Worldism, Revolution, and the Turn to Islam*. Berkeley, CA: University of California Press.

Mann, H.B., and D.R. Whitney. 1947. "On a Test of Whether one of Two Random Variables is Stochastically Larger than the Other." *The Annals of Mathematical Statistics* 18 (1): 50-60.

Mao, Tse-tung. 1989. *Mao Tse-tung on Guerrilla Warfare*, trans. Samuel B. Griffith. Washington: Department of the Navy.

Mapping Militant Organizations. 2021. "The Islamic State." Stanford University. April 2021 version. https://cisac.fsi.stanford.edu/mappingmilitants/profiles/islamic-state.

Marcus, Raphael D. 2018. *Israel's Long War with Hezbollah: Military Innovation and Adaptation Under Fire.* Washington: Georgetown University Press.

Mason, R. Chuck. 2009. *U.S.-Iraq Withdrawal/Status of Forces Agreement: Issues for Congressional Oversight*. Washington: Congressional Research Service.

McCants, William. 2015. *The ISIS Apocalypse: The History, Strategy, and Doomsday Vision of the Islamic State*. New York: St. Martin's Press.

McChrystal, Stanley. 2014. *My Share of the Task: A Memoir*, paperback edition. New York: Portfolio/Penguin.

Milton-Edwards, Beverly, and Stephen Farrell. 2010. *Hamas: The Islamic Resistance Movement*. Cambridge, United Kingdom: Polity.

Moghadam, Assaf. 2008. *The Globalization of Martyrdom: Al-Qaeda, Salafi Jihad, and the Diffusion of Suicide Attacks*. Baltimore: The Johns Hopkins University Press.

Moore, Riley M. 2013. "Counterinsurgency force ratio: strategic utility or nominal necessity." *Small Wars and Insurgencies* 24 (5): 856-877.

Morgan, Wesley. 2021. *The Hardest Place: The American Military Adrift in Afghanistan's Pech Valley*. New York: Random House.

National Commission on Terrorist Attacks Upon the United States. 2004. *The 9/11 Commission Report*. Washington: Government Printing Office.

Nebehay, Stephanie, and Alasdair Pal. 2021. "Sri Lanka faces U.N. scrutiny over civil war crimes." *Reuters*, March 23. https://www.reuters.com/article/sri-lanka-rights-un/sri-lanka-faces-u-n-scrutiny-over-civil-war-crimes-idUSKBN2BF1DF.

Nordland, Rod. 2015. "U.S. Soldiers, Back in Iraq, Find Security Forces in Disrepair." *The New York Times*, April 14.

North Atlantic Treaty Organization. 2021. "NATO and Afghanistan RSM Placemats Archive." *North Atlantic Treaty Organization*. https://www.nato.int/cps/en/natolive/107995.htm.

Obama, Barack. 2002. "Obama's Speech Against the Iraq War." Speech delivered in Chicago on October 2. https://www.npr.org/templates/story/story.php?storyId=99591469.

Obama, Barack. 2005. "Moving Forward in Iraq." Speech delivered at the Chicago Council on Foreign Relations on November 22. http://obamaspeeches.com/040-Moving-Forward-in-Iraq-Chicago-Council-on-Foreign-Relations-Obama-Speech.htm.

Obama, Barack. 2008. “Campaign Policy Speech on Iraq at the Wilson Center.” Speech delivered at the Wilson Center, Washington on July 15. https://www.americanrhetoric.com/speeches/barackobama/barackobamairaqwarreaganbuilding.htm.

Obama, Barack. 2009. “Remarks of President Barack Obama - Responsibly Ending the War in Iraq.” Speech delivered at Camp Lejeune, North Carolina on February 27. https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-ndash-responsibly-ending-war-iraq.

Obama, Barack. 2010. “Address to the Nation on the End of Operation Iraqi Freedom.” Speech delivered at the White House, Washington on August 31. https://www.americanrhetoric.com/speeches/wariniraq/barackobamairaqendofcombatops.htm.

