COMBATING TERRORISM CENTER
at West Point

Exploding Stereotypes:

The Unexpected Operational and Demographic Characteristics of Boko Haram's Suicide Bombers

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The views expressed in this report are the authors' and do not necessarily reflect those of the Combating Terrorism Center, United States Military Academy, Department of Defense, or U.S. Government.

August 2017

Cover Photo: A woman walks past burnt houses in the remote northeast town of Baga on April 21, 2013, after two days of clashes between officers of the Joint Task Force and members of the Islamist sect Boko Haram on April 19 in the town near Lake Chad, 200 kilometers north of Maiduguri, in Borno State, Nigeria. (AFP/Getty Images)

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ACKNOWLEDGMENTS

This report is one that has been accomplished through the efforts of various individuals located around the world, having never collectively assembled at the same time in the same place. With Warner based at West Point, Matfess based in northeastern Nigeria, and research assistants based in South Africa and throughout the United States, our first note of thanks goes to Google Docs and Google Sheets, without which this project would not have been possible.

As concerns non-technological acknowledgements, we must first thank Jeesue Lee and Ginny Sommers, both of whom served as CTC interns during the spring of 2017 and without whose efforts the database would not exist. We are profoundly thankful to Ellen Chapin, who served as a CTC intern on leave from her master's program at Yale during the summer of 2017. From meticulously fact-checking the database, offering trenchant insights into the data, and serving as an overall extraordinarily competent editor, Ellen has been an imperative part of the project who deserves far more credit than can be offered here. David Freifeld is credited with the outstanding visualizations of our data, including offering new insights into our dataset that we had not previously considered. Comments from Deputy Assistant Secretary of Defense for Africa Amanda Dory and Professor David Frey (USMA) were likewise insightful. External reviews from Assaf Moghadam and Don Rassler served to help us fine-tune our argument, while Matthew Page not only served as an excellent reviewer, but assisted in fieldwork in Nigeria.

Colleagues at the United States Military Academy have been indelibly important. CTC Director LTC Bryan Price and CTC Research Director Daniel Milton offered helpful suggestions along the way, in addition to providing enthusiastic support. Brian Dodwell, Muhammad al-`Ubaydi, Seth Loertscher, and Marielle Ness have also been thoughtful and supportive of the project. As always, we are thankful to Krissy Hummel for bringing her superlative editorial eye to this project. Within the United States Military Academy more broadly, we are thankful for unwavering support from COL Suzanne Nielsen, the head of the Department of Social Sciences at West Point, as well as other tiers of USMA leadership.

Jason Warner and Hilary Matfess

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Executive Summary

Introduction

Since 2009, the Islamist group known as Boko Haram (formally known as Jama'atu Ahlis Sunna Lidda'awati wal-Jihad, or more recently, the Islamic State's West Africa Province [ISWAP]) has ushered in a wave of violence across the Lake Chad Basin region of West Africa, at the intersection of Nigeria, Niger, Chad, and Cameroon.[1] Among other tactics that it has employed during its reign of terror, the group has been noted for its use of suicide bombers. While the prevalence of suicide bombings has been duly recognized, little remains known about the broader arc of their existence and efficacy: What strategic and operational trends underlie Boko Haram's use of suicide bombers, and how effective have they been at achieving their objectives? Just who are Boko Haram's suicide bombers? Where are they deployed, what do they target, and how do different bomber demographics differ in their actions? More broadly, what does Boko Haram's use of suicide bombers reveal about the past, present, and future of the terrorist group?

Methodology

Drawing on analysis of an original dataset of all Boko Haram suicide bombings from their first deployment in April 2011 to June 2017, this report presents the fullest picture available to date that tracks and analyzes Boko Haram's use of suicide bombers. To do so, we investigate two main phenomena from our dataset: operational trends of bombers (longitudinal trends, lethality, injuries, geography, and targeting trends) and demographic trends of bombers (gender, age, and recruitment). From these trends, we assert that it is possible to categorize Boko Haram's suicide bombing efforts into four distinct historical phases. In light of our understanding of the group's past and present operational and demographic trends, we conclude by suggesting how the group might act in the future and how counterterrorism efforts might best address its likely incarnations.

Overall Findings

In the main, we argue that Boko Haram's operational profile is noteworthy in that, despite the attention the group garners for its deployment of suicide bombers, it shows itself to be less effective than otherwise expected in using them. Concurrently, we argue that Boko Haram's demographic profile is unique in that it created novel uses for women and children in its suicide bombing efforts, rendering it distinctive among extant and historical terrorist groups.

Our dataset reveals that from April 11, 2011, to June 30, 2017, Boko Haram deployed 434 bombers to 247 different targets during 238 suicide-bombing attacks. At least 56% of these bombers were women, and at least 81 bombers were specifically identified as children or teenagers. A more comprehensive overview follows.

Operational Insights into Boko Haram's Suicide Bombing Efforts

In the operational section of this report, we find that despite its renown for using them, Boko Haram is not particularly adept at using suicide bombers to effect mass casualties nor is it particularly dependent upon suicide bombing as a tactic within its overall operational arsenal. Though Boko Haram is deploying suicide bombers at a rate surprising for a Sub-Saharan African insurgency, these

1 For the purposes of this report, the authors use the term Boko Haram to refer to all of the factions of the group. Though this term is at times controversial, given its colloquial adoption in both Northeast Nigeria and globally, the authors believe it appropriate to use here.

attacks do not constitute a major source of Boko Haram's lethality. When it comes to its largest suicide-bombing attacks, Boko Haram seems to have no discernible pattern regarding date, target, or nature of bomber. Importantly, we find that Boko Haram suicide bombers often fail. They often do not detonate, and when they do, they kill and injure fewer individuals per detonation than other groups that use suicide bombers. We also find that Boko Haram's use of coordinated, multiple-person suicide bombings is especially ineffective. Geographically, we show that Boko Haram initially concentrated its suicide-bombing attacks in northeastern Nigeria, but over time, the group has expanded its attacks into the Lake Chad Basin more broadly. In terms of targeting, we reveal that Boko Haram has had a surprising focus on targets like markets and bus stops, and not targets that fall in line with its jihadi, anti-Western educational ideology, such as Christian or educational establishments. Our data shows that Boko Haram bombers have tended to be most active in June and July, most inactive in the following months, and attack more often on Sundays than other days of the week.

Demographic Insights into Boko Haram's Suicide Bombing Efforts

In the demographic section of the report, we shed light on just who serves as a Boko Haram suicide bomber and how the group's demographic profile has changed over time. In perhaps our most important finding, we reveal that Boko Haram has deployed not only more total female bombers than any other terrorist group in history, but more female suicide bombers as a percentage of its overall suicide bombing cadre than any other group. We also highlight that female bombers tend to focus on different targets than men. Whereas men tend to target mostly Christian and governmental institutions, women are far more prone to target civilian locations. We underline the fact that men and women appear to be equally effective at killing when they detonate, though women are noted for detonating less often than their male counterparts. We also note Boko Haram's innovations in using men dressed as women to carry out attacks. Our demographic section also suggests Boko Haram is at the forefront of normalizing the use of children as suicide bombers, especially female children and teenagers. Boko Haram's child suicide bombers, which have tended to target markets and bus stops, have been surprisingly effective, outstripping the casualty rate of their adult counterparts.

A Chronology of Boko Haram's Suicide Bombing Efforts

Having assessed the operational and demographic trends of Boko Haram, we argue that the group's use of suicide bombings has evolved in four different historical phases, leading us to the current moment.

- The first phase was a "learning phase" (April 8, 2011, to May 12, 2013) during which the group first began to use suicide bombers, deploying exclusively men, generally to governmental targets, while it developed operational capabilities unique to its fight.
- The second phase was a "dormant phase" (May 13, 2013, to April 14, 2014), during which time Boko Haram's pace of suicide bombing slowed considerably due to the declared state of emergency and effective counterterrorism efforts by the state.
- The third phase was the "unexpected bomber phase" (April 15, 2014, to December 31, 2015), during which time Boko Haram recognized the strategic utility of using new demographics of women and children as bombers, leading to an increase in civilian targeting and resulting in its most lethal and injurious period.
- Finally, we suggest that the group is currently in the fourth "incremental innovation" phase (January 1, 2016, to today); having been stymied in its efforts within northeastern Nigeria, Boko Haram appears to be doubling down on its use of women and children to target new locations, including internally displaced persons (IDP) camps.

In light of this evolution, we close by suggesting our interpretation of the future of the current phase and elucidating some possible methods for combating current and future trends in Boko Haram's use of suicide bombers.

Introduction

"Witnesses said the young girl was buying noodles from a stall in the Customs area of the city at around 9:30 PM on Saturday when she detonated her explosives. 'The girl walked towards the crowd but she blew up before she could reach her target,' Grema Usman, who lives in the area, told the AFP agency. '(Judging) from her corpse the girl was around ten years old,' Mr. Usman said."[2]

***

"The first bomber stood by a motorised rickshaw packed with goods in the bustling market and took a call on her mobile phone. 'She then dropped it (the mobile phone) and at that moment she blew herself up, so people thought the bomb was concealed in the rickshaw,' he added. 'About 10 minutes later, another woman who looked about 19 and carrying what looked like a baby on her back under hijab arrived at the scene that was crowded by rescuers and locals. 'She then detonated the bomb on her back.'"[3]

***

"At least 48 school students have been killed in Nigeria after a suicide bomber apparently dressed in school uniform detonated explosives in a packed assembly meeting. Around 2,000 students - some as young as 11 - were waiting to hear the principal's Monday morning address when the blast ripped through the crowd. Eyewitnesses spoke of horrific scenes as body parts were scattered all over the school compound."[4]

***

The Nigerian salafi-jihadi insurgency known as Boko Haram (formally titled Jama'atu Ahlis Sunna Lidda'awati wal-Jihad, or more recently, the Islamic State's West Africa Province [ISWAP]) has wreaked havoc throughout the Lake Chad Basin since approximately 2009, when the group's campaign of violence began in earnest.[5] In its bid to overthrow the Nigerian state and institute its strict interpretation of sharia law, Boko Haram's violence has expanded beyond Nigeria to Chad, Niger, and Cameroon. The insurgency's spread and the Nigerian government's heavy-handed counterinsurgency campaign have collectively claimed more than 35,000 lives since May 29, 2011.[6] To that end, in 2015 Boko Haram gained the lamentable distinction of being the deadliest terrorist group in the world, outstripping the Islamic State, al-Qa`ida, al-Shabaab, and the FARC in terms of the total number of people killed within the calendar year.[7]

Concurrently, regional organizations and the global community have been working feverishly—and generally, with often limited success—to combat Boko Haram. In light of the insufficiencies of unilateral efforts by Nigeria to combat the group between 2010 and 2014, the African Union, in January 2015, mandated a 7,500-person force to deploy to the region, which has since been subsumed into the Multinational Joint Task Force, an operation comprised of troops from Nigeria, Chad, Cameroon, Niger, and Benin and dedicated to eradicating the group.[8] Adding to the fight, the United States and United Kingdom are known to be undertaking sundry advise-and-assist missions throughout Nigeria and the Lake Chad area, while intergovernmental organizations like the United Nations and non-governmental organizations like UNICEF, the World Food Program, Médicins Sans Frontières, and a

2 "One injured as 10-yr-old female suicide bomber kills self in Maiduguri," *Vanguard News*, January 1, 2017.

3 "45 killed as she detonated bomb on her back," *Vanguard News*, November 25, 2014.

4 Colin Freeman, "Bomb blast in Nigerian school assembly kills 28 children," *Telegraph*, November 10, 2014.

5 For additional information on the evolution of Boko Haram, see Matfess, forthcoming in *Oxford Research Encyclopedia: African History*.

6 "Nigeria Security Tracker: Mapping Violence in Nigeria," Council on Foreign Relations, November 15, 2012.

7 "Global Terrorism Index 2015," Institute for Economics and Peace, November 2015.

8 "Boko Haram crisis: African Union backs regional force of 7,500 troops," BBC, January 30, 2015.

number of other humanitarian and aid agencies are working to mitigate the humanitarian disasters that have accompanied the group's reign of terror. Despite these efforts, an end to Boko Haram's violence remains elusive.

In the course of becoming one of the deadliest terror groups of the 21st century, Boko Haram has been notable for its use of suicide bombing. For the purpose of this report, "suicide bombing" is defined as a process in which a human kills him or herself in the course of killing others for a politically or religiously motivated end. Precisely because of the shock and awe that accompany its effectuation, suicide bombing has become one of the most enduringly researched topics in the academic study of terrorism. Scholars have sought to understand the phenomenon of terrorist suicide bombing through a number of analytical lenses and from a variety of vantage points, including its very definitions;[9] its genesis;[10] its global history;[11] and methodological issues associated with its study.[12] Others have sought to understand suicide bombings' operational incarnations, including efficacy;[13] motivations of suicide bombers;[14] suicide bombing as a terrorist innovation;[15] the strategic logic of suicide bombings;[16] the extent of rationality[17] and/or psychosis behind suicide bombers;[18] the nexus of rationality and culture in suicide bombing;[19] social,[20] familial,[21] and regime-type[22] determinants of suicide bombing; and the

9 Murad M. Khan, Robert Goldney, and Riaz Hassan, "Homicide bombers: Life as a weapon," *Asian Journal of Social Science* 38:3 (2010): pp. 481-484.

10 Scott Atran, "Genesis of suicide terrorism," *Science* 299:5,612 (2003): pp. 1,534-1,539; Riaz Hassan, "Global Rise of Suicide Terrorism: An Overview," *Asian Journal of Social Science* 36:2 (2008): pp. 271–291.

11 James M. Poland, "Suicide Bombers: A Global Problem," *Humboldt Journal of Social Relations* 27:2 (2003): pp. 100–135; Farhana Ali and Jerrold Post, "The History and Evolution of Martyrdom in the Service of Defensive Jihad: An Analysis of Suicide Bombers in Current Conflicts," *Social Research* 75:2 (2008): pp. 615–654.

12 Scott Ashworth, Joshua D. Clinton, Adam Meirowitz, and Kristopher W. Ramsay, "Design, Inference, and the Strategic Logic of Suicide Terrorism," *American Political Science Review* 102:2 (2008): pp. 269–273.

13 Robert A. Pape, "Methods and Findings in the Study of Suicide Terrorism," *American Political Science Review* 102:2 (2008): pp. 275–277.

14 John Rosenberger, "Discerning the Behavior of the Suicide Bomber: The Role of Vengeance," *Journal of Religion and Health* 42:1 (2003): pp. 13–20; Arie W. Kruglanski, Xiaoyan Chen, Mark Dechesne, Shira Fishman, and Edward Orehek, "Fully Committed: Suicide Bombers' Motivation and the Quest for Personal Significance," *Political Psychology* 30:3 (2009): pp. 331–357.

15 Michael C. Horowitz, "Nonstate Actors and the Diffusion of Innovations: The Case of Suicide Terrorism," *International Organization* 64:1 (2010): pp. 33–64.

16 Robert Pape, *Dying to Win: The strategic logic of suicide terrorism* (New York: Random House, 2005), pp. 343–361; Louis-Jean Duclos and Daniel Hermant, "Mort Volontaire Combattante: Sacrifices et Stratégies," *Cultures et Conflits* 63 (2006): pp. 7–11.

17 Ehud Sprinzak, "Rational fanatics," *Foreign Policy*, November 20, 2009.

18 Neil Krishan Aggarwal, *Mental Health in the War on Terror: Culture, Science, and Statecraft* (New York: Columbia University Press, 2015), pp. 107–132.

19 Mohammed M. Hafez, "Rationality, Culture, and Structure in the Making of Suicide Bombers: A Preliminary Theoretical Synthesis and Illustrative Case Study," *Studies in Conflict & Terrorism* 29:2 (March 1, 2006): pp. 165-185.

20 Ami Pedahzur and Arie Perliger, "The Changing Nature of Suicide Attacks: A Social Network Perspective," *Social Forces* 84:4 (2006): pp. 1,987-2,008; M. Najeeb Shafiq and Abdulkader H. Sinno, "Education, Income, and Support for Suicide Bombings: Evidence from Six Muslim Countries," *Journal of Conflict Resolution* 54:1 (2010): pp. 146-178.

21 Jean-Paul Azam, "Suicide-Bombing as Inter-Generational Investment," *Public Choice* 122:1/2 (2005): pp. 177-198.

22 Sara Jackson Wade and Dan Reiter, "Does Democracy Matter? Regime Type and Suicide Terrorism," *Journal of Conflict Resolution* 51:2 (2007): pp. 329-348; James A. Piazza, "A Supply-Side View of Suicide Terrorism: A Cross-National Study," *Journal of Politics* 70:1 (2008): pp. 28-39.

nexus of suicide bombing and gender[23] and religion.[24] Separately, others have investigated the phenomenon of suicide bombing in relation to a plethora of both historical and contemporary terrorist groups, including al-Qa`ida,[25] the Islamic State,[26] Chechen rebels,[27] the Tamil Tigers,[28] Hezbollah,[29] the Kurdistan Workers' Party (PKK),[30] and Narodnaya Volya,[31] among others.

Yet, despite the proliferation of work on suicide bombing as a terrorist strategy, we suggest that insufficient attention has been paid to suicide bombing as it presents itself in relation to the Boko Haram insurgency. Pulling together both the well-known nature of Boko Haram's employment of suicide bombers and the need for stakeholders from African states, non-African states, and international organizations to better understand the motivations and tactics behind Boko Haram's reign of carnage, this report seeks to answer various questions, including: What strategic and operational trends underlie Boko Haram's use of suicide bombers, and how effective have they been at achieving their objectives? Just who are Boko Haram's suicide bombers? Where are they deployed, what do they target, and how do different demographics of bombers differ in their actions? More broadly, what does Boko Haram's use of suicide bombers reveal about the past, present, and future of the terrorist group?