O’Duffy, Brendan. 2007. “LTTE: Majoritarianism, Self-Determination, and Military-to-Political Transition in Sri Lanka.” In *Terror, Insurgency, and the State: Ending Protracted Conflicts*, eds. Marianne Heiberg, Brandan O’Leary and John Tirman, 257-287. Philadelphia: University of Pennsylvania Press.

O’Hanlon, Michael E., and Jason H. Campbell. 2007. *Iraq Index: Tracking Variables of Reconstruction and Security in Post-Saddam Iraq*. Washington: Brookings Institution.

O’Hanlon, Michael E., and Ian Livingston. 2011. *Iraq Index: Tracking Variables of Reconstruction and Security in Post-Saddam Iraq*. Washington: Brookings Institution.

Olson, Mancur. 1982. *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities*. New Haven, CT: Yale University Press.

Pape, Robert A. 2003. “The Strategic Logic of Suicide Terrorism.” *American Political Science Review* 97 (3): 343-361.

Pape, Robert A. 2005. *Dying to Win: The Strategic Logic of Suicide Terrorism*. New York: Random House.

Papke, Leslie E., and Jeffrey M. Wooldridge. 1996. “Econometric Methods for Fractional Response Variables with an Application to 401 (K) Plan Participation Rates.” *Journal of Applied Econometrics* 11: 619-632.

Papke, Leslie E., and Jeffrey M. Wooldridge. 2008. “Panel data methods for fractional response variables with an application to test pass rates.” *Journal of Econometrics* 145: 121-133.

Pedahzur, Ami. 2005. *Suicide Terrorism*. Cambridge, United Kingdom: Polity.

Pedahzur, Ami, and Arie Perliger. 2006. “The changing nature of suicide attacks: A social network perspective.” *Social Forces* 84: 1987-2008.

Pemstein, Daniel, Kyle L. Marquardt, Eitan Tzelgov, Yi-ting Wang, Juraj Medzihorsky, Joshua Krusell, Farhad Miri, and Johannes von Römer. 2021. “The V-Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data.” *V-Dem Working Paper No. 21*, 6th edition. University of Gothenburg, Gothenburg, Sweden: Varieties of Democracy Institute.

Perera, Janaka. 2008. “Duraiappah’s murder: Turning point in conflict.” *Daily News*, July 28. http://archives.dailynews.lk/2008/07/28/fea02.asp.

Peresin, Anita, and Alberto Cervone. 2015. “The Western *Muhajirat* of ISIS.” *Studies in Conflict & Terrorism* 38 (7): 495-509.

Peters, Heidi M. 2021. *Department of Defense Contractor and Troop Levels in Afghanistan and Iraq: 2007-2020*. Washington: Congressional Research Service.

Petrilli, Niccolò. 2018. *Israel, Strategic Culture and the Conflict with Hamas: Adaptation and Military Effectiveness.* Oxfordshire, United Kingdom: Routledge.

Piazza, James A. 2006. “Rooted in Poverty?: Terrorism, Poor Economic Development, and Social Cleavages.” *Terrorism and Political Violence* 18 (1): 159-177.

Piazza, James A. 2008. “A Supply-Side View of Suicide Terrorism: A Cross-National Study.” *The Journal of Politics* 70 (1): 28–39.

Pincus, Walter. 2006. “Violence in Iraq Called Increasingly Complex.” *The Washington Post*, November 17. https://www.washingtonpost.com/wp-dyn/content/article/2006/11/16/AR2006111601509.html.

Popovich, Elad. 2014. “A Classical Analysis of the 2014 Israel-Hamas Conflict.” *CTC Sentinel, Combating Terrorism Center at West Point*, November/December. https://ctc.westpoint.edu/a-classical-analysis-of-the-2014-israel-hamas-conflict/.