Findings

Drawing on analysis of an original dataset of all Boko Haram suicide bombings from their first deployment in April 2011 to June 2017, this report presents the fullest picture available to date in tracking and analyzing Boko Haram's use of suicide bombers. To do so, we investigate two main phenomena from our dataset: operational trends of bombers (longitudinal trends, lethality, injuries, geography, and targeting trends) and demographic trends of bombers (gender, age, and recruitment). From these trends, we assert that it is possible to categorize Boko Haram's suicide bombing efforts into four distinct historical phases. In light of our understanding of the group's past and present operational and demographic trends, we conclude by suggesting how the group might act in the future and how counterterrorism efforts might best address its likely incarnations.

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23 Mia Bloom, "Female Suicide Bombers: A Global Trend," *Daedalus* 136:1 (2007): pp. 94–102; Claudia Brunner, "Occidentalism Meets the Female Suicide Bomber: A Critical Reflection on Recent Terrorism Debates; A Review Essay," *Signs* 32:4 (2007): pp. 957-971; Amal Amireh, "Palestinian Women's Disappearing Act: The Suicide Bomber Through Western Feminist Eyes," in Rabab Abdulhadi, Evelyn Asultany, and Nadine Naber eds., *Arab and Arab American Feminisms: Gender, Violence, and Belonging* (Syracuse, NY: Syracuse University Press, 2001), pp. 29-45; Jennie Stone and Katherine Pattillo, "Al-Qaeda's Use of Female Suicide Bombers in Iraq: A Case Study," in Laura Sjoberg and Caron E. Gentry eds., *Women, Gender, and Terrorism* (Athens, GA: University of Georgia Press, 2011), pp. 159-175; Katherine E. Brown. "Blinded by the Explosion? Security and Resistance in Muslim Women's Suicide Terrorism," in Laura Sjoberg and Caron E. Gentry eds., *Women, Gender, and Terrorism* (Athens, GA: University of Georgia Press, 2011), pp. 194-226.

24 Robert J. Brym, "Religion, Politics, and Suicide Bombing: An Interpretive Essay," *Canadian Journal of Sociology/Cahiers Canadiens de Sociologie* 33:1 (2008): pp. 89-108; Jeremy Ginges, Ian Hansen, and Ara Norenzayan, "Religion and Support for Suicide Attacks," *Psychological Science* 20:2 (2009): pp. 224-230.

25 Assaf Moghadam, "Motives for Martyrdom: Al-Qaida, Salafi Jihad, and the Spread of Suicide Attacks," *International Security* 33:3 (2008): pp. 46-78; Stone and Pattillo; Domenico Tosini, "Al-Qaeda's Strategic Gamble: The Sociology of Suicide Bombings in Iraq," *Canadian Journal of Sociology/Cahiers Canadiens de Sociologie* 35:2 (2010): pp. 271-308.

26 Clare Ellis, "With a little help from my friends: an exploration of the tactical use of single-actor terrorism by the Islamic State," *Perspectives on Terrorism* 10:6 (2016); Michael Weiss and Hassan Hassan, *ISIS: Inside the army of terror* (updated edition) (New York: Simon & Schuster, 2016).

27 Robert W. Kurz and Charles K. Bartles, "Chechen suicide bombers," *Journal of Slavic Military Studies* 20:4 (2007): pp. 529-547; Anne Speckhard and Khapta Ahkmedova, "The making of a martyr: Chechen suicide terrorism," *Studies in Conflict & Terrorism* 29:5 (2006): pp. 429-492.

28 Daya Somasundaram, "Suicide Bombers of Sri Lanka," *Asian Journal of Social Science* 38:3 (2010): pp. 416-441; Eleanor Pavey, "Les Kamikazes Sri Lankais," *Cultures et Conflits* 63 (2006): pp. 135-154.

29 Azam.

30 Eunyoung Kim and Minwoo Yun, "What works? Countermeasures to terrorism: a case study of PKK," *International Journal of Comparative and Applied Criminal Justice* 32:1 (2008): pp. 65-88.

31 Astrid Von Borcke, "Violence and Terror in Russian Revolutionary Populism: The Narodnaya Volya, 1879–83," in Wolfgang J. Mommsen and Gerhard Hirschfeld eds., *Social Protest, Violence and Terror in Nineteenth-and Twentieth-century Europe* (New York: Palgrave Macmillan, 1982), pp. 48-62.

In the main, we argue that Boko Haram's operational profile is puzzling in that despite the attention that the group garners for its deployment of suicide bombers, it shows itself to be less effective than otherwise expected in using them. Concurrently, we argue that Boko Haram's demographic profile is unexpected in that it created novel uses for women and children in its suicide bombing efforts, rendering it unique among extant and historical terrorist groups. In sum, we argue that should Boko Haram continue to successfully innovate in its demographic profile, it might well make up for some inefficiencies in its operational endeavors.

Our dataset reveals that from April 11, 2011, to June 30, 2017, Boko Haram deployed 434 bombers to 247 different targets during 238 suicide-bombing attacks. At least 56% of these bombers were women, and at least 81 bombers were specifically identified as children or teenagers.

In the operational section of this report, we argue that despite its renown for using them, Boko Haram is not particularly adept at using suicide bombers to effect mass casualties nor is it particularly dependent upon suicide bombing as a tactic within its overall operational arsenal. Our findings reveal that the group launches fewer suicide attacks than other groups that employ the tactic, and suicide bombing does not constitute a major source of Boko Haram's lethality. When it comes to its largest suicide-bombing attacks, Boko Haram seems to have no discernible pattern regarding date, target, or nature of bomber. Importantly, we find that Boko Haram suicide bombers often fail. They often do not detonate, and when they do, they kill and injure fewer individuals per detonation than other groups that use suicide bombers. Importantly, we also find that Boko Haram's use of coordinated, multiple-person suicide bombings is especially ineffective. Geographically, Boko Haram initially concentrated its suicide-bombing attacks in northeastern Nigeria, but over time it has expanded its attacks into the Lake Chad Basin more broadly. In terms of targeting, we reveal that Boko Haram has had a surprising focus on civilian targets like markets and bus stops, and not targets that fall in line with its jihadi, anti-Western educational ideology, to include Christian or educational establishments. Our data shows that Boko Haram bombers have tended to be most active in June and July, most inactive in the following months, and attack more often on Sundays than other days of the week.

In the demographic section of the report, we shed light on just who serves as a Boko Haram suicide bomber and how the group's demographic profile has changed over time. In perhaps our most important finding, we reveal that Boko Haram has deployed not only more total female bombers than any other terrorist group in history, but more female suicide bombers as a percentage of its overall suicide bombing workforce than any other group. We also highlight that female bombers tend to focus on different targets than men. Whereas men tend to target mostly Christian and governmental institutions, women are far more prone to target civilian locations. We underline the fact that men and women appear to be equally effective at killing when they detonate, though women are noted for detonating less often than their male counterparts. We also note Boko Haram's innovations in using men dressed as women to carry out attacks. Our demographic section also suggests Boko Haram is at the forefront of normalizing the use of children as suicide bombers, especially female children and teenagers. Boko Haram's child suicide bombers, which have tended to target markets and bus stops, have been surprisingly effective, outstripping the casualty rate of their adult counterparts.

Having assessed the operational and demographic trends of Boko Haram, we argue that the group's use of suicide bombings has evolved in four different historical phases, leading us to the current moment. The first phase was a "learning phase" (April 8, 2011, to May 12, 2013), during which the group first began to use suicide bombers, deploying exclusively men, generally to governmental targets, while it developed its operational capabilities unique to its fight. The second phase was a "dormant phase" (May 13, 2013, to April 14, 2014), during which time Boko Haram's pace of suicide bombing slowed considerably due to the declared state of emergency and effective counterterrorism efforts by the state. The third phase was the "unexpected bomber phase" (April 15, 2014, to December 31, 2015), during which time Boko Haram recognized the strategic utility of using new demographics of women and children as bombers, leading to an increase in civilian targeting and resulting in its most

lethal and injurious period. Finally, we suggest that the group is currently in the fourth "incremental innovation" phase (January 1, 2016, to today). Having been stymied in its efforts within northeastern Nigeria, Boko Haram appears to be doubling down on the strengths of its demographic innovations of using women and children to target new locations, including IDP camps. In light of this evolution, we close by suggesting our interpretation of the future of the current phase and by elucidating some possible methods for combating current and future trends in Boko Haram's use of suicide bombers.

PART 1: METHODOLOGY

1.1 Data Collection and Verification

The data for this report was assembled by the research team using LexisNexis to cull online newspaper stories containing the search string "Nigeria OR Boko Haram AND suicide bomb OR bomber" between the years 2011-2017. The data was then coded to create a comprehensive database detailing 24 dimensions of each bombing, where data was available. Among the results returned from our search string, the database collected information regarding the date and location of bombing; nature of target; nature of bombers (including number, gender, and approximate age); nature of targets (including status as a religious or secular target, and subtype within those categories); nature of destruction wrought (including number of deaths and injuries); and instances of non-detonation.[32]

Throughout the course of detailing our own findings in this report, we also occasionally reference other datasets that have been compiled on various dimensions of this question. Notably, we compare our findings on Boko Haram's suicide bombers with those of the Suicide Attack Database from the University of Chicago's Project on Security and Threats, which, we demonstrate, broadly tracks the same trends we describe, though often misses certain observations that our dataset captures. Moreover, we occasionally augment our database's findings with those of others, such as statistics from ACLED, the Council on Foreign Relations' Nigeria Security Tracker on total numbers of fatalities caused by Boko Haram, and the 2017 UNICEF report on children caught in the Lake Chad crisis.

1.2 Caveats and Limitations of Search String and Methodology

Though LexisNexis searches both domestic and international newspapers writing about Nigeria and the Lake Chad Basin, it is less adept at capturing local, non-national newspapers that are written within Nigeria or the Lake Chad Basin. This is, in large part, because of a weak press tradition in many areas of this region. Further, we did not capture any articles not written in English, creating the possibility for uncoded incidences if they were not reported by national media in English. Since much of Boko Haram's destruction has occurred in remote areas where press access is extremely curtailed or absent, it is possible that some attacks were unreported entirely. With these limitations in mind, we are still confident in the relative accuracy of our dataset, particularly since suicide bombing is most frequently undertaken in areas of high population density (for maximum lethality), where there is a higher likelihood of the incident being reported in the media. Moreover, the evidence that Boko Haram has used suicide bombing as part of not only its operational strategy, but also its media campaign, suggests that suicide bombings can reliably receive enough press coverage to be captured by LexisNexis.

One limitation of our study is that demographic and logistical information was absent in the reporting of certain attacks, attributable both to the nature of the attacks and the limited media access and

32 Some methodological notes on the dataset are worth articulating. The number of bombers will always be greater than the number of attacks, given Boko Haram's propensity for using paired bombers or small groups of bombers. In our dataset, we assign unique ID numbers both to the attack and to each of the bombers involved. To avoid double counting, total fatalities for the attack are coded just once, regardless of how many suicide bombers there were in the attack. Similarly, details as to the target of the attack and injuries are coded once per attack.

capacity in the region. As a result, not all of our entries are fully complete. For instance, many media reports did not identify the gender or age of the bomber. For 434 Boko Haram suicide bombers, we were able to find gender markers for 338 of them, a reporting rate of 77.9%; intuitively, the prevalence of ungendered bombers complicates the discussion of what proportion of bombers are female versus male. Moreover, some bombers may have been assumed to be male and reported as such, while conversely, it is possible that media sensationalism resulted in higher rates of gender identification of female bombers.[33]

In some reports, the fatalities of suicide bombers are tallied alongside fatalities resulting from a gunman or accompanying explosion that coincided with the bombing, making it difficult to parse the exact fatality of each suicide bomber. In particular, while a suicide bombing may occur in conjunction with a non-suicide bombing or shooting, our dataset intentionally does not attribute any deaths to the suicide bombing if it is impossible to tease apart how many were killed by the suicide bomber alone. As a result, the database will count fewer casualties than other databases, like the University of Chicago's Suicide Attack Database, which instead reports the total fatality count for any suicide bombing-related event, indifferent to whether or not the suicide bombing or some other genre of attack was in fact responsible for fatalities. Our database similarly tracks failed suicide bomb attempts, which the University of Chicago does not; this will further lower the number of casualties per deployed attacker.

Furthermore, there is significant debate over whether or not suicide bombers are detonating themselves or being detonated remotely. Even in urban areas like Maiduguri, where suicide bombings are concentrated, security sector actors did not have satisfactory responses to related queries.[34] Though we initially attempted to track type of denotation, the widespread unavailability of such data ultimately led us not to attempt to include this information in our dataset.

More broadly, there is a host of semantic issues surrounding the very use of the label "suicide bomber." Debates swirl regarding the appropriateness of the term, with some arguing for a redefinition of the phenomenon as "homicide bombing"[35] or rethinking bombers who do not have the agency to consent to being a "suicide" bomber as being "person-born IEDs," or PBIEDs.[36] Moreover, interpretations from participants themselves who reject the label of "suicide bombings" in place of "martyrdom operations" give inherently different meanings to the very action in question.[37] In addition to how to conceptualize those doing the bombing, there is also debate regarding how the victims of the attack affect the classification of suicide bombing as a tactic. In this vein, some have attempted to parse out when suicide bombing should be conceptualized as a tactic of "terrorism"—when targets are civilians—versus when it should be thought of as a "guerilla" tactic—when the government is the primary target.[38] In short, while we acknowledge the presence of these debates at relevant points in our discussion, we attempt to remain agnostic to them in this report, generally employing the term "suicide bomber" without prejudice to more nuanced interpretations of its meaning.

PART 2: BOKO HARAM'S OPERATIONAL PROFILE IN SUICIDE BOMBINGS

In this section, we offer our findings related to the operational evolution of Boko Haram's suicide bombers. Specifically, we outline the patterns in the group's tactical, geographic, and targeting choices.

33 Complicating age delineation even further are cultural inconsistencies of the line between a "teen" and a "woman."

34 Hilary Matfess, fieldwork interviews, Maiduguri, Nigeria, 2017.

35 Khan, Goldney, and Hassan.

36 "Known perpetrators of IED incidents in the past five years: Boko Haram," Action on Armed Violence, May 23, 2017.

37 Ali and Post.

38 Richard Clutterbuck, *Terrorism and Guerrilla Warfare: Forecasts and Remedies* (London: Routledge, 2011).

Before delving into the data, though, the question bears asking: why does Boko Haram use suicide bombers at all? In the plainest terms, suicide bombings have been shown to be useful to insurgencies precisely because of just how effective they have proven to be historically.[39] In the main, Boko Haram uses suicide bombings because of the group's underlying assumption that they "work." That is, they can compel their target audiences—the Nigerian government and populations throughout the Lake Chad Basin—to desist in current policies and practices.

Rationale of Suicide Bombing into Terrorist Operational Portfolios

Though other examples of suicide bombing have been witnessed throughout history, the efficacy of suicide bombing as a global tactic was cemented by Hezbollah's 1983 attack on U.S. Marine barracks in Lebanon, which killed 241. In the aftermath, the United States withdrew its Marines, the attack having apparently altered its cost-benefit analysis of staying versus withdrawing.[40] From that point, the prevalence of suicide attacks continued due to their presumed efficacy. These included the 1987 attack by the Tamil Tigers in which a man drove an explosives-laden truck into Sri Lankan Army barracks, resulting in the deaths of 55 soldiers and his commemoration with a statue in Tamil-occupied Jaffna; the string of suicide bombings Hamas directed against Israel in the 1990s; and, perhaps most notably, the attacks on the Twin Towers in New York City on September 11, 2001, which killed 2,996 people and succeeded in drawing the Western coalition into a war in the Middle East, as per al-Qa`ida's wishes.[41] Pape's work has underlined how deadly suicide bombings can be, estimating that suicide bombings are 10 to 15 times more deadly than an average attack.[42]

More broadly, beyond employing suicide bombings for the functionalist reason of their effectiveness, other rationales underlie groups' decisions to employ the tactic, depending on the context of the conflict in which they are engaged. These reasons include suicide bombing's ability to enhance group morale, its capacity to engender an outstripped sense of fear in target populations, its ability to serve as a signaling mechanism to states and populations, its high precision, and the anonymity that it provides to non-bombing members of the group.[43]

Boko Haram's Logic of Suicide Bombing

In addition to its general efficacy as discussed above, suicide bombing as a tactic has obvious merits that make it particularly well-suited to Boko Haram's specific operational environment. First, suicide bombings have a low financial and human capital cost.[44] As per the oft-cited statistic, a suicide bomber costs only around $150 to "construct."[45] For an insurgency being waged at least partially around the question of poverty, suicide bombs fall within the constraints of Boko Haram's limited financial resources.[46] As Horowitz notes, "suicide bombings are often an attempt to circumvent an asymmetrical weakness by using members of the group themselves as part of the delivery mechanisms. It substitutes

39 Pape, *Dying to Win*.

40 Andrew H. Kydd and Barbara F. Walter, "The strategies of terrorism," *International Security* 31:1 (2006): pp. 49-80.

41 Iain Overton and Henry Dodd, "A Short History of Suicide Bombers," Action on Armed Violence, August 23, 2013.

42 Pape, *Dying to Win*.

43 Moghadam.

44 Ibid.

45 Bruce Hoffman, "The Logic of Suicide Terrorism," *Atlantic*, June 2003.

46 While Boko Haram's financing has often been a source of conspiracy theories and speculation—mostly centered on foreign financial flows—the more credible explanation of the insurgency's longevity is more mundane. The group is a relatively low-cost insurgency that taxes those who live under its control, robs banks, and benefited in the early years of its formation from a handful of elite local patrons.

people ... for artillery, missiles, and other expensive weapons."[47]

Second, suicide bombings are a tactic that fits within the contours of Boko Haram's reality as a young, religiously oriented group that, since 2015, has often fought over territory. Boko Haram's adoption of the tactic falls in line with Horowitz's findings about the timing of the adoption of suicide bombings in the life of a terrorist group. While religiously motivated terrorist groups have between a 50% and 60% chance of adopting the suicide bombing in their first year, the tendency for groups to adopt suicide bombing as a tactic declines dramatically as time wears on, whereas age of terrorist group has no impact on adoption of suicide bombing for non-religious groups.[48] Corroborating this commensurability argument, both Moghadam and Pape have argued that suicide bombing has been disproportionately used by religious groups and groups whose main goals include a genre of nationalist territorial reclamation, a profile that fits Boko Haram.[49] Thus, suicide bombing might be argued to be a good organizational "fit" for Boko Haram given the group's religious underpinnings and intermittent territorial ambitions.

Third, Boko Haram's neighborhood and networks have likely offered it the resources to learn how to construct such IEDs. As several scholars have shown, terrorist groups rarely figure out how to employ suicide bombers in isolation; rather, to undertake the tactic, groups typically have some degree of training from other, more experienced groups.[50] Some have suggested that between 2009 and 2015, Boko Haram was in communication with al-Qa`ida—itself responsible for the revivification of the tactic in the early 21st century—prior to pledging allegiance to the Islamic State (2015 to present). If true, these connections could mean that Boko Haram had the requisite networks for learning. For instance, some have argued somewhat contentiously that Mamman Nur, credited with the group's two first and arguably most notable suicide attacks—the 2011 bombings at the Nigerian Federal Police headquarters and the United Nations headquarters in Abuja—may have received training from al-Qa`ida and al-Shabaab.[51] However, others analysts assert it seems more plausible that Boko Haram developed this knowledge through incidental and informal regional networks rather than through a concerted arrangement with al-Qa`ida or the Islamic State.[52]

Fourth, in the context of a counterinsurgency campaign in which the state's security sector has vacillated between cultivating community cooperation through a 'winning hearts and minds' approach and demanding it through physical violence, suicide bombing's sensational nature helps Boko Haram telegraph its resolve to local communities. Applying Bloom's work[53] on suicide bombing as a signaling device, it could also be the case that Boko Haram is using the tactic to "outbid" other armed groups competing for recruits in its operational environment, demonstrating to local populations its commitment to its jihad via the employment of a profoundly disturbing tactic.

47 Horowitz.

48 Ibid.

49 Pape, *Dying to Win*; Moghadam.

50 Mia Bloom, "What the Tigers Taught Al-Qaeda," *Washington Post*, May 24, 2009.

51 Jacob Zenn, "A Biography of Boko Haram and the Bay'a to Al-Baghdadi," *CTC Sentinel* 8:3 (2015); Jacob Berntson and Sue Eedle, "Understanding the Regional and Transnational Networks that Facilitate IED use," Action on Armed Violence, May 25, 2017.

52 However, a number of other analysts and American intelligence agencies have expressed skepticism about this claim; they suggest that Boko Haram may have cultivated the technical skills to develop IEDs in the absence of such relationship. Indeed, interviews by Matfess in Maiduguri in June 2017 revealed that Boko Haram sometimes enlists the support of "engineers and chemists," often from local universities, that are not members of the insurgency. Though the interviewees did not elaborate on what roles these hired hands played, it is entirely possible that they are where the insurgency developed its capacity to build and deploy IEDs, including suicide vests. Regardless of whether the insurgency is receiving IED support from local engineers unaffiliated with the insurgency, given the regional dynamics of returning fighters and weapons dissemination that followed the death of Libya's Muammar Qaddafi in 2011, it is entirely plausible that Boko Haram was able to learn how to develop IEDs absent a relationship with a global jihadi network. This is particularly feasible given Boko Haram's propensity to use small and relatively unsophisticated IEDs.

53 Mia Bloom, "Palestinian suicide bombing: Public support, market share, and outbidding," *Political Science Quarterly* 119:1 (2004): pp. 61-88.

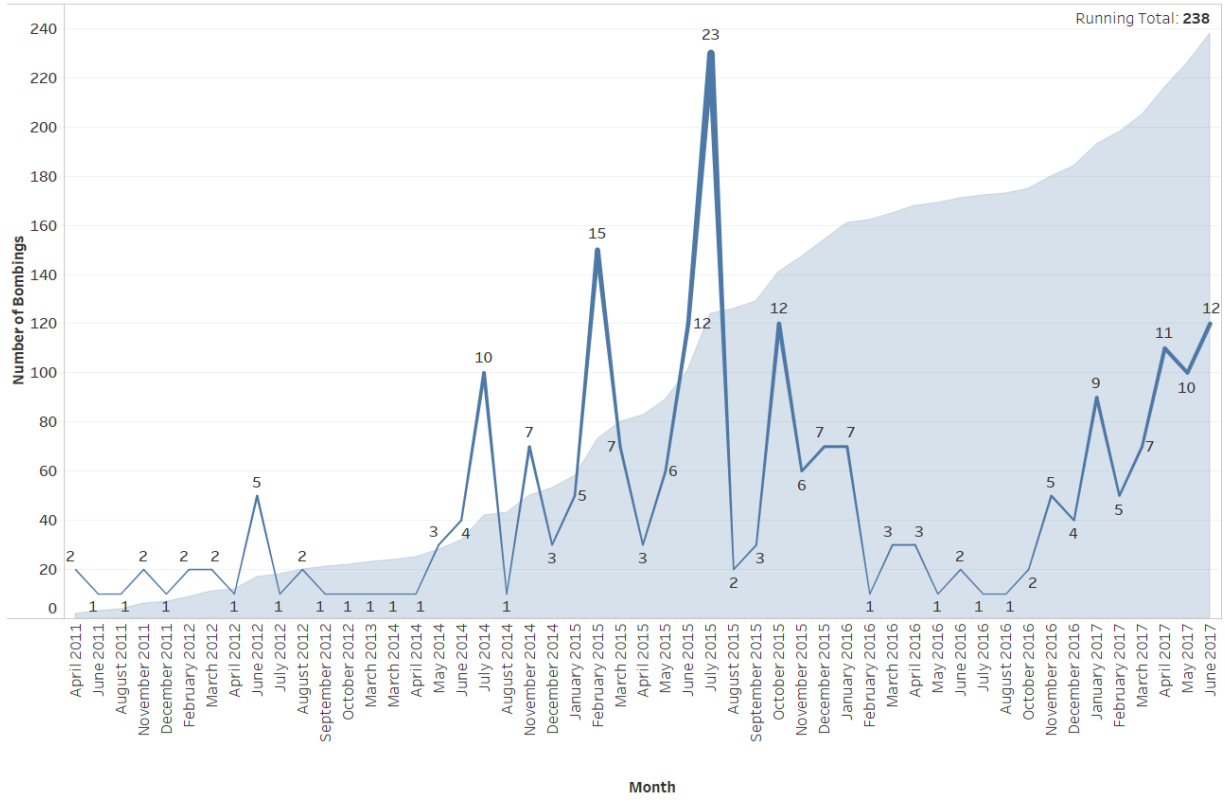
2.1: Boko Haram's Suicide Bombings: Less Effective than Other Suicide Bombing Groups

Having elucidated just why Boko Haram uses suicide bombers, we now turn to how, where, when, and what they target. Below, we present our data and our analysis of it.

An Overview of Boko Haram's Lethality in Suicide Bombing

Our dataset, which tracks all instances of Boko Haram's suicide bombers between their first use on April 8, 2011, through the completion of the writing of this report on June 30, 2017, finds 238 unique instances of suicide-bombing attacks. Collectively, these 238 instances involved a total of 434 successful or attempted bombers, some of which were deployed in coordinated attacks, explaining the existence of more attackers than attacks.[54] Through these varied suicide bombings, Boko Haram has claimed, at minimum, 1,934 lives (excluding the lives of the bombers, which adds another 349), for a total of 2,283 total suicide bombing-related deaths.

Figure 1: Boko Haram Suicide Bombings by Month (April 2011-June 2017)



Suicide Attacks: A Comparatively Little-Used Tactic

Our data, in conjunction with a study conducted by Action on Armed Violence (AoAV), suggests that Boko Haram uses suicide bombings less frequently than some similar Islamic fundamentalist groups

54 In comparison to our tally of 226 attacks, the Council on Foreign Relations' Nigeria Security Tracker registers 206 suicide attacks in this time period, while the University of Chicago's Suicide Attack Database registers 125.

as a proportion of IED attacks.[55] Indeed, since the declaration of the state of emergency in 2013—and especially since the Chibok abductions in April 2014—suicide bombing has become a feature of Boko Haram's tactical portfolio, though never a dominant style of attack.[56] Consider that Boko Haram's use of suicide bombing accounts for roughly 15% of its total attacks, including those not involving an IED, highlighting the relative marginality of the tactic within Boko Haram's broader arsenal of violence.[57] At the heart of this relative infrequency is the fact that the group has historically not been constrained profoundly in its ability to launch larger-scale, more brazen attacks, and thus has, until around 2015, not needed to resort to the more guerilla-style tactic of suicide bombings.

However, it should be noted that when compared to other African insurgencies and armed groups, Boko Haram uses the tactic far more than any of its other contemporaries. Indeed, within Sub-Saharan Africa, suicide bombing as a tactic is profoundly rare, even among groups that use IEDs in non-suicide attacks.

A Lower Percentage of Overall Fatalities from Suicide Bombings than Other Suicide-Bombing Groups

Importantly, the percentage of Boko Haram's overall deaths caused by suicide bombers is lower than many other groups that have elected to use suicide bombers. Using data from the Council on Foreign Relations' Nigeria Security Tracker, which puts Boko Haram's death toll at 16,174 at the close of June 30, 2017, it is observed that suicide attacks constitute only 21.5% of Boko Haram's overall death toll, year over year.[58]

These findings are particularly surprising when compared to other studies that assess the percentage of deaths caused by groups employing suicide bombers and find them to be particularly effective. For instance, Pape has shown that during the period between 1980 and 2001, suicide bombings accounted for only around three percent of total global terror attacks; they nevertheless accounted for approximately 48% of total global terror deaths.[59] Group-specific numbers also show the same trend of Boko Haram's suicide attacks "underperforming" in lethality. In their analysis on Palestinian suicide bombers operating between 2000 and 2005, Benmelech and Berrebi found that although suicide bombers constituted only 0.6% of all Palestinian terrorist activities, suicide bombings accounted for more than 50% of all Palestinian suicide deaths.[60]

It should be noted that although Boko Haram does not rely on suicide bombing for the majority of its fatalities, this should not be seen as deficiency in their execution of the tactic *per se*. To the contrary, the capacity of the group to arguably underutilize the tactic might alternatively suggest that it is holding the tactic in 'reserve' in case its conventional guerilla warfare tactics are stopped by multinational forces battling the group.

55 Though the AOAV report does not catalog all of the active Islamic fundamentalist groups globally and there have been some questions raised as to its methodology for totaling suicide-bombing attacks, the authors of this report were unable to find higher-quality or timely analysis of this phenomenon in global comparative perspective.

56 See "Spiraling Violence: Boko Haram Attacks and Security Force Abuses in Nigeria," Human Rights Watch, October 11, 2012; "Nigeria: Still Waiting for Justice, Still Waiting for Change. Government Must Prioritise Accountability in the North East," Amnesty International, March 14, 2016; and "The Human Rights Council Must Continue to Address Human Rights Abuses and Violations Against Civilians by Boko Haram and Security Forces in Nigeria and Cameroon," Amnesty International, October 1, 2015.

57 Berntson and Eedle.

58 "Nigeria Security Tracker: Mapping Violence in Nigeria."

59 Pape, *Dying to Win*.

60 Efraim Benmelech and Claude Berrebi, "Human capital and the productivity of suicide bombers," *Journal of Economic Perspectives* 21:3 (2007): pp. 223-238.

Lower Average Lethality per Attack than Other Suicide Bombing Groups

Our data shows that the average Boko Haram suicide-bombing attack killed 8.1 people per attack, or 4.5 casualties per bomber, a figure that is lower than what other groups have reported. While no single database giving a definitive average lethality count for all suicide bombings to date exists, we can extrapolate Boko Haram's relative inferiority when comparing its lethality to other groups.[61] For instance, in a 2013 working paper, Santifort-Jordan and Sandler estimated that the global average was approximated to be more than 27 fatalities per suicide bomber attack during the 1998 to 2010 timeframe, with the large outlier events of the 2001 9/11 attacks and the 1998 Kenya and Tanzania embassy attacks excluded.[62] For his part, Moghadam's study of all suicide-bombing attacks between 1981 and 2007 offers a more conservative estimate of an average of 11 killed per suicide-bombing attack,[63] with 26 injured, coming closer to Boko Haram's numbers. The University of Chicago's dataset approximates Moghadam's, estimating that between 1974 and 2016, the average suicide-bombing attack killed roughly 10 people.[64] Still, Boko Haram is less effective than even these conservative estimates. A more detailed explanation of just why Boko Haram's overall lethality per bomber ratio is so low is discussed in Section 2.5.

An Apparent Decline in Bombers' Efficacy to Kill

Interestingly, Boko Haram has not necessarily become more effective in its suicide bombings over time, if effectiveness is measured in fatalities alone. When disaggregated by year, it becomes clear that Boko Haram's ability to successfully kill via suicide bombings has actually been decreasing by year since 2013. The average lethality of Boko Haram's suicide attacks plateaued in 2013 (when our data recorded just one attack) and 2014 (perhaps a more representative year with 35 attacks) and has been on the steep decline since. To that end, Boko Haram's casualty rate per bomber has declined from 8.6 in 2014, 6.4 in 2015, 3.5 in 2016, to only 0.8 in 2017. Importantly, we note that a suicide bomber's effectiveness may not be best measured by the number of people killed; suicide bombers are often deployed for symbolic purposes or in targeted attacks, a phenomenon that we discuss later.[65]

Relatively Few Injuries per Suicide-Bombing Attack

When it comes to number injured, Boko Haram's suicide bombings have left a total of 2,998 injured, or an average of 12.6 injured per attack and 6.9 injured per bomber, again putting Boko Haram below global averages for injuries per suicide bombing attack. Indeed, even though our methodology arguably underreports injuries (since some news reports only relay fatalities, thus registering zero injuries), we are confident that Boko Haram is less injurious than other groups that use suicide bombers. For instance, Moghadam found that between 1981 and 2007, the average suicide attack injured 26 people, while the University of Chicago's Suicide Attack Database, which tracks suicides between 1974 and 2016, finds that the average suicide attack wounds approximately 25 individuals. We surmise that the same reasons that underlie Boko Haram's relatively low fatality statistics likely also underlie its

61 An important caveat may be the suicide bombings conducted by the Taliban in Afghanistan in the mid-2000s. For more information, see Brian Glyn Williams, "The Taliban Fedayeen: The World's Worst Suicide Bombers?" *Terrorism Monitor* 5:14 (2007).

62 Charlinda Santifort-Jordan and Todd Sandler, "An empirical study of suicide terrorism: A global analysis," *Southern Economic Journal* 80:4 (2014): pp. 981-1,001.

63 Moghadam, however, is quick to caution that his data is missing some observations, and the data range (1981 to 2007) is wide. He notes that the median killed was three and wounded was nine.

64 While Boko Haram is, at best, average in global context, it has certainly surpassed some other insurgencies that have deployed the tactic. Consider that, according to Benmelech and Berrebi (p. 227), the average lethality per attack for Palestinian suicide bombers was only 3.7 during the 2000-2005 time period.

65 Warner, Matfess, and Chapin (forthcoming) address the multiple logics that may underlie suicide bombings.

relatively low injury statistics.

2.2: Geographies of Boko Haram's Suicide Bombers

A Concentration in Northeastern Nigeria

While the Boko Haram insurgency has certainly resulted in insecurity throughout the Lake Chad Basin, Nigeria's Northeast region has undeniably borne the brunt of the crisis. Borno State has been the epicenter of the catastrophe, suffering a lion's share of the casualties with 113 total attacks (47.5% of total suicide bombings), with Yobe next at 29 total attacks (12.2% of total suicide bombings). Interestingly, the third-highest-hit state is the Extreme-Nord State in Cameroon, with 22 attacks (9.2% of total suicide bombings).

The profound concentration of bombings in Borno State is not coincidental. Ibn Taymiyyah mosque, whose followers were dubbed 'Boko Haram' for their vehement rejection of Westernization, was founded in 2002 in Maiduguri, the capital of Borno State, by Mohammed Yusuf.[66] The Ibn Taymiyyah network gave Boko Haram a broad social base centered in Maiduguri, which translated to a preponderance of the violence being committed in Borno State specifically and the Northeast region more generally. Germanely, the prevalence of Boko Haram's suicide bomber attacks in Nigeria has made the region one of the most susceptible in the world to suicide attacks. While the 1980s and 1990s saw the vast majority of suicide bombings occur in a relatively small number of countries—Sri Lanka, Israel/Palestinian Territories, Turkey, and Lebanon—the 21st century has seen the landscape in which suicide bombings occur broaden significantly, to include Iraq, Syria, Pakistan, Yemen, Somalia, and, importantly, Nigeria, Cameroon, Niger, and Chad, among others.

A Smattering of Attacks Outside of Northeastern Nigeria

Though the preponderance of suicide bombings has been in northeast Nigeria, the group has also deployed suicide bombers elsewhere throughout the broader north, including the country's central 'Middle Belt' and Northwest regions. Kano, Bauchi, and Plateau States all experienced a number of suicide bombings, despite the relatively low levels of other forms of violence from the insurgency these communities have faced.