Prabhakaran, Velupillai. 2001. “Maha Veerar Naal Address, National Heroes Day.” Speech delivered on November 27. https://tamilnation.org/ltte/vp/mahaveerar/vp01.htm.

Pratap, Anita. 2001. *Island of Blood: Frontline Reports from Sri Lanka, Afghanistan and other South Asian Flashpoints*. New York: Penguin Books.

Puthalvargal, Sooriya. 2003. *LTTE’s Memorial Souvenir*. Sri Lanka: LTTE International Secretariat.

Rashid, Ahmed. 2008. “Jihadi Suicide Bombers: The New Wave.” *The New York Review of Books*, June 12.

Record, Jeffrey. 2002. “How America’s Own Military Performance in Vietnam Aided and Abetted the ‘North’s’ Victory.” In *Why the North Won the Vietnam War*, ed. Marc Jason Gilbert, 117-136. New York: Palgrave.

Regan, Patrick M., and Sam R. Bell. 2010. “Changing Lanes or Stuck in the Middle: Why Are Anocracies More Prone to Civil Wars?” *Political Research Quarterly* 63 (4): 747-759.

Ricks, Thomas E. 2006. *Fiasco: The American Military Adventure in Iraq*. New York: The Penguin Press.

Ricks, Thomas E. 2009. *The Gamble: General David Petraeus and the American Military Adventure in Iraq, 2006-2008*. New York: The Penguin Press.

Ricolfi, Luca. 2006. “Palestinians, 1981-2003.” In *Making Sense of Suicide Missions*, paperback, expanded and updated edition, ed. Diego Gambetta, 77-129. Oxford, United Kingdom: Oxford University Press.

Roggio, Bill. 2014. “ISIS announces formation of Caliphate, rebrands as ‘Islamic State.’” *Threat Matrix: A Blog of FDD’s Long War Journal* [blog], June 29. https://www.longwarjournal.org/archives/2014/06/isis_announces_formation_of_ca.php.

Rubin, Alissa J. 2014. “Militant Leader in Rare Appearance in Iraq.” *The New York Times*, July 5.

Salehyan, Idean, David Siroky, and Reed M. Wood. 2014. “External Rebel Sponsorship and Civilian Abuse: A Principal-Agent Analysis of Wartime Atrocities.” *International Organization* 68: 633-661

Sánchez-Cuenca, Ignacio, and Luis de la Calle. 2009. “Domestic Terrorism: The Hidden Side of Political Violence.” *Annual Review of Political Science* 12: 31-49.

Schelling, Thomas C. 1966. *Arms and Influence*. New Haven, CT: Yale University Press.

Scott, James C. 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven, CT: Yale University Press.

Seifert, Katherine R., and Clark McCauley. 2014. “Suicide Bombers in Iraq, 2003–2010: Disaggregating Targets Can Reveal Insurgent Motives and Priorities.” *Terrorism and Political Violence* 26 (5): 803-820.

Shadid, Anthony. 2003. “Hussein’s Baghdad Falls: U.S. Forces Move Triumphantly Through Capital Streets, Cheered by Crowds Jubilant at End of Repressive Regime.” *The Washington Post*, April 10.

Sharp, Jeremy M., Christopher Blanchard, Kenneth Katzman, Carol Migdalovitz, Alfred Prados, Paul Gallis, Dianne Rennack, John Rollins, Steve Bowman, and Connie Veillette. 2006. *Lebanon: The Israel-Hamas-Hezbollah Conflict*. Washington: Congressional Research Service.

Singer, J. David, Stuart Bremer, and John Stuckey. 1972. “Capability Distribution, Uncertainty, and Major Power War, 1820-1965.” In *Peace, War, and Numbers*, ed. Bruce Russett, 19-48, version 6.0. Beverly Hills, CA: Sage.

Sly, Liz. 2015. “Pro-Iran militias’ success in Iraq could undermine U.S.” *The Washington Post*, February 15.

Smock, David R. 2003. “Religious Politics in Iraq.” *United States Institute of Peace*, May 27. https://www.usip.org/publications/2003/05/religious-politics-iraq.