The most ambitious suicide bombings outside of northeast Nigeria occurred in 2011—when the group attempted to bomb the United Nations building in Nigeria's capital, Abuja—and in 2014—when the group attempted to attack the Lagos airport. These attacks are important more for their ambition than anything else. The impact of these non-northeastern attacks is most notable for the resulting fear that the group intended to metastasize throughout the country.[67] This fear is perhaps overblown; it appears that the group's membership profile and relative lack of sophistication limits the geographic

66 Alex Thurston, "The disease is unbelief': Boko Haram's religious and political worldview," The Brookings Project on US Relations with the Islamic World, Analysis Paper 22 (2016). Ibn Taymiyyah began as a dissident religious community with a significant community-building infrastructure; in addition to these social support mechanisms, Yusuf used his platform at Ibn Taymiyyah to preach against Western influences, democratic norms, and the government's shortcomings. Yusuf preached both in the city during weekly sermons and the provision of religious education, but also through trips throughout the state to visit more remote communities and engage in *dawa*, a sort of missionary proselytization. Integration into smuggling and trade networks throughout the region was a natural consequence of Boko Haram's embeddedness in the local community, which itself is deeply intertwined with this trade, and allowed the group to conduct operations throughout the northeast. This process was also facilitated by the state's counterterrorism operations. As Boko Haram has gained notoriety and has been pushed out of some areas by counterterrorism operations, its social network has expanded geographically.

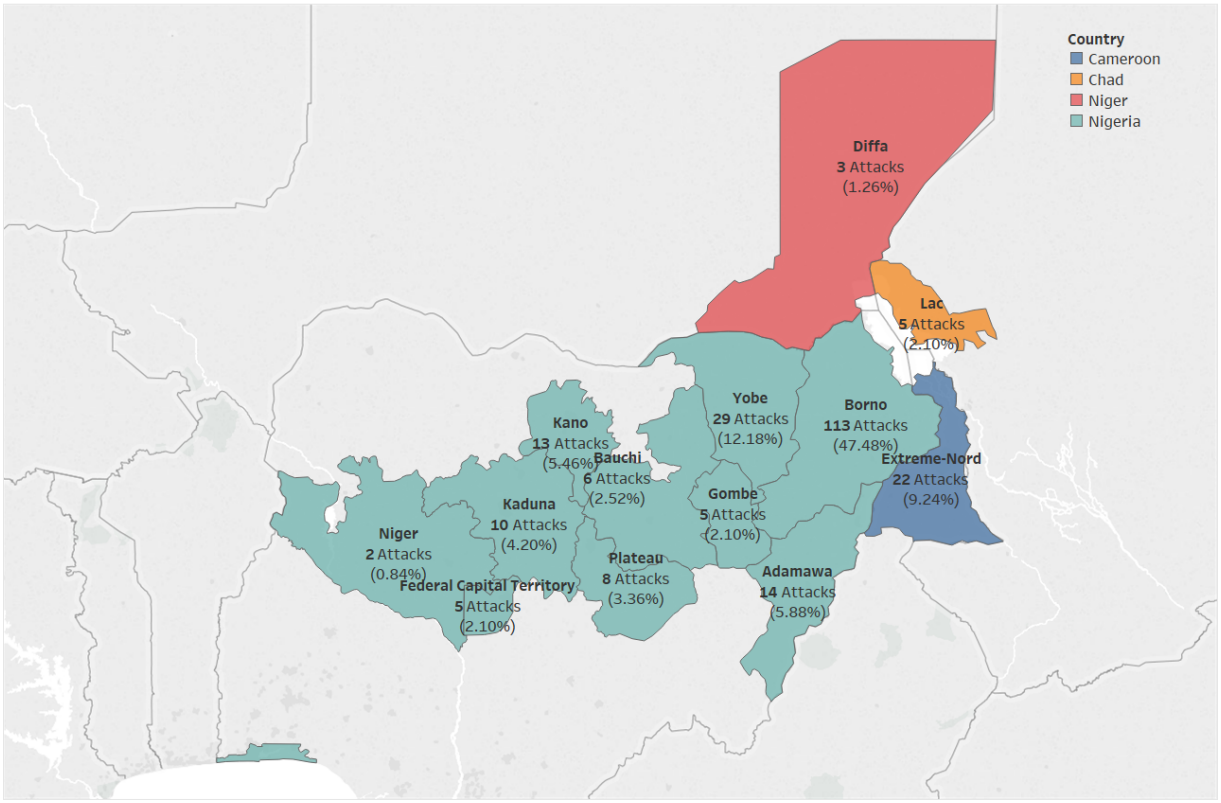
67 Scott Stearns, "Fear of Islamic Militant Attacks in Nigeria Spreads To Lagos," VOA, July 11, 2011.

scope of insurgent activity.[68]

Not Just in Nigeria—Expansion throughout the Lake Chad Basin

In 2015, Boko Haram deployed its first suicide bomber outside of Nigeria's borders. Since then, 22 suicide attacks have occurred in Cameroon, five in Chad, and three in Niger. The pattern of attacks outside of Nigeria is broadly similar in terms of targeting and lethality against Nigerian targets, with a slightly lower rate of civilian targeting.

Figure 2: Boko Haram Suicide Bombings by State/Province (April 2011-June 2017)



Attacks, including suicide bombings, on Lake Chad Basin countries are connected to the cooperation between Nigeria and the Multinational Joint Task Force (MNJTF). This relationship could undermine the strength of this partnership by raising the costs of participation. Governments in the region have already begun to distance themselves from the crisis. Cameroon, for example, has forcibly returned thousands of Nigerian refugees because of the burden that caring for them placed on local communities.[69] While suicide bombings are not directly connected to the regional food shortage—and in some areas, famine—Boko Haram's ability to destabilize trade routes and agricultural production threatens the food security of millions throughout the region.[70] Thus, indirectly, the success of Boko Haram's suicide-bombing campaign presents a regional security concern.

68 Hilary Matfess interview, anonymous defected insurgent, Abuja, Nigeria, 2017.

69 "UNHCR Concerned About Return Of Nigerian Refugees From Cameroon," United Nations High Commissioner for Refugees, 2017.

70 Imasuen Emmanuelar, "Insurgency and humanitarian crises in Northern Nigeria: The case of Boko Haram," *African Journal of Political Science and International Relations* 9:7 (2015): pp. 284-296.

Figure 3: Boko Haram Suicide Bombings by Country (April 2011-June 2017)

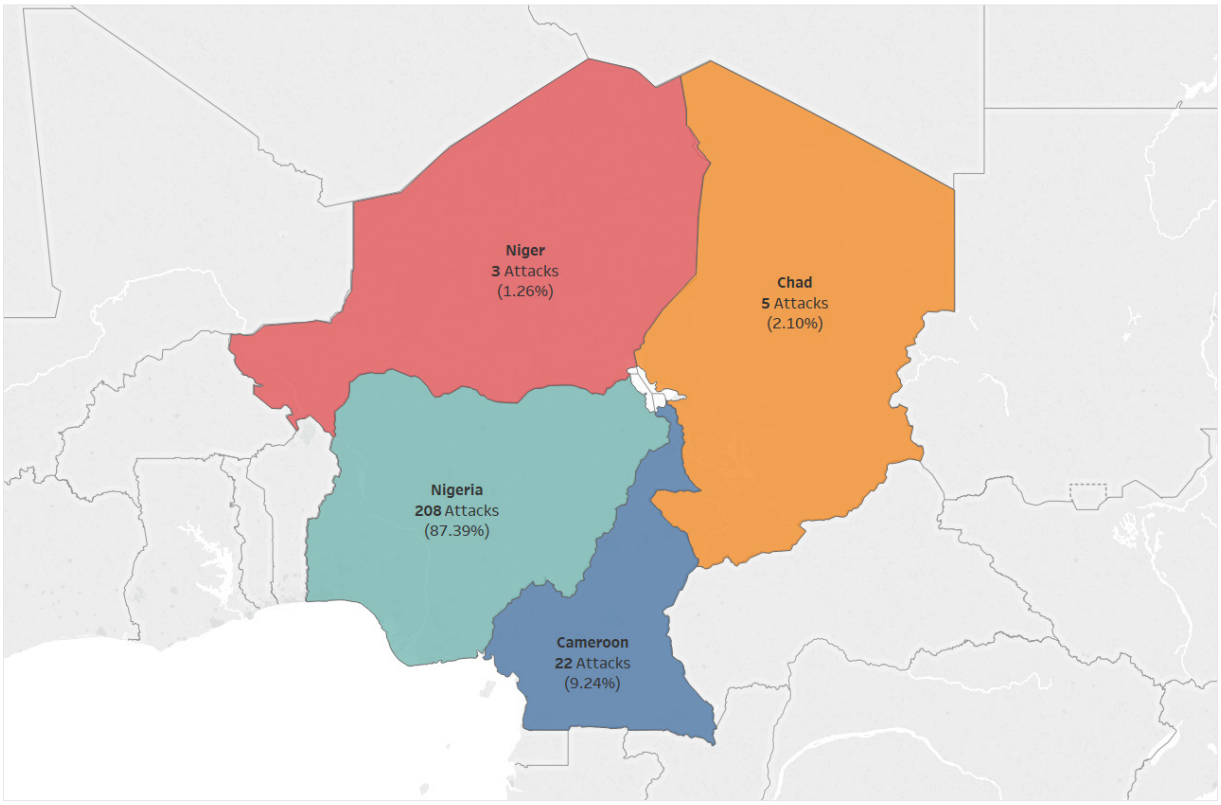
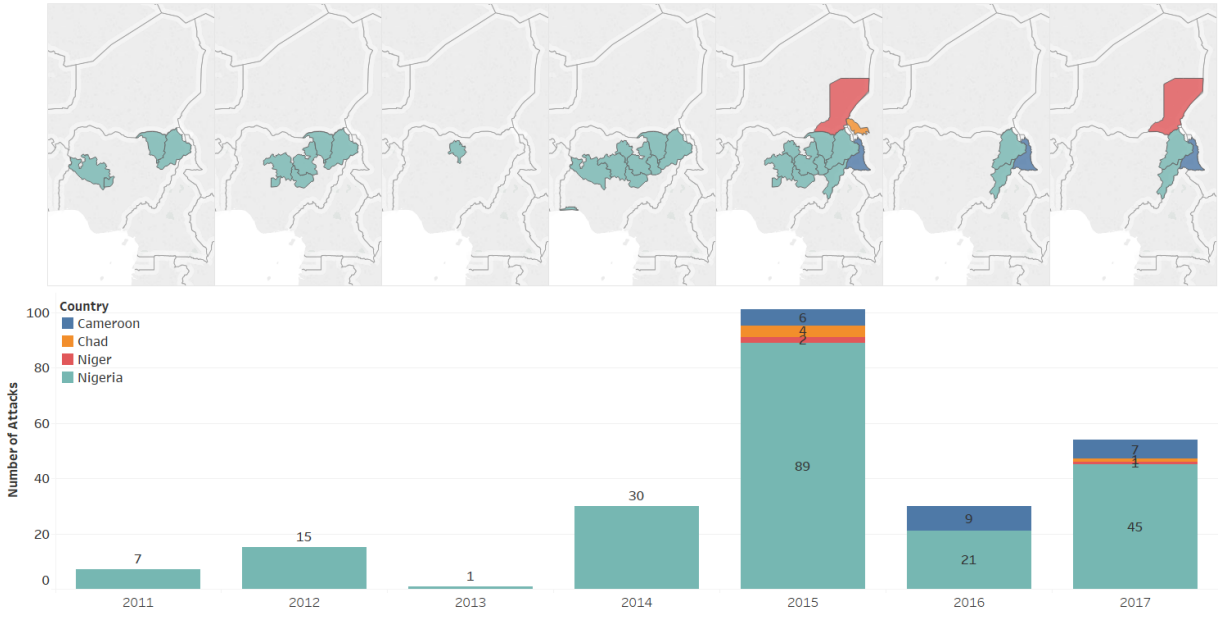


Figure 4: Expansion of Attacks Geographically over Time (April 2011-June 2017)



Little Impact Outside of the Lake Chad Basin

Importantly, despite the attacks outside of Nigeria's borders, Boko Haram is not a threat to U.S. territory nor to any non-African U.S. ally. The group has not engaged in any attacks outside of the Lake Chad Basin and, at present, its connection to the Islamic State remains largely rhetorical and symbolic, rather than logistical or financial. There is no evidence that Boko Haram has the capacity to attack U.S. soil (or even serious interest in doing so), and the group has not yet targeted American aid workers, officials, or military members in northeast Nigeria. Further, there is sparse evidence supporting the claims that the Islamic State and Boko Haram are engaged in joint strategic planning or training.

2.3: Targeting Trends of Boko Haram's Suicide Bombers

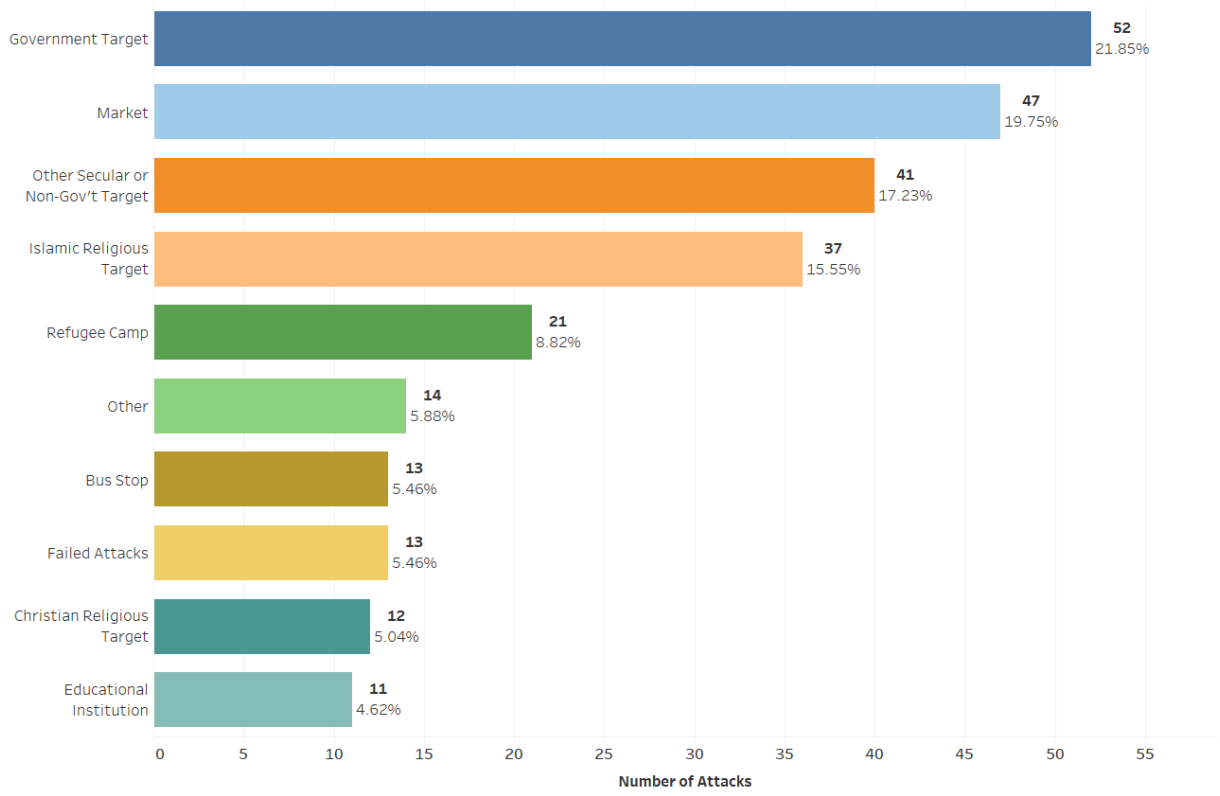
Our study also looked at which entities Boko Haram's suicide bombers target. We divided the potential targets into five categories: religious, government, civilian, educational, and not-specified. Within these, we further subdivided the religious targets into Christian and Muslim categories and civilian targets into market, bus stop, IDP camp, and other secular or non-governmental targets.

A Bird's Eye View of Boko Haram's Targeting Trends

When approaching Boko Haram's targeting trends, our data reveals that in order of descending targeting, the group's efforts included: 52 attacks on government targets (21.1% of total attacks); 47 attacks on markets (19% of total attacks); 41 attacks on various genres of secular non-government targets outside our delimited categories;[71] 37 attacks on Islamic religious targets (14.9% of total attacks); 21 attacks on refugee or IDP camps (7.4% of total attacks); 13 attacks on bus stops (5.3% of total attacks); 12 attacks on Christian religious targets (4.9% of total attacks); and 11 attacks on educational institutions (4.5% of total attacks). Thirteen detonations failed to reach a target at all. Further analysis of these trends is presented below.

71 Targets in the secular, non-government category included bars, stadiums, restaurants, brothels, and hotels.

Figure 5: Overall Boko Haram Suicide Bombing Count by Target (2011-2017)



A Focus on Civilian Targets, Not Ideological Targets

In broad strokes, an examination of our data on suicide bomber targeting trends reveals that despite espousing an anti-Christian and anti-educational ideology, Boko Haram's suicide attacks tend to place little focus on these entities, instead predominantly targeting innocent soft-civilian targets with no clear religious or political affiliation. Similarly, we illustrate that all of Boko Haram's largest attacks are not connected by any particular targeting trend; instead, they thrive on coupling suicide bombing with larger coordinated attacks.

Undoubtedly, civilian-centric areas (such as markets, bus stations, and IDP camps) were the most commonly identified targets of Boko Haram's suicide bombing, totaling 81 attacks in our dataset, or 32.8% of Boko Haram's targets.[72] Much of this pattern has been driven by the wave of suicide bombings since 2013 directed at secular, 'soft targets' (another way of describing civilian targets, in contrast to 'hard' military or government targets), rather than religious institutions or government institutions. This is a significant contrast to the 2011 pattern of bombings, which only targeted churches and the government. As Figure 5 illustrates, attacks on markets are the single most common manifestation of suicide bombings. Given that Boko Haram does not have an explicitly anti-commerce orientation, it would appear that the targets selected for suicide bombing reflect strategic aims of engendering shock and awe rather than ideological concerns of destroying forbidden institutions.

Typical of Boko Haram's attacks on civilians, on March 10, 2015, a teenage female suicide bomber detonated in a crowded market in Maiduguri, Borno State, near the Old Al-Kanemi Cinema. The blast claimed the lives of at least 34 civilians. The attack followed one that had occurred the previous day in

72 Note that for this project, the authors are counting attacks on IDP camps as targeting civilians, not the government. This classification leaves room for debate, as there is a significant security presence within and surrounding IDP camps.

the same market. There, two suicide bombers detonated explosives, killing 54 individuals.[73] Similarly, a teenage female suicide bomber attacked a crowded bus station located in the town of Damaturu, Yobe State, on May 16, 2015, killing herself and seven civilians. The victims of the attack were mostly women and children, many of whom sold smoked fish and water near the exit of Damaturu Central Motor Park. Thirty-three individuals were injured and treated at a local hospital. Neither the bus station nor the market was related to a religious or political institution.[74]

More Attacks on Muslim Targets Than Christian Targets

Despite the frequent characterization of the crisis in the northeast as motivated by religion, our data shows that Boko Haram does not primarily target religious institutions. Of the 247 suicide attack targets, just 49 were religious institutions, or 19.8% of total suicide attacks. Moreover, among Boko Haram's suicide bombing attacks on religious targets, Islamic religious institutions were targeted more frequently than Christian institutions. From April 2011 to May 2017, 12 churches were targeted (4.9% of all targets) as compared to 37 mosques and religious Islamic leaders (comprising 14.9% of targets).

While puzzling on its face, Boko Haram's targeting of other Muslims could be explained by its adoption of the al-wala' wa-l-bara', a "concept of exclusive loyalty ... to those whom they consider true Muslims, and complete disavowal ... of all others," under which those outside of Boko Haram are not 'true Muslims' worthy of protection, and indeed, capable of being targets of violence.[75] This trend not only debunks classifications of Boko Haram as a primarily anti-Christian group, but it also stands in stark contrast to Boko Haram's propaganda in which it casts itself as the vanguard and protector of Muslims in the north.

Boko Haram's violence against Muslims is well-represented by the events of May 31, 2015, in which 30 people were killed in a mosque in Maiduguri during afternoon prayers. The suicide bomber detonated outside of the mosque, claiming the lives of 17 people, including himself. Casualties included known traders from a nearby marketplace. The attack was followed by the launching of rocket-propelled grenades, aimed at the homes of civilians living near the mosque. Our data reveals that attacks on mosques have proven to produce more injuries than other attacks; this is perhaps not unexpected, given the high density of people during worship and that the buildings' confines make it difficult to flee.[76] Troublingly, even identifying a potential bomber in a mosque or place of worship cannot prevent casualties. On July 3, 2015, a 15-year-old suicide bomber blew herself up at a mosque in northeastern Nigeria while worshippers prepared for afternoon prayers. Uncomfortable with the girl's presence, given the recent attacks by female bombers, she was asked to leave. Her bomb was detonated as she was leaving; the attack claimed the lives of 12 others.[77]

Of the attacks on Christian targets, the July 5, 2015, attack on the Redeemed Christian Church of God in Potiskum, Yobe State, in which at least five people died, is notable. The attacker entered the church during services and was initially perceived to be a member of the congregation. The attack was suspected to be a response to an Islamic State directive to increase attacks during the Ramadan holiday.[78] Interestingly, Boko Haram's suicide bombers ceased attacking Christian religious institutions in 2014.

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73 "34 killed in explosion at market in northeastern Nigeria," *Siasat Daily*, March 10, 2015.

74 Haruna Umar Adamu, "Suicide bomb attack kills 8 at Nigerian bus station," *Washington Post*, May 17, 2015.

75 Thurston.

76 The most injurious attack took place on November 3, 2014, when a suicide bomber claimed his and 32 other civilians' lives during a Shiite religious procession held in Potiskum, Nigeria. The crowd was marking the festival ceremony of Ashura, which commemorates the anniversary death of the Prophet Muhammad's grandson, Hussein. The attacker was reported to have joined the worshippers before detonating. The attack was reported to have injured 119 individuals.

77 "Female suicide bomber kills 12 in Nigeria mosque," *Express Tribune*, July 3, 2015.

78 "Suicide bomber kills 5 in church," *Sun*, July 6, 2015.

In the demographic section of this report, we give more acute focus to the gendered differences in Boko Haram's targeting tendencies toward religious institutions.

Is "Boko" Really "Haram?" Indifference Toward Targeting Educational Institutions

Given the group's moniker 'Boko Haram,' which translates roughly to 'western education is forbidden,' one would anticipate an outstripped number of attacks on educational institutions.[79] However, Boko Haram only tallied 11 total suicide attacks on educational institutions, or 4.5% of its total targets.

One particularly lethal suicide bombing at a school took place on November 10, 2014. Dressed in a school uniform, a suicide bomber attacked during the morning weekly assembly at the Government Technical Science College in Potiskum, Yobe State, killing 48 students and injuring 79 more. Over 2,000 students had gathered in the school's hall. It is believed that the explosives were hidden in a rucksack.[80] Another suicide bombing at an educational institution paired suicide bombing with firearms. A suicide bomber attacked the College of Administration and Business Studies (CABS) in Potiskum on May 8, 2015, armed with explosives and an AK-47.[81] The bomber stormed the school in the morning, shooting in the air to ward off the school's security guards, and then detonated his explosives after running out of ammunition. Fourteen civilians were injured. Two other suspected accomplices were arrested in Potiskum and Nengere, Yobe State.

In 2017, the University of Maiduguri (UNIMAID) became a target for the insurgency, which launched six attempted suicide bombings on the campus between January 1 and June 30. These attacks are notable because of UNIMAID's reputation for security and for serving as a safe haven in the city during the turbulent crisis years. The first of these attacks was in May 2017, when two male bombers and one female bomber entered the campus and detonated, killing just one person other than themselves. It was reported that the female bomber was targeting a church on campus. The university was besieged twice more before the end of the month. The next bombing involved three young men, who were intercepted by security. One hastily detonated after his interception, while the two others retreated to a construction site before detonating. None of these three bombers killed anyone other than themselves. In the final May attack on the university, a male suicide bomber detonated prematurely, killing just himself.

Attacking the State

Of the 247 identified targets of Boko Haram suicide bombers, 52 involved government institutions, or 21.1% of all attacks. This is unsurprising, given that the group has declared war on the Nigerian state and has even threatened countries that have contributed to the Nigerian government's counterterrorism efforts. Boko Haram's government targets include military and police headquarters and roadblocks/checkpoints. Many of Boko Haram's suicide-bombing attempts occur toward well-fortified attacks on symbols of the government, including the Maimalari Barracks in Maiduguri, which houses British and American intelligence units, as well as the members of the Nigerian military.

An example of how Boko Haram has used suicide bombing to continue its assault on government targets was the June 15, 2015, attack on the Chadian National Police Academy in N'Djamena, Chad. Arriving on motorcycles, two of the suicide bombers blew themselves up in front of the academy, while another two bombers attacked the office of the police chief. At least 20 people were declared dead from

79 It should be noted that translationally, "boko" does not translate directly into "Western education," but instead, serves as shorthand for "ilimin boko," which referred to the genre of British education that was brought to Nigeria in 1903. See "Who, What, Why: Exactly What Does The Phrase Boko Haram Mean? – BBC News," BBC News, May 13, 2014.

80 "Carnage at Nigerian school as suicide bomber dressed as pupil kills 47," *Daily Telegraph*, November 11, 2014.

81 "Suicide Bomb Attack in Yobe," *Daily Trust*, May 9, 2015.

the attack.[82] Though Boko Haram has used suicide bombers to attack fortified targets, these attacks still reflect the group's degraded operational capacity in urban areas following the declaration of the state of emergency.

Beyond military and police stations, the most commonly attacked government symbol are checkpoints, perhaps a logical outgrowth of the fact that if a bomber is discovered at a checkpoint, he/she may detonate his/her explosive in light of an inability to reach the desired target. Similarly, checkpoints may be heavily targeted due to their sheer number throughout Maiduguri and along the roads feeding into the city, which are typically ill-protected. Many checkpoints are little more than a stretch of oil drum barricades that force cars to slow down to navigate them; a pile of sandbags; and a handful of police, soldiers, and vigilantes posted to examine passing vehicles. As Action on Armed Violence notes, "Boko Haram seem[s] to use small PBIEDs at checkpoints and police stations, preferring this method to suicide VBIEDs used by many other groups."[83]

Boko Haram's Evolution in Suicide Bombing Targeting over Time

Before concluding, a more longitudinal view of Boko Haram's suicide bombing targets over time bears a brief examination. As per the figures below, we can extract some salient insights regarding the group's outlook on suicide bombings. First, it bears noting at the inception of Boko Haram's use of suicide bombings in 2011 and 2012, the group did indeed focus its efforts on government targets and Christian targets, two of the main ideological targets (along with educational institutions) that it ostensibly opposes. Interestingly, post-2012, Boko Haram suicide bombers stopped attacking churches, save for one instance in 2014. Moreover, the year 2014 is notable as it relates to targeting, as it marked the first year that Boko Haram targeted educational institutions, as well as the beginning of its tendency to bear down its suicide efforts on civilian targets, especially markets. For its part, while 2015 is notable for the sheer number of attacks, it also marked the group's initiation of attacks on refugee and IDP camps, a trend that has continued to the present day.

82 "Dozens killed in suicide attack," *Vancouver Sun*, June 16, 2015.

83 Berntson and Eedle.

Figure 6: Boko Haram Suicide Bombings by Target per Year (April 2011-June 2017)

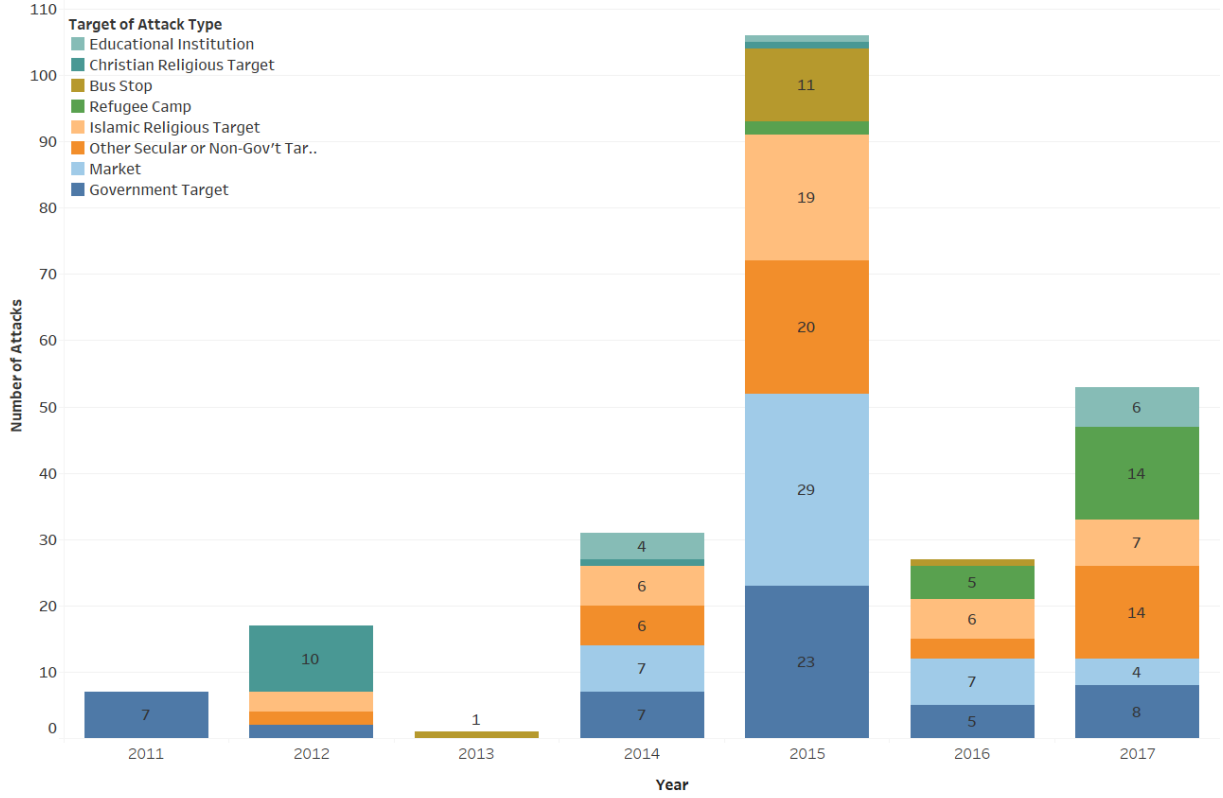
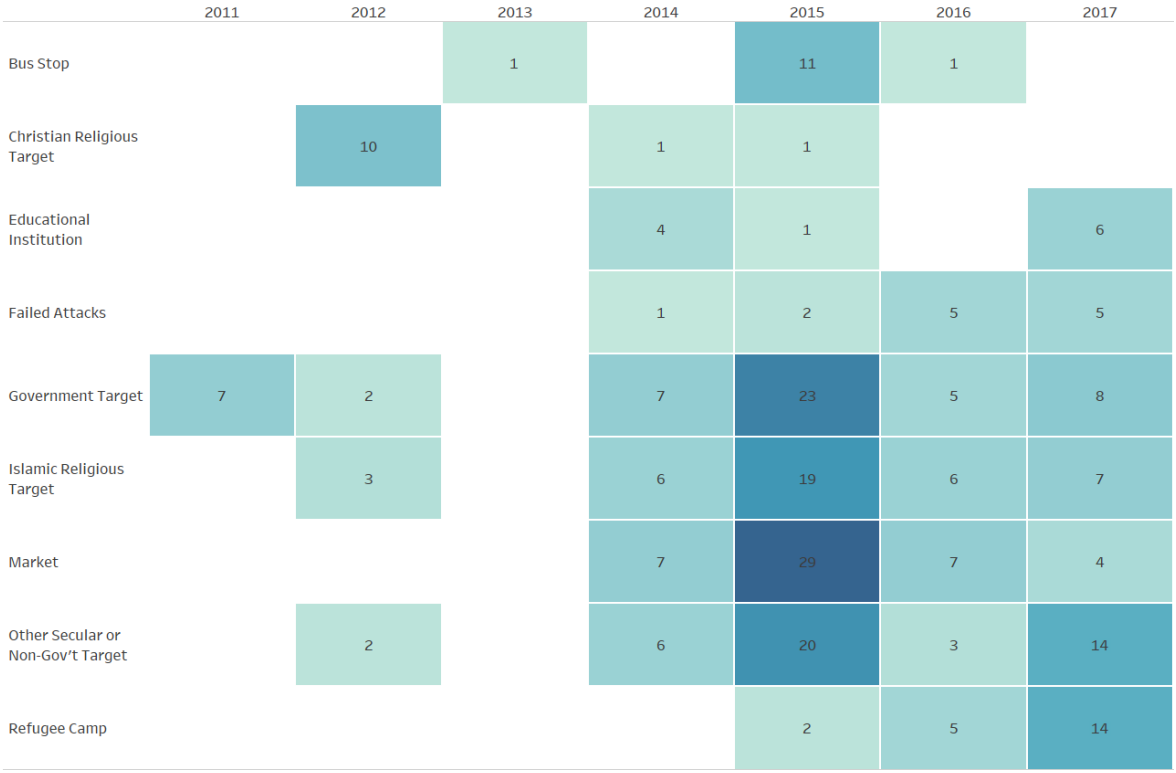


Figure 7: Boko Haram Suicide Bombers by Target and Year (April 2011-June 2017)

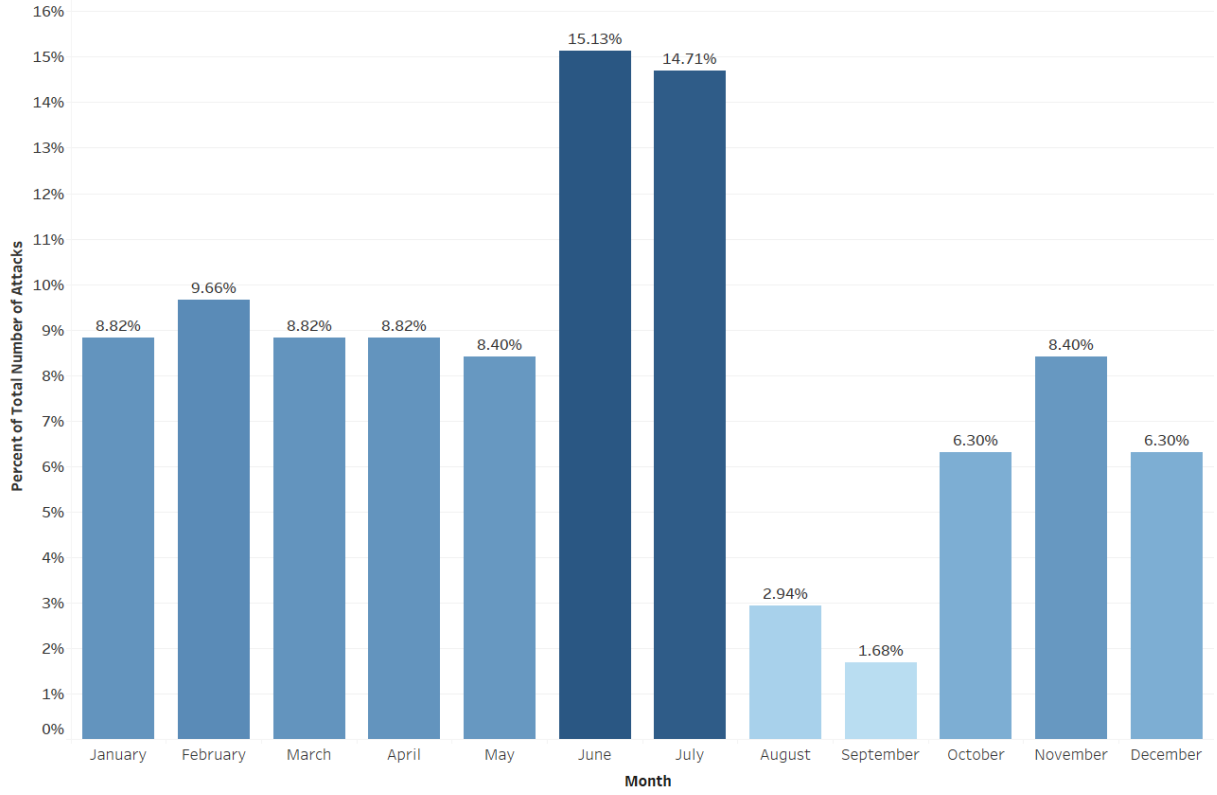


2.4: Additional Insights

Insights on Timing of Boko Haram's Suicide Attacks

Our data shows that Boko Haram's suicide bombing efforts have peaked in the months of June and July, typically around Ramadan during the 2011-2017 timeframe.[84] Interestingly, we also find that after a significant spike in July, Boko Haram's bombings over the seven-year period die down profoundly in August and September. We surmise that at least part of this trend is attributable to calls from the Islamic State to step up attacks during Ramadan, a directive that Boko Haram appears to have heeded after having pledged *bay `a* to the group in March 2015.[85]