Snedecor, George W., and William G. Cochran. 1989. *Statistical Methods*, 8th edition. Ames, IA: Iowa State University Press.

Sri Lanka Department of Census and Statistics. 2011. *Enumeration of Vital Events, 2011: Northern Province, Sri Lanka*. Colombo, Sri Lanka: Sri Lanka Department of Census and Statistics. https://web.archive.org/web/20120523050649/http://www.statistics.gov.lk/PopHouSat/VitalStatistics/EVE2011_FinalReport.pdf.

Sri Lanka Department of Census and Statistics. 2014. “Statistical Data: Population by ethnic group.” *Sri Lanka Department of Census and Statistics*. http://sis.statistics.gov.lk/statHtml/statHtml.do?orgId=144&tblId=DT_POP_SER_267&conn_path=I2.

Sri Lanka Department of Census and Statistics. 2022. “Mid-year Population Estimates by District & Sex, 2014 – 2022.” *Sri Lankan Department of Census and Statistics*. http://www.statistics.gov.lk/Population/StaticalInformation/VitalStatistics/ByDistrictand Sex.

Staniland, Paul. 2014. *Networks of Rebellion: Explaining Insurgent Cohesion and Collapse*. Ithica, NY: Cornell University Press.

Stanton, Jessica A. 2015. “Regulating Militias: Governments, Militias, and Civilian Targeting in Civil War.” *Journal of Conflict Resolution* 59 (5): 899-923.

Starr, Barbara. 2016. “Military: 50,000 ISIS fighters killed.” *CNN.com*, December 9. https://www.cnn.com/2016/12/09/politics/isis-dead-us-military/index.html.

START (National Consortium for the Study of Terrorism and Responses to Terrorism). 2021a. *Global Terrorism Database (GTD)* [Data set]. University of Maryland. https://www.start.umd.edu/gtd.

START (National Consortium for the Study of Terrorism and Responses to Terrorism). 2021b. *Global Terrorism Database Codebook: Methodology, inclusion criteria, and variables*. University of Maryland. https://www.start.umd.edu/gtd/downloads/Codebook.pdf.

Stewart, Frances. 2002. “Horizontal Inequalities: A Neglected Dimension of Development.” *Queen Elizabeth House, Working Paper Series*: Paper 81.

Strack, Columb. 2017. “Islamic State in decline.” *S & P Global Market Intelligence*, October 10. https://www.spglobal.com/marketintelligence/en/mi/research-analysis/islamic-state-in-decline.html.

Subramanian, Nirupama. 2001. “Terror at Katunayake.” *Frontline,* August 4. https://frontline.thehindu.com/world-affairs/article30251442.ece.

Swamy, M.R. Narayan. 2002. *Tigers of Lanka: From Boys to Guerrillas*, 3rd edition. Delhi, India: Konark Publishers Pvt Ltd.

Swamy, M.R. Narayan. 2003. *Inside an Elusive Mind: Prabhakaran, the First Profile of the World’s Most Ruthless Guerrilla Leader*. Colombo, Sri Lanka: Vijitha Yapa Publications.

Taguba, Antonio M. 2004. *Article 15-6 Investigation of the 800th Military Police Brigade* (official report on abuse of prisoners in Iraq). Washington: Department of Defense. https://web.archive.org/web/20071204230604/https://www.dod.mil/pubs/foi/detainees/taguba/TAGUBA_REPORT_CERTIFICATIONS.pdf.

Tambiah, Stanley J. 1986. *Sri Lanka: Ethnic Fratricide and the Dismantling of Democracy*. Chicago: University of Chicago Press.

Tambiah, Stanley J. 1996. *Leveling Crowds: Ethnonationalist Conflicts and Collective Violence in South Asia*. Berkeley, CA: University of California Press.