Figure 8: Boko Haram Suicide Bombings per Month (April 2011-June 2017)

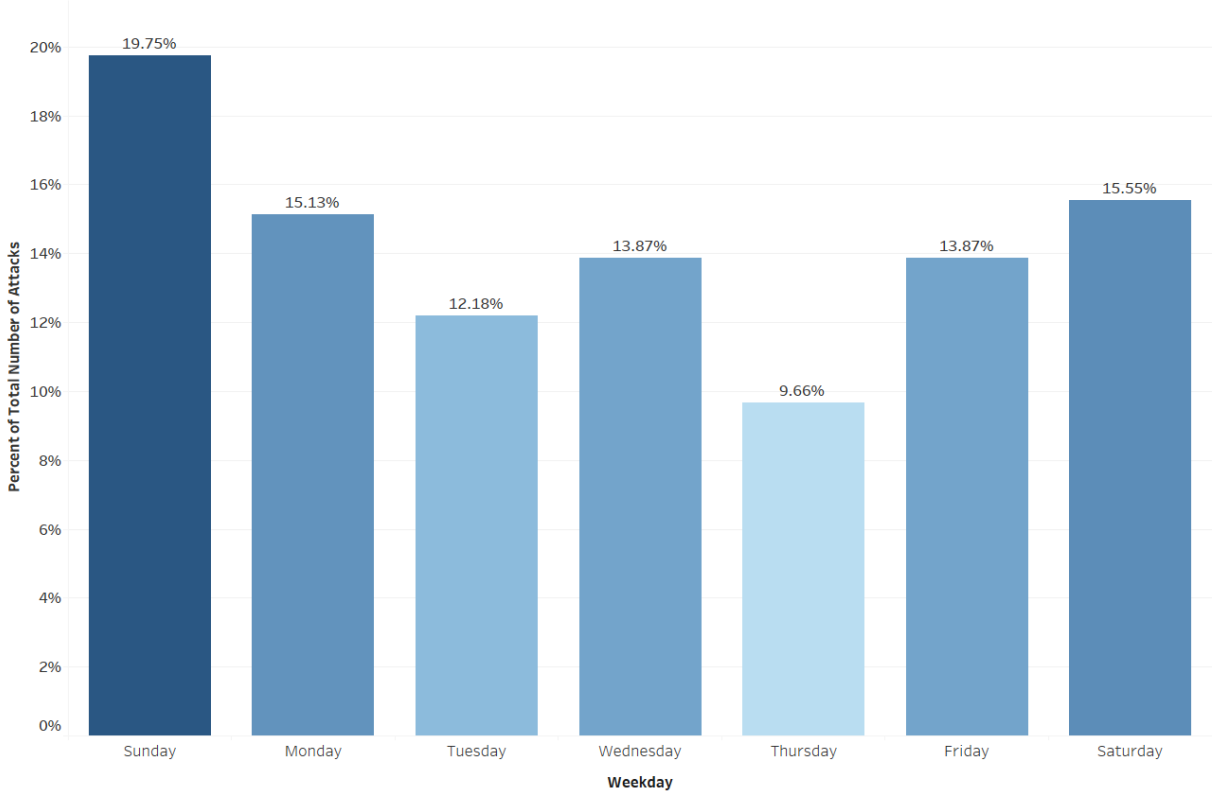


Moreover, our dataset also reveals that Boko Haram is most prone to conduct suicide bombings on Sundays. Though intuition might suggest that this is intended to target populations attending church services, our database reveals that Boko Haram has not targeted a church since 2015, prior to the point at which it became increasingly lethal. Indeed, rather than targeting Sunday church services, we surmise that the spike on Sundays is attributable to the fact that Sunday is a common market day in Nigeria, which could explain the increased efforts on that particular day.

84 A forthcoming paper from Ellen Chapin discusses how events like Ramadan (which has fallen in July in recent years) and market days (which are frequently held on Sundays) influence this pattern of attack.

85 Jason Warner, "Sub-Saharan Africa's Three 'New' Islamic State Affiliates," *CTC Sentinel* 10:1 (2017).

Figure 9: Boko Haram Suicide Bombings by Day of Week (April 2011-June 2017)



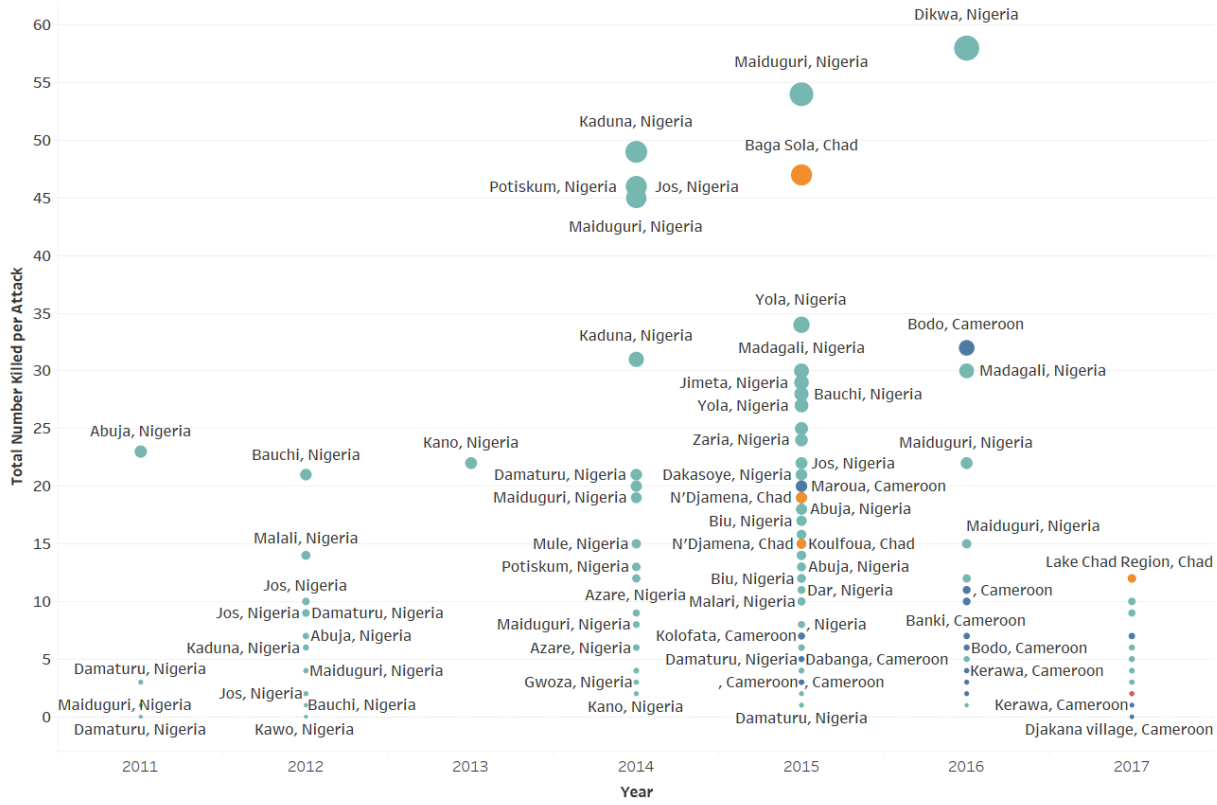
No Method to the Madness? Understanding Boko Haram's Deadliest Suicide Attacks

When Boko Haram does succeed in creating mass casualties, it does not appear to have done so in a patterned or ordered way. In analyzing the group's 10 deadliest suicide bombings, one observes that there are generally few trends that can be delineated when it comes to when, why, with whom, or how Boko Haram's largest suicide-bombing attacks occurred. Chronologically, the deadliest attacks spanned the entire period during which Boko Haram has been active in suicide bombing, 2011-2017. Males and females were responsible for a roughly similar number of the group's largest suicide bombings, and while adults were most commonly involved in the group's deadliest bombings, teens and even children were involved in some of Boko Haram's most lethal suicide attacks. The prevalence of non-singular linked or coordinated attacks (which will be discussed later) were both represented in the group's deadliest efforts.

Perhaps the only abiding (and indeed, unsurprising) trend is that geographically, Boko Haram's deadliest attacks most exclusively occurred in the insurgency's heartland of northeastern Nigeria. The two exceptions were an attack on a market in Northern Cameroon, killing 32 in 2016, and the bombing in Baga Sola, Chad, targeting an IDP camp and fish market in 2015. Arguably the most interesting insight is the heterogeneity of the targets of Boko Haram's 10 largest attacks, which included a refugee camp (#1 deadliest attack), a mosque (#2), an attempt on a governmental figure, President Buhari (#3), a market/refugee camp (#4), an educational institution (#5), markets (#6, #7, #8, #9), and a cleric at a mosque (#10). Furthermore, the group's pattern of suicide bombing reflects the insurgency's adaptive operational profile; either it has sought to engender a randomness in its largest attacks to maintain strategic advantage over the Nigerian government, or the lack of pattern stems from the general disorganization of the group's leadership. The latter seems more probable, as the deadliest attacks seem to reveal that Boko Haram tends not to view any one genre of target as particularly valuable,

and that instead, the lethality of its attacks is more determined by circumstantial phenomena unique to individual situations, rather than tangible efforts of planning large-scale, noteworthy attacks.[86] As such, mass casualties are inflicted when the group is able to rely on its full arsenal of potential violence, whether it be utilizing gunmen, conducting bombings, overrunning villages, holding territory, deploying suicide bombers, or perpetrating mass abductions.

Figure 10: Location of Deadliest Boko Haram Suicide Bomber Attacks (April 2011-June 2017)

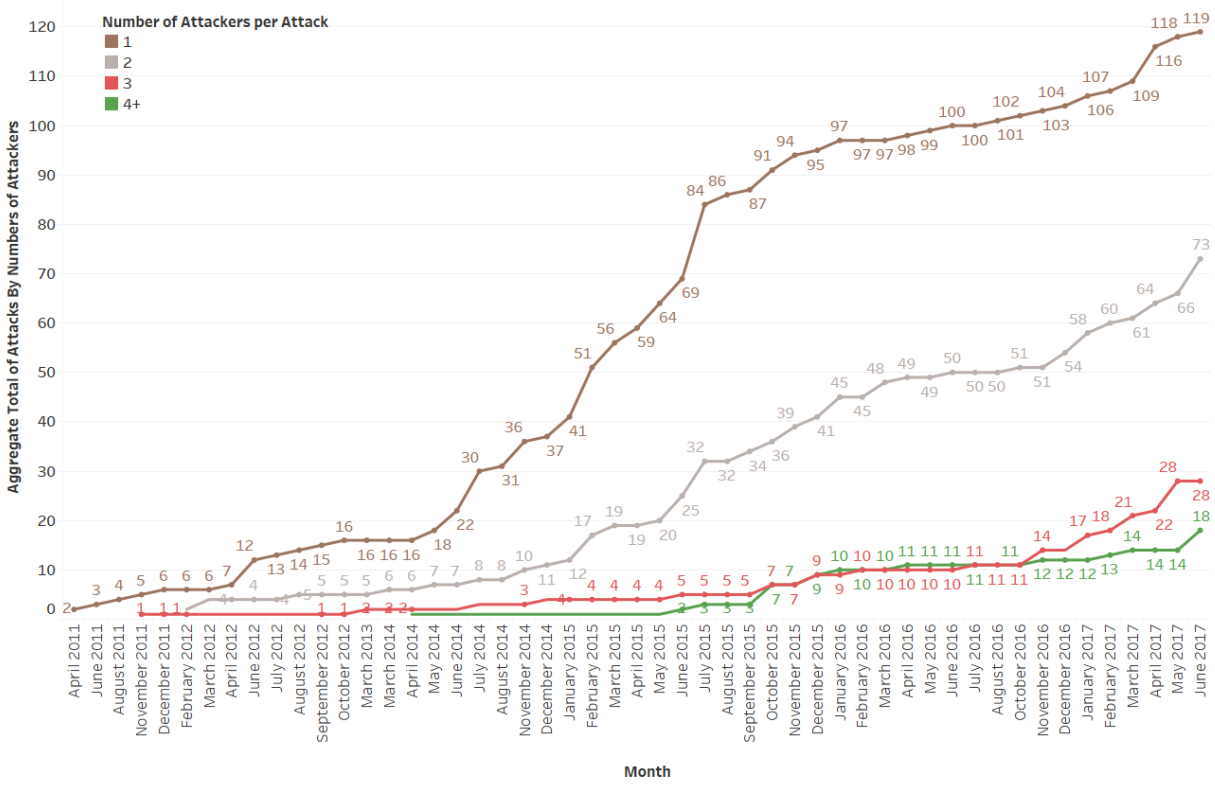


Strength in Numbers? The Rise of Linked Suicide-Bombing Attacks

A notable strategy within Boko Haram's use of suicide bombers is its proclivity to launch linked or coordinated bombings, in which more than one bomber detonates within a given geographic area within one day. In exactly 50% of suicide bombing attempts (119 of 238 total suicide attacks), bombers were sent in pairs (two bombers) or groups (three or more bombers) to engage in such attacks, the trends of which are charted below.

86 It is worth noting that this mirrors other aspects of the group's operational experimentation. The insurgency has relied on a range of different tactics, moving between using gunmen to IEDs to suicide bombers, to seeking territory, with seeming ease.

Figure 11: Boko Haram Suicide Bomber Attacks by Number of Attackers per Attack (April 2011-June 2017)



We find that linked attacks use primarily female bombers, though there are also instances of male partners accompanying female bombers, and occasionally some all-male linked teams. We also show a distinct rise in the use of women-linked suicide bombers, which began in July 2014—just two months after the Chibok kidnappings—and rose precipitously thereafter. There were also numerous instances in which the gender of the bomber was not denoted.

In the main, we find that Boko Haram likely uses paired suicide bombers to magnify the destructive and fear-inducing effects of suicide bombers, despite the frequency with which participants in linked bombings fail to detonate. Interviews from captured suicide bombers support the thesis that Boko Haram utilizes paired bombers to enforce detonation, with each serving as a commitment mechanism for the detonation of the other. The experience of a teenage girl named Amina from Madagali, Nigeria, who turned herself in to Nigerian authorities, sheds some light on this process. From her account, Amina had been kidnapped by Boko Haram, undergoing an indoctrination process before she and another teenage girl named Zainab were sent on their fatal assignment. The girls were given 200 naira ($0.64) and "were directed by Boko Haram to detonate our explosive anywhere we saw any form of gathering." Amina acknowledged the fear she felt about setting off the bomb that would take her life, but she said that, "I was scared so I told them that I could not detonate mine. So they said if Zainab detonates her own, it will serve the purpose. They said if we press the button, the bomb would explode and we will automatically go to heaven."[87]

It was also common for a younger girl to be a paired with older women to carry out suicide bombings. On July 17, 2015, a young girl and an elderly woman detonated their explosives in Damaturu, Nigeria.

87 "Boko Haram's last weapon," *Sun* (Nigeria), February 12, 2017.

Their target was a Muslim open-air praying area, where people had gathered for Eid al-Fitr. When counting the fatalities, army spokesman Colonel Sani Kukasheka Usman differentiated between the first and second explosions. He stated that "four persons died in the first explosion and 7 people injured … [w]hile five people lost their lives in the second explosion and 11 wounded." This differentiation is rare with paired suicide bombings, as most times the fatalities are reported as one sum.[88]

Another potential explanation for the use of paired or grouped bombers is the tactical advantage of staggered bombings. In some instances, the second bomber only deploys after a crowd has gathered to examine the damage inflicted by the first bomber.[89] An example of a staggered attack is well represented by the events of November 25, 2014. Two teenage female suicide bombers detonated in a crowded market in Maiduguri. The first bomber detonated, killing three civilians and herself. The second bomber followed thereafter, killing 30 others. Reports indicated that the second bomber detonated only after a crowd had gathered around the scene of the initial blast to help the injured.[90]

In closing, it should be noted the explanations are not mutually exclusive. Given that the evidence suggests that Boko Haram is using a mixture of suicide bombers and PBIEDs, it could also be that grouping bombers can be both an enforcement mechanism and a tactic to inflict more casualties. However, as the next section will highlight, the latter explanation is not borne out in reality.