“Tamils mark 25-years of Tiger sacrifice.” 2007. *TamilNet*, November 27. https://www.tamilnet.com/art.html?catid=13&artid=23869.

“Tamil Tigers show off air force.” 2007. *Al Jazeera*, March 26. https://www.aljazeera.com/news/2007/3/26/tamil-tigers-show-off-air-force.

Tavernise, Sabrina, and Sahar Nageeb. 2006. “Pace of Killing in Baghdad Rises in June.” *The New York Times*, July 4.

“Terror’s new headquarters.” 2014. *The Economist*, June 14. https://www.economist.com/leaders/2014/06/14/terrors-new-headquarters.

The Global Coalition Against Daesh. 2023a. “Our Mission.” *The Global Coalition Against Daesh*. https://theglobalcoalition.org/en/mission/.

The Global Coalition Against Daesh. 2023b. “Partners List.” *The Global Coalition Against Daesh*. https://theglobalcoalition.org/en/partners/.

The Pew Forum on Religion and Public Life. 2009. *Mapping The Global Muslim Population: A Report on the Size and Distribution of the World’s Muslim Population*. Washington: Pew Research Center.

The World Bank. 2023a. “Educational attainment, at least completed post-secondary, population 25+, total (%) (cumulative).” *The World Bank*, accessed April 5. https://data.worldbank.org/indicator/SE.SEC.CUAT.PO.ZS.

The World Bank. 2023b. “Population, total – Iraq.” *The World Bank*, accessed February 14. https://data.worldbank.org/indicator/SP.POP.TOTL?locations=IQ.

Thomson, Robert. 1972. *Defeating Communist Insurgency: Experiences from Malaya and Vietnam*. London: Chatto and Windus.

Trinquier, Roger. 1964. *Modern Warfare: A French View of Counterinsurgency*, trans. Daniel Lee. London: Pall Mall Press.

United Nations Conference on Trade and Development. 2023. “Background: The question of Palestine.” *UNCTAD*, accessed June 18. https://unctad.org/topic/palestinian-people/The-question-of-Palestine.

United Nations Human Rights Council. 2016. *“They came to destroy”: ISIS Crimes Against the Yazidis*. Geneva: United Nations Human Rights Council.

United States Air Forces Central. 2017. “AFCENT Airpower Summary.” *U.S. Air Forces Central*, December 31. https://www.afcent.af.mil/Portals/82/Documents/Airpower%20summary/Airpower%20Summary%20-%20December%202017_Released.pdf?ver=2018-01-15-023307-640.

United States Department of Defense. 2009. *Measuring Stability and Security in Iraq*. Washington: United States Department of Defense.

United States Department of State. 2002. *Patterns of Global Terrorism*. https://2009-2017.state.gov/documents/organization/10319.pdf.

United States Department of State. 2021. "Foreign Terrorist Organizations." *US Department of State*. https://www.state.gov/foreign-terrorist-organizations/.

van Linschoten, Alex Strick, and Felix Kuehn. 2012. *An Enemy We Created: The Myth of the Taliban-Al Qaeda Merger in Afghanistan*. Oxford, United Kingdom: Oxford University Press.

"Velupillai Pirabaharan: Interview with The Week Magazine, India." 1986. *The Week Magazine*, March 23. https://tamilnation.org/ltte/vp/interviews/8603%20week.htm.

Venkataramanan, K. 2009. "LTTE air raid shows war is far from over." *The Times of India*, February 22. https://timesofindia.indiatimes.com/india/ltte-air-raid-shows-war-is-far-from-over/articleshow/4167807.cms.

Wade, Sara Jackson, and Dan Reiter. 2007. "Does Democracy Matter?: Regime Type and Suicide Terrorism." *Journal of Conflict Resolution* 51 (2): 329-348.

Wander, Andrew. 2010. "How suicide bombings shattered Iraq." *Al Jazeera*, October 24. https://www.aljazeera.com/news/2010/10/24/how-suicide-bombings-shattered-iraq.