2.5: Understanding Boko Haram's Relative Ineffectiveness at Suicide Bombing

As will be recalled from Section 2.2, Boko Haram is significantly worse at suicide bombing when compared to other groups that use the tactic, if efficacy is defined as kills per attack. Given that it kills fewer people per attack than three global estimates for other groups, what factors then account for Boko Haram's underperformance in lethality relative to the global average of groups deploying suicide bombers? Several superficial reasons can be proffered. First, Boko Haram's bombers are often unfamiliar with the areas they are bombing. According to an anonymous former member of the group who defected and is now working with the Nigerian government, when Boko Haram bombers are sent to areas with which they are unfamiliar, they often detonate in front of the first group of people they see, regardless of how many fatalities they exact.[91] A second explanation lies in the fact that not all Boko Haram suicide bombers are sent to densely populated areas. For instance, the group has deployed suicide bombers as assassins, which are inherently not intended to kill great numbers of people, but rather, specific individuals. Third, given Boko Haram's tendency to use very young and—likely, given the characteristics of the region—under-educated bombers, insights from Benmelech and Berrebi[92] reveal that the lower the quality of "human capital," the fewer deaths that an individual is likely to cause. Beyond these, we explain four more phenomena in greater detail below.

A Poor Use of Coordinated Bombings

Importantly, we find that despite the increasing use of linked attacks that employ more than one suicide bomber, the tactic is highly ineffective: whereas lone Boko Haram suicide bombers kill an average of 8.5 per individual bomber, Boko Haram members participating in coordinated or linked suicide bombings only kill an average of 2.9 persons per individual bomber. In short, our findings reveal that

88 Sam Webb, "Nigeria bombing: 'Girl, 10, and elderly woman in suicide attack' that killed 13 Muslims as they prayed," *Irish Mirror*, July 17, 2015.

89 Michael Holtz, "Teen Girl Suicide Bombers Kill 30 In Nigeria, Boko Haram Suspected (+Video)," *Christian Science Monitor*, November 25, 2014.

90 Ibid.

91 Hilary Matfess interview, anonymous defected insurgent, Abuja, Nigeria, 2017.

92 Benmelech and Berrebi.

it is precisely the group's use of ineffective, linked suicide bombings that brings down Boko Haram's average lethality ratio to 4.5 individuals per bomber, falling well below global terrorist suicide bombing standards. Indeed, if we exclude linked bombers, Boko Haram would be close to average in efficacy of lethality.

Detonations and No-Kills

Our data reveals that oftentimes, Boko Haram deploys suicide bombings who fail to kill anyone but the bomber him or herself, a phenomenon that occurred in 55 instances, or 22.9% of overall detonations. Examples of detonation without any fatalities often arose from confrontational situations between soldiers and would-be suicide bombers, where the nervous bomber detonates from fear of apprehension. On January 31, 2017, a 10-year-old girl attempted to enter an IDP camp while wearing a suicide vest beneath her hijab. When confronted by soldiers outside of the camp, she detonated the explosives, killing only herself.[93] In another example, eight suicide bombers in a minibus attempted to gain entrance to Maiduguri, Nigeria, on November 1, 2016. Soldiers stopped the vehicle and insisted on searching it. At that point, the suicide bombers detonated their explosives. The blast was contained by the minibus, which seemed to have only been carrying the bombers.[94]

The Causes of Non-Detonations

Apart from instances in which bombers detonate and tally no kills, there are also numerous instances in which bombers failed to detonate at all, either because of technical failure of the bomb itself; the bomber's decision to surrender to authorities; or the bomber's arrest by police, military, or vigilantes. Of the 434 total attempted detonations by bombers, 85 did not detonate their explosives, a failure rate of 19.6%. If we combine the non-detonations with the detonations and no kills, we find that 32.3% of Boko Haram's attempted suicide attacks fail kill only the bomber or no one at all.

First, we find rare instances in which Boko Haram's suicide bombers intend to detonate but do not do so because of a technical problem in the IED itself, sometimes leaving potential suicide bombers vulnerable to their would-be victims. On December 26, 2016, a teenage girl attempted to explode in the Kasuwan Shanu market in Maiduguri, Nigeria. While her partner successfully detonated her explosives, her own explosives did not go off. The market crowd proceeded to lynch the teenager after this technical failure.[95] However, it is not just a suicide bomber's explosives that can fail and ruin a mission. In one instance on May 21, 2016, Boko Haram operatives were driving a kidnapped woman who was wearing explosives to Kano market in Maiduguri, Nigeria, when the vehicle malfunctioned on the way to the destination. When the operatives attempted to move the woman, she managed to escape and reach safety.[96]

Second, Boko Haram's would-be suicide bombers sometimes do not detonate because they actively self-surrender to authorities. This tendency of non-detonation for purposes of self-surrender is seen acutely in the case of women and children, and less often among adult men. As other research has shown, sometimes members of terrorist groups—especially those coerced into membership—view volunteering to become a suicide bombers as a means of escaping the group. Once vests are strapped on, unwilling bombers (assuming the bombers themselves control the detonation devices) are able to

93 "10-year-old would-be suicide bomber dies in Nigeria," *Daily Nation*, February 1, 2017.

94 "Caught in the Crossfire: What Future for Women and Children in Nigeria's Forgotten Crisis," US Official News, February 6, 2017.

95 "Female 'Boko Haram' suicide bomber lynched by angry mob after failing to detonate explosive vest in busy marketplace," *Irish Mirror*, December 26, 2016.

96 "Boko Haram: Suicide bomb attack on Kano market aborted," *Sun* (Nigeria), May 23, 2016.

surrender to authorities to escape death or prosecution.[97]

Numerous cases exist in which female bombers surrendered themselves to the authorities, casting off their explosive vests willingly. For example, on December 10, 2014, a 13-year old girl, whose father had given her to Boko Haram against her wishes so that she could serve as a suicide bomber for the extremist group, was arrested in Kano, Nigeria, after choosing not to detonate her explosives.[98] In other cases, in lieu of detonation, girls have announced to vigilantes or police officers that they are wearing a bomb and that they do not want to be suicide bombers, surrendering to the security sector. In May 2017, for example, a group of girls who refused to detonate told The Guardian: "We stopped. We shouted: 'We're carrying bombs, we were forced to,' and we lifted up our veils and showed them the belts."[99] These instances further the notion that while some women may volunteer to be suicide bombers, Boko Haram is also deploying unwilling women and children as HumBIEDs.[100]

Third, while some bombers turn themselves over to the security sector, the majority of Boko Haram's undetonated bombers are arrested or neutralized by members of the security sectors rather than surrendering of their own accord. Though much of the literature on female suicide bombers suggests that women are less likely to be considered potential threats in public places, 29 of the undetonated female suicide bombers were shot by members of the security sector and an additional two were arrested by vigilantes. This could be, in part, because hijabs and other coverings are common in northern Nigeria, so women are also able to more easily conceal weapons. Interestingly, while three undetonated female suicide bomber ran away, 17 undetonated female suicide bombers were arrested.

Fourth, many non-detonations of would-be suicide bombers occur when vigilantes step in to avert bombings. Most notable in this regard are members of the Civilian Joint Task Force (CJTF), a state-sponsored vigilante group in Borno State that has reported receiving training on bomb defusing due to the frequency with which they confront explosives (including suicide bombers) while on patrol themselves or assisting the Joint Task Force's operations.[101]

Various examples underline the role of members of the CJTF vigilantes. In one instance, two girls were arrested by vigilantes in the far north of Cameroon over Easter weekend of 2016, ostensibly on their way to a gathering intended for targeting. Each girl was carrying 12 kilograms of explosives.[102] In another instance, a man carrying explosives was confronted when trying to board a full bus at Biu motor park in Nigeria on April 5, 2016. When vigilante youth guards realized he had a bomb, he was promptly beaten up and transported to the military barracks where he was arrested.[103] Members of vigilante groups such as the CJTF put their lives at risk confronting suspected suicide bombers in order to protect their communities. Such a case occurred at a mosque in Maiduguri, Nigeria on January 17, 2017. A member of a youth vigilante group approached a male suicide bomber who then detonated his explosives in order to avoid apprehension. The youth lost his life along with the suicide bomber but prevented an attack on the targeted mosque.[104] A CJTF member was also active in preventing an attack

97 John G. Horgan, Max Taylor, Mia Bloom, and Charlie Winter, "From Cubs to Lions: A Six Stage Model of Child Socialization into the Islamic State," *Studies in Conflict & Terrorism* 40:7 (2016): pp. 1-20.

98 "Girl 'Given as a Bomber,'" *Herald Sun*, December 26, 2014.

99 Ruth Maclean, "Dressed For Death: The Women Boko Haram Sent To Blow Themselves Up," *Guardian*, May 5 2017.

100 "'Girls volunteer to be suicide bombers for a chance to live,'" *Evening Standard*, April 13, 2016.

101 The CJTF and other vigilante groups are responsible for some of the only proactive (though problematic) measures to defend against suicide bombing. According to a number of residents of Maiduguri, the CJTF has imposed an unofficial curfew on women—reports generally suggested that the curfew was from 7pm to 7am—in an attempt to curb attacks by female suicide bombers. In a market in Yola, Adamawa State, in December 2015, a vigilante was posted at a 'choke point' with a metal detector wand. However, given that the vigilante was male (and thus could not search women) and that the wand was non-functioning, it is clear that this response is likely simply security theater. Hilary Matfess fieldwork interviews, Maiduguri, Nigeria, 2017.

102 "Would-be bomber was one of Chibok girls," *Sunday Nation*, March 27, 2016.

103 Kareem Haruna, "Nigeria: Two Suicide Bombers Intercepted in Biu," AllAfrica, April 6, 2015.

104 "JTF Foils Attack on Mosque in Maiduguri," *This Day*, January 17, 2017.

on a mosque on June 27, 2016. A pair of suicide bombers attempted to gain entrance to the mosque but were denied by the vigilante. Both bombers detonated outside of the mosque, only managing to injure the vigilante.[105]

PART 3: BOKO HARAM'S DEMOGRAPHIC PROFILE IN SUICIDE BOMBING

While the previous section highlighted the operational dimensions—the *where*, *when*, *why*, and *how*—of Boko Haram's suicide bombing efforts, this section turns its attention to *who* is deployed as a bomber.

Before delving into the demographic makeup of Boko Haram's suicide bombers, however, it is necessary to paint a picture about the demographic contours of other terrorist groups' suicide bombers. Beginning in the 1990s, studies suggested that as a demographic, suicide bombers were rightly characterized as "uneducated, unemployed, socially isolated single men in their late teens and early 20s."[106] And leveraging a cross-group study of suicide bombers from Hezbollah, Palestine, and Muslim adolescents during Gaza's first Intifada, Hassan suggested that, as of 2008, the average suicide bomber was approximately 25 years of age, male, single, and childless.[107] Yet contemporarily, others have argued that, to the contrary, suicide bombers do not fit a uniform or monolithic profile.[108]

Our data shows that, indeed, the profile of the modal Boko Haram suicide bomber is profoundly unique, especially in comparison to studies that have been done on other terrorist groups. In the case of Boko Haram, the average suicide bomber is a female who deploys as part of a coordinated attack with other females and targets a civilian space. Indeed, in overtly colorful language, Boko Haram has 'exploded stereotypes' about the demographic profiles of suicide bombers, especially via its use of women and children, both of which will be discussed subsequently.

3.1: Ironic Gender Equality: The Use of Female Suicide Bombers

While this section elucidates the role of women in Boko Haram's suicide campaign, we first investigate the broader question of why groups—though few and far between—have elected to use women suicide bombers at all. In her seminal study on the unique characteristics of female suicide bombers, O'Rourke has concluded that the adoption of this tactic was the result of "an interface between the terrorist organizations' strategic motives and the individual motivations of female attackers."[109] Boko Haram's female suicide bombers, then, are a reflection of both recruitment by the insurgency leadership as well as a female social base willing to tolerate (and perpetrate) these attacks. On the 'demand' side of this equation, Boko Haram seems to have especially benefitted from female suicide bombers in light of the increased security presence as a result of the state of emergency.[110] What may have prompted more women to volunteer for (bearing in mind that many are conscripted into) these attacks, on the 'supply' side, remains unclear.[111]

A sociological rationale underlies the employment of women as suicide bombers. They are often

105 "Would-be suicide bombers target mosque in Nigeria," AFP, June 28, 2016.

106 Pape, *Dying to Win*, summarizing Merari (1990) and Post (1990), p. 2.

107 Riaz Hassan.

108 Nichole Argo, "Human bombs: Rethinking religion and terror," MIT Center for International Studies Audit of the Conventional Wisdom (2006): pp. 6-7.

109 Lindsey A. O'Rourke, "What's special about female suicide terrorism?" *Security Studies* 18:4 (2009): pp. 681-718.

110 A similar pattern can be seen in Palestine, where female suicide bombers emerged in 2002 when increased Israeli security made it difficult for young men to pass through checkpoints.

111 Speckhard and Ahkmedova.

viewed as being inherently innocent or non-threatening, thus arouse less suspicion than men. Particularly efficacious are young girls (whose role will be discussed later) and pregnant women, with the former rarely considered capable of presenting a security threat and the latter often assumed by societies around the world to be "beyond suspicion or reproach."[112] Furthermore, females are especially effective as it would be socially unacceptable for a man to conduct a 'body search' of a woman. Given the paucity of women in the Nigerian security sector, this inability for searches creates a significant and dangerous security gap.

From a rational perspective, deploying women suicide bombers is a logical and economically sound tactic. According to Speckhard, not only are women more likely to avoid detection, it is the case that because women rarely serve in senior leadership roles within insurgencies, "from the group's point of view, they are more expendable for suicide bombers."[113] An anonymous defected insurgent concurred, noting that women "are cheap and they are angry for the most part ... using women allows you to save your men."[114] Women also serve as a similarly cheap labor force. Interviews conducted with undetonated female suicide bombers reveal that Boko Haram offers money to the women that volunteer to be suicide bombers. A report by *Vanguard* found that girls were paid as little as 200 naira (about 64 cents) to buy themselves food before being used as bombers.[115] It remains unclear if these girls' families were paid for their participation as suicide bombers or what happens to their payment after detonation if it is unused. The extreme economic hardship that many women in the region face as a result of the humanitarian crisis—acutely felt among women without husbands—could incentivize many to accept such a clearly imbalanced proposition.

Boko Haram has also recognized the aesthetic benefits conferred by deploying women as suicide bombers. Bombs are easy to conceal under the billowy folds of women's conservative clothing and the ability of women's clothing to conceal explosive belts has been leveraged by dressing up men in women's clothing, a phenomenon that will be detailed subsequently. Furthermore, female bombers have used handbags and even infant children carried on their backs to obscure the visibility of IEDs.

Boko Haram has several means by which to recruit its members, but it faces fewer obstacles when recruiting women. In some cases, women are an automatic addition to the group; marriage-based membership appears to be the most common way for women to enter into the insurgency.[116] However, women are also more susceptible to both structural and physical violence by male insurgents. A number of female suicide bombers are not given a choice about their deployment on suicide missions; but in many instances, a woman's choice is not between suicide bombing and life, but rather between suicide bombing and violence and harassment. Boko Haram has also coerced women into being bombers, both through promises of salvation and being reunited with their families.[117] Some report that they are threatened with being killed or having their family members killed if they refuse to be a suicide bomber.[118]

An Unprecedented Total Number of Female Suicide Bombers

Of the 434 total number of Boko Haram's suicide bombers, 244 of the bombers are identified as fe-

112 Bloom, "Female Suicide Bombers: A Global Trend."

113 Speckhard, "The Emergence of Female Suicide Terrorists," *Studies in Conflict & Terrorism* 31:11 (2008): pp. 995-1,023.

114 Hilary Matfess interview, anonymous defected insurgent, Abuja, Nigeria, 2017.

115 "Boko Haram Gave Me N200 To Detonate Explosive, Says Suicide Bomber," *Vanguard News*, February 8, 2017.

116 This can happen through two channels. The first is when women who are already married join with their husbands. This can be a coerced decision or one made with mutual enthusiasm. The second way in which women join Boko Haram through marriage is by becoming an insurgent's wife. Again, this can be a voluntary or coerced partnership.

117 Dionne Searcy, "Boko Haram Turns Female Captives Into Terrorists," *New York Times*, April 8, 2016.

118 "Kano Blasts: Twin Bombs In Nigeria Market 'Kill 11,'" BBC News, November 18, 2015.

male—a rate of at least 56% of bombers in total and 72.2% of bombers with an identified gender. This representation is markedly above the average gender distribution of suicide bombings by insurgencies, particularly among other Islamic groups. Taken holistically, this suggests that Boko Haram is an insurgency with significant female membership (both coerced and voluntary), an operational context that favors the use of women, and a leadership team willing to subvert norms related to women in combat.

Of all outcomes of this study, perhaps the most important is Boko Haram's unprecedented use of female suicide bombers.[119] Having deployed 244 women suicide bombers between April 2011 and June 2017, Boko Haram has now used more female suicide bombers than any other insurgency in history, surpassing the record established by the Tamil Tigers, who used 44 female suicide bombers over 10 years.[120]

Boko Haram did not begin to use women as suicide bombers until 2014, three years after its first suicide bombing. What underlies this relative delay in the employment of female suicide bombers? Aside from the obvious departure from the gender roles prescribed by conservative Islamic theology, one answer could simply be that the use of women suicide bombers had not materialized as offering any perceived strategic utility over alternatives. The turning point at which it was recognized that women suicide bombers might offer distinct advantages over males likely came with the April 2014 kidnappings of the so-called "Chibok Girls," and the evident salience that gender (and youth) played in eliciting shock and awe in both the local and international community. The Chibok abductions gave Boko Haram, perhaps for the first time, a truly global prominence. Thus, 2014 stands out as a pivotal year for Boko Haram and its use of suicide bombers. Not only was the year the first time a female suicide bomber was deployed, but in that year, women constituted more than half of bombers (among bombers with identified genders). Over time, the threat from female suicide bombers has become so pervasive that, according to residents of Maiduguri, the CJTF has at times instituted an "unofficial curfew" for women, preventing them from moving freely within the city between 7pm and 7am.[121] However, this does not prevent women from engaging in attacks, especially since women bombings have generally been at crowded places, often during busy times that are not particularly affected by the curfew.[122] Similarly, some bus drivers have become reluctant to pick up female passengers at all.