Wasser, Becca, Stacie L. Pettyjohn, Jeffrey Martini, Alexandra T. Evans, Karl P. Mueller, Nathaniel Edenfield, Gabrielle Tarini, Ryan Haberman, and Jalen Zeman. 2021. *The Air War Against the Islamic State: The Role of Airpower in Operation Inherent Resolve*. Santa Monica, CA: RAND Corporation.

Weinstein, Jeremy M. 2005. "Resources and the Information Problem in Rebel Recruitment." *Journal of Conflict Resolution* 49 (4): 598-624.

Weiss, Michael, and Hassan Hassan. 2016. *ISIS: Inside the Army of Terror*, 2nd edition. New York: Regan Arts.

West, Bing. 2005. *No True Glory: A Frontline Account of the Battle for Fallujah*. New York: Bantam Books.

Wilcoxon, Frank. 1945. "Individual Comparisons by Ranking Methods." *Biometrics Bulletin* 1 (6): 80–83.

Wilkens, Ann. 2011. *Suicide Bombers and Society: A study of Suicide Bombers in Afghanistan and Pakistan*. Stockholm: FOI, Swedish Defence Research Agency.

Wilkinson, Paul. 2011. *Terrorism versus Democracy: The liberal state response*, 3rd edition. Oxfordshire, United Kingdom: Routledge.

Wood, Reed M. 2010. "Rebel capability and strategic violence against civilians." *Journal of Peace Research* 47 (5): 601-614.

Wood, Reed M. 2014. "From Loss to Looting? Battlefield Costs and Rebel Incentives for Violence." *International Organization* 68 (4): 979-999.

Woodward, Bob. 2004. *Plan of Attack: The Definitive Account of the Decision to Invade Iraq*. New York: Simon & Schuster.

Woodward, Bob. 2008. *The War Within: A Secret White House History, 2006-2008*. New York: Simon & Schuster.

Woody, Christopher. 2017. "US Special Operations Command chief claims '60,000 to 70,000' ISIS fighters have been killed." *Business Insider*, July 24. https://www.businessinsider.com/gen-raymond-thomas-socom-60000-to-70000-isis-fighters-killed-2017-7.

WorldPublicOpinion.org. 2006. *The Iraqi Public on the US Presence and the Future of Iraq*. College Park, MD: Program on International Policy Attitudes (PIPA), University of Maryland.

APPENDIX A

DESCRIPTIVE STATISTICS OF CONTROL VARIABLES

Variable	N	Mean	Standard Deviation	Min	Max
Islamist Ideology	1,386	0.303	0.460	0	1
Ethnic Ideology	1,386	0.543	0.498	0	1
Group Size	1,386	2.688	0.705	1	4
Territorial Control	1,386	0.247	0.431	0	1
State Sponsor	1,386	0.082	0.274	0	1
Social Service Provision	1,386	0.098	0.298	0	1
Group-Inflicted Battle Deaths	1,386	2.096	2.653	0	9.597
Number of Groups	1,386	5.157	3.692	1	14
Democracy	1,385	0.288	0.217	0.017	0.811
Log Population	1,382	17.70	1.632	13.342	20.936
Log GDP Per Capita	1,231	7.352	1.265	5.231	10.710

APPENDIX B

ROBUSTNESS CHECKS FOR FRACTIONAL LOGISTIC REGRESSION MODELS:

OLS REGRESSION MODELS TESTING HYPOTHESES 2-3 AND 6-8

OLS Regressions Models Predicting Percent of Suicide Attacks on

Hard Targets, 1998-2012

DV: Percent Hard Targets	Model 1	Model 2	Model 3	Model 4
Group Age	-0.001	-0.001	-0.001	0.000
	(0.003)	(0.004)	(0.004)	(0.005)
Troops Per 1,000 Population	-0.015***	-0.009	-0.008	-0.016*
	(0.003)	(0.006)	(0.006)	(0.008)
Islamist Ideology		-0.118	-0.102	-0.125
		(0.116)	(0.114)	(0.095)
Ethnic Ideology		-0.110*	-0.128	-0.059
		(0.065)	(0.078)	(0.073)
Group Size		-0.047	-0.022	-0.018
		(0.043)	(0.056)	(0.056)
Territorial Control		0.053	0.013	-0.024
		(0.084)	(0.065)	(0.069)
State Sponsor		-0.146	-0.132	-0.128
		(0.116)	(0.127)	(0.176)
Social Service Provision		0.023	-0.003	0.020
		(0.083)	(0.095)	(0.096)
Group-Inflicted Battle Deaths			-0.005	-0.001
			(0.018)	(0.021)
Number of Groups			-0.019	0.007
			(0.016)	(0.018)
Democracy				-0.468
				(0.321)
Log Population				-0.088
				(0.060)
Log GDP Per Capita				0.013
				(0.047)
Constant	0.789***	1.000***	1.055***	2.531*
	(0.046)	(0.206)	(0.181)	(1.062)
Number of observations	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	117 (9 obs. dropped due to missing data)
F-Statistic	19.65***	5.74***	6.84***	9.15***
R^2	0.145	0.174	0.191	0.225

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

OLS Regressions Models Predicting Percent of Suicide Attacks on

Soft Targets, 1998-2012

DV: Percent Soft Targets	Model 1	Model 2	Model 3	Model 4
Group Age	0.001	0.002	0.002	0.001
	(0.003)	(0.004)	(0.004)	(0.004)
Troops Per 1,000 Population	0.015***	0.009	0.008	0.015*
	(0.003)	(0.006)	(0.005)	(0.009)
Islamist Ideology		0.140	0.124	0.146
		(0.111)	(0.108)	(0.091)
Ethnic Ideology		0.113*	0.135*	0.066
		(0.064)	(0.078)	(0.073)
Group Size		0.045	0.022	0.019
		(0.043)	(0.056)	(0.056)
Territorial Control		-0.046	0.001	0.037
		(0.084)	(0.064)	(0.067)
State Sponsor		0.138	0.120	0.115
		(0.114)	(0.123)	(0.170)
Social Service Provision		-0.021	0.011	-0.008
		(0.081)	(0.093)	(0.093)
Group-Inflicted Battle Deaths			0.001	-0.003
			(0.018)	(0.021)
Number of Groups			0.020	-0.004
			(0.016)	(0.018)
Democracy				0.423
				(0.315)
Log Population				0.085
				(0.062)
Log GDP Per Capita				-0.007
				(0.047)
Constant	0.205***	-0.030	-0.077	-1.550
	(0.047)	(0.205)	(0.179)	(1.091)
Number of observations	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	122 (4 obs. dropped due to missing data)	117 (9 obs. dropped due to missing data)
F-Statistic	19.96***	6.17***	7.68***	9.73***
R^2	0.139	0.171	0.191	0.222

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

OLS Regressions Models Predicting Percent Suicide Attacks out of Total Terror Attacks, 1998-2012

DV: Percent Suicide Attacks	Model 1	Model 2	Model 3	Model 4
Group Age	-0.002**	-0.001	-0.001	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)
Troops Per 1,000 Population	0.006**	0.005*	0.005**	0.007**
	(0.002)	(0.002)	(0.002)	(0.003)
Islamist Ideology		0.087**	0.080**	0.070**
		(0.030)	(0.029)	(0.028)
Ethnic Ideology		-0.010	-0.006	-0.002
		(0.023)	(0.024)	(0.021)
Group Size		0.004	-0.003	-0.003
		(0.013)	(0.013)	(0.013)
Territorial Control		-0.028	-0.041*	-0.044*
		(0.022)	(0.020)	(0.022)
State Sponsor		-0.044	-0.036	-0.031
		(0.040)	(0.037)	(0.039)
Social Service Provision		-0.006	-0.007	-0.004
		(0.027)	(0.025)	(0.027)
Group-Inflicted Battle Deaths			0.010**	0.011**
			(0.003)	(0.003)
Number of Groups			0.002	0.001
			(0.002)	(0.004)
Democracy				-0.092
				(0.075)
Log Population				0.011
				(0.010)
Log GDP Per Capita				0.004
				(0.012)
Constant	0.055**	0.019	-0.009	-0.208
	(0.018)	(0.039)	(0.037)	(0.183)
Number of observations	599 (8 obs. dropped due to missing data)	599 (8 obs. dropped due to missing data)	599 (8 obs. dropped due to missing data)	573 (34 obs. dropped due to missing data)
F-Statistic	7.02***	2.54**	4.94***	3.59***
R^2	0.086	0.145	0.166	0.178

Standard errors in parentheses. Errors clustered on non-state armed groups. One-tailed tests.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

APPENDIX C

TESTS CONFIRMING STATISTICALLY SIGNIFICANT DIFFERENCES BETWEEN LTTE AND AQI/ISIL SUICIDE ATTACK DATA

In table 9, I presented data comparing the suicide attack records of the LTTE and AQI/ISIL. To confirm that there is a statistically significant difference between the two groups' suicide attack records, I conducted t-tests comparing the average means for each group of their annual percent suicide attacks on hard targets, percent suicide attacks on soft targets, and percent suicide attacks out of total terror attacks. The results of the t-tests are presented in table C.1 and confirm statistically significant differences between them with $p<0.001$. The difference in means between attacks on hard targets for the LTTE and AQI/ISIL attacks is 0.208 (20.8%). This figure is 0.191 (19.1%) between attacks on soft targets for the two groups, and the difference in suicide attacks out of total terror attacks is 0.173 (17.3%) Due to skewness in the attack data, as an additional robustness check, I next conducted Mann-Whitney *U* tests (also known as Wilcoxon rank-sum tests) for comparing samples of data that are not normally distributed (Snedecor and Cochran 1989, 142-144). These results, presented in table C.2, are similar to the results of the t-tests and indicate statistically significant differences in the data distributions between the samples of LTTE and AQI/ISIL attacks (Mann and Whitney 1947; Wilcoxon 1945).

Table C.1

Welch Two-Sample T-Tests Comparing LTTE and AQI/ISIL Suicide Attack Data

Dependent Variable	Mean Annual Percent	Difference in Means
Percent Hard Targets LTTE (n=18 group-years) vs. AQI/ISIL (n=17 group-years)	LTTE: 0.852 (85.2%) AQI/ISIL: 0.645 (64.5%)	0.208*** (0.052)
Percent Soft Targets LTTE (n=18 group-years) vs. AQI/ISIL (n=17 group-years)	LTTE: 0.131 (13.1%) AQI/ISIL: 0.322 (32.2%)	-0.191*** (0.050)
Percent Suicide Attacks LTTE (n=23 group-years) vs. AQI/ISIL (n=17 group-years)	LTTE: 0.100 (10.0%) AQI/ISIL: 0.272 (27.2%)	-0.172*** (0.046)

Standard errors in parentheses. One-tailed tests.
$^{***}p < 0.001$

Table C.2

Mann-Whitney *U* Tests Comparing LTTE and AQI/ISIL Suicide Attack Data

DV	Median Percent	*U*	p-value (one-tailed test)
Percent Hard Targets LTTE (n=18) vs. AQI/ISIL (n=17)	LTTE: 0.921 (92.1%) AQI/ISIL: 0.611 (61.1%)	59	0.0007
Percent Soft Targets LTTE (n=18) vs. AQI/ISIL (n=17)	LTTE: 0.079 (7.9%) AQI/ISIL: 0.333 (33.3%)	57	0.0005
Percent Suicide Attacks LTTE (n=23) vs. AQI/ISIL (n=17)	LTTE: 0.046 (4.6%) AQI/ISIL: 0.253 (25.3%)	60	0.0001