In addition to the sheer number of women used as suicide bombers, Boko Haram has also used a greater number of women as a percentage of its total suicide bombers than any other groups in history. Overall, 56.2% of bombers were identified as female, though the proportion of bombers that are female appears to be on the rise. Between January 1 and June 30 of 2017, a shocking 64.5% of the bombers with a gender marker were female. Compared to the global average for women suicide bombers—which Bloom[123] has estimated to be around 15% of most groups' workforce for groups that employed them between 1985 and 2006—speaks to the degree of innovation toward gender that Boko Haram has brought to the practice of suicide bombing. Furthermore, it appears that Boko Haram's reliance on

119 It appears that female bombers are more likely than male bombers to have an age estimate reported; 104 of the female bombers in our dataset were given an age or age estimate by the media, as opposed to just 30 of the men. Though the gross numbers of youngest girl-bombers reported are much higher than boy-bombers (23 and five, respectively), the distribution of child, teen, and adult bombers by sex are remarkably similar. Consider that among male identified bombers with an age estimate, 16.7% are children, 36.7% are teenagers, and 46.7% are adults; among female bombers with an age estimate, 22.1% are children, 40.4% are teenagers, and 37.5% are adults. From this, we can conclude that despite some of the breathless reporting about Boko Haram deploying girls as suicide bombers, it is clear that boys are also being abused in such a fashion. Advocacy should thus frame the issue as a threat to children, gender nonspecific, to be as accurate and effective as possible.

120 Mia Bloom and Hilary Matfess, "Women as Symbols and Swords in Boko Haram's Terror," *Prism: a Journal of the Center for Complex Operations* 6:1 (2016): p. 104.

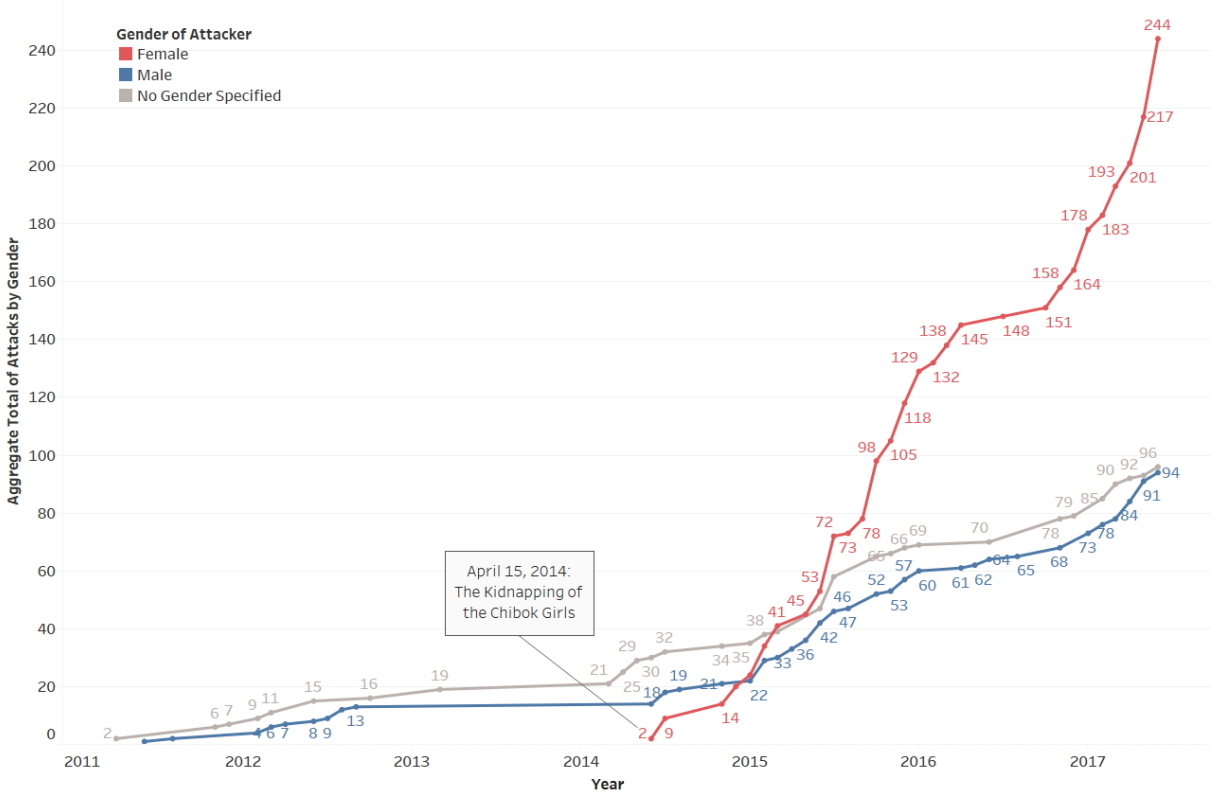
121 Hilary Matfess fieldwork interviews, Maiduguri, Nigeria, 2017.

122 This is especially challenging if some of the bombers do not know that they are carrying explosives and are detonated remotely. It is worth debating whether these women can rightly be considered 'suicide' bombers, given their lack of agency, or if a new term should be adopted to describe such attacks.

123 Bloom, "Female Suicide Bombers: A Global Trend."

female suicide bombers may be a result of shifting attitudes within the salafi-jihadi global community, as well as a driver of that attitudinal change. A number of Muslim clergy have given statements or issued *fatwas* that allude to support or at least ambivalence toward the use of female suicide bombers. In 2001, the High Islamic Council in Saudi Arabia encouraged Palestinian women to engage in suicide bombing in a *fatwa*, while other religious authorities have argued that women can participate in the operational side of jihad (including suicide bombings) under especially dire conditions.[124] In recent years, the rise of the Islamic State and al-Zarqawi's "intense and unusual tactics" have led to a proliferation of female suicide bombers.[125]

Figure 12: Boko Haram Suicide Bomber Attacks by Gender (April 2011-June 2017)



To be sure, while we make the point that Boko Haram has used more women suicide bombers than any other terrorist group in history, it is far from the first group to use women as bombers at all. The first female suicide bomber, Sana'a Mehaydali, blew herself up in 1985 near an Israeli convoy in Lebanon. Since then, the practice of using women has come to pass in insurgencies including the Palestinian Liberation Front, the Tamil Tigers, and among Chechen rebels.[126] Rarely, the Islamic State has employed female suicide bombers. According to Bloom, by 2003, of the 17 groups that use suicide bombing as a tactic, women have been used as bombers by approximately half of these organizations.[127]

124 Debra D. Zedalis, *Female Suicide Bombers* (The Minerva Group, 2004).

125 Hillary Peladeau, "'Support for sisters please': Comparing the Online Roles of al-Qaeda Women and their Islamic State Counterparts," University of Western Ontario, 2016.

126 Bloom, "Female Suicide Bombers: A Global Trend." Chechens rebels valorized women's role in suicide bombings to the extent that it operated a women's only suicide bombing group called the "Black Widows," while women bombers in the Tamil Tigers ascended to the elite ranks of the groups.

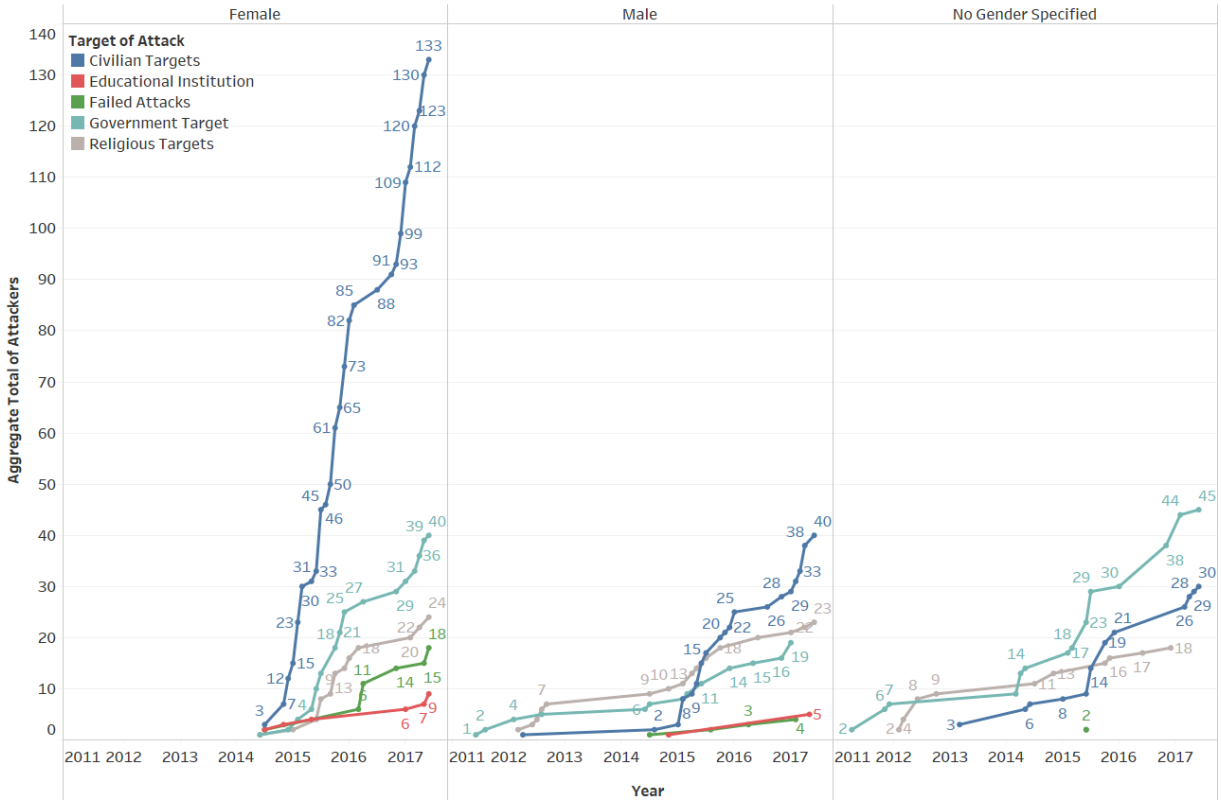
127 Ibid.

Differences in Targeting by Gender: Women's Focus on Civilian Targets, Men's Focus Elsewhere

There is a clear pattern of gender-differentiated targeting among Boko Haram's suicide bombings. A few points bear bringing to light regarding the different ways that male and female Boko Haram suicide bombers choose their targets. First, while one-third of attacks on Christian institutions were by bombers who were identified as male, our data does shows that only one female-identified suicide bomber was reported to have attacked such an institution.

Second, of the 77 targets for male bombers, only four were on IDP camps (5.2%), unlike women's efforts (over 10% of female bombers' 110 targets). Third, and most importantly, our data shows that women are most frequently sent to civilian targets. Over 25% of targets struck by women were markets; an additional 27.8% were sent to bus stations, educational institutions, and other secular non-governmental targets. By comparison, men targeted markets only 11.7% of the time and were disproportionately more likely to target Islamic institutions. This pattern of female targeting of civilian institutions may reflect the lower levels of screening that women face (relative to their young male counterparts) in these sorts of areas. Similarly, the role of women in Boko Haram's understanding of Islam may reflect women's relative non-use in the arena of Islamic targets. The trends toward civilian targeting and Boko Haram's use of female suicide bombers are strongly linked, given that both increased following the international community's outcry to the kidnapping of the Chibok Girls.

Figure 13: Boko Haram Suicide Attacks by Gender per Target (April 2011-June 2017)



Having addressed the gendered patterns of suicide bomber targeting, the issue of efficacy of detonated bombers remains. In short, when Boko Haram suicide bombers successfully detonate, there appears to be very a marked difference in their effectiveness along gendered lines. Men were involved in 73 attacks and produced 630 casualties; women were involved in 126 attacks, which produced 1,018 casualties (noting that some men and women were joined together and many bombers did not have listed genders). At a glance, it appears that attacks with men and women are similarly effective (kill-

ing, on average, 8.6 and 8.1 individuals per attack, respectively). However, women are often paired, or sent in large groups, and thus are much more ineffective overall. The average fatalities per bomber is approximately 4.2 for female bombers (note that this differs from our overall average lethality estimates, which include estimates for bombers whose gender is unidentified) and 6.7 per male bomber.

Fausses Femmes: The Use of Men Dressed as Women While Serving as Suicide Bombers

Boko Haram has also been shown to employ a tactic wherein its male suicide bombers are at times dressed as women. At its core, this tactic is used to make men appear less suspicious to vigilante groups and soldiers at checkpoints, effectively increasing their chances of carrying out successful and fatal detonations. The use of men dressed as women suggests that the insurgency is aware of the effectiveness of female bombers and is using them as an example for would-be male bombers to emulate. The use of male bombers dressed as women also suggests a level of planning and coordination related to the attacks that is not necessarily apparent upon first analysis of the group's profile. Indeed, this sort of planning may suggest that the lower average lethality per bomber may not be a result of a lack of operational capacity, but rather the result of a strategy.

For instance, in late January 2016, men in Gombe, Nigeria, donned female attire and behaved as "mad women" in order to carry out a suicide bombing. They successfully detonated their explosives and were the cause of five fatalities.[128] A male suicide bomber in Chad utilized a similar tactic for his deadly mission. Over the weekend of July 11, 2015, a man dressed in a full veil hid explosives underneath his burqa. He detonated at the checkpoint outside of N'Djamena's marketplace, killing 15 and injuring 80.[129] Such attacks demonstrate the insurgency's recognition of the operational benefits that female bombers enjoy, suggesting that the use of female suicide bombers is a strategic decision rather than a matter of coincidence or the availability of female bombers.

3.2: Boko Haram's Use of Child and Teenage Bombers

Before investigating the data on Boko Haram's use of child and teen suicide bombers, what logic lies behind the choice to employ them at all?

At the heart of why Boko Haram uses child and teen suicide bombers is that their employment in such activities has proven to inspire profound shock and awe. Precisely because children are normatively and legally—via the Geneva Accords—assumed to be outside of the bounds of war-fighting, their use might be thought of as a signaling device to civil groups to show both the seriousness of purpose and potential for brutality of Boko Haram. Indeed, the involvement of children in terrorist activities, though not common prior to the 21st century, was predicted as early as 1996 as a coming phenomenon, given that the "deliberate victimization of children" in terror operations could serve to "broaden the acceptable limits in order to maintain the overall climate of fear."[130] Boko Haram's inordinate use of child and teen suicide bombers might rightly be thought of as the ultimate social transgression, putting into play some of the most vulnerable members of society who often have limited cognizance of their actions.

Most bluntly, Boko Haram finds child and teen suicide bombers beneficial because children and teens have little agency over their own actions. Owing to their physically small size and immature cognitive development, children and teens are inherently easier to coerce into suicide bombings than adult

128 "Boko Haram changes tactics for terror attacks in Nigeria," Zee News, January 31, 2016.

129 "Suicide bomber kills 15 in market as Boko Haram takes revenge on Chad," *Times*, July 13, 2015; Madjiasra Nako and Moumine Ngarmbassa, "Suicide Bomber In Burqa Kills 15 People In Chad Capital," Reuters, July 11, 2015.

130 Max Taylor and John Horgan, "Future Developments of Political Terrorism in Europe," *Terrorism and Political Violence* 11 (1999): pp. 83-93.

counterparts, who have relative—though oftentimes still limited—agency over their actions. Moreover, investigations into the use of Boko Haram's child suicide bombers show that children are often disinclined to reveal their ordeals, even to their own communities, for fear of both stigmatization and violent physical reprisals.[131] Moreover, reports from UNICEF in April 2017 suggested that some children have been drugged prior to serving as suicide bombers.[132] Beyond their susceptibility to physical manipulation, children and teens are also vulnerable to psychological manipulation. For instance, when a part of insurgent groups, children sometimes come to learn the names of—and subsequently idolize—the group's suicide bombers as aspirational figures.[133]

Another benefit of using children as suicide bombers is that they are difficult to detect and thus effective at penetrating otherwise secure areas. Because of their smaller size, inferior place in society, presumed innocence, and generally non-threatening statuses, children are viewed as ideal decoys for more nefarious actions. In especially blunt terms, some have referred to children's roles as undetectable bomb-carriers as "little carts," for "their ability to sneak hidden weapons through military checkpoints without arousing suspicion."[134] As Bloom has assessed, "the use of the least likely suspect [children] is most likely a tactic of a terrorist group under scrutiny."[135]

Children are also ideal for the use as suicide bombers as they serve as a generally costless source of labor. In the same vein that child soldiers have been used extensively throughout other African insurgencies—especially in Liberia, Sierra Leone, and Sudan in the 1990s and in the Lord's Resistance Army in the Great Lakes region in the 21st century—Boko Haram has been similarly inclined to use parentless children in its operations, both as soldiers (as has been done by other insurgencies, in Africa and elsewhere) and as suicide bombers (which is innovative to Boko Haram).

A final reason that children and teens make for good suicide bombers is, simply, how easy it is to add them to the fold. Boko Haram is notorious for its kidnappings. Though full verification remains difficult, it appears to be the case that the majority of children that ultimately become child suicide bombers for Boko Haram are abducted; this is the case for both boys and girls.[136] Extant research has shown that children and teens have joined terrorist organizations because their friends have joined[137] (and sometime leaves because their friends leave)[138] or because they have been orphaned. An anonymous former insurgent turned blogger and government intermediary stated simply that the group has "children who have been orphaned, who are angry, who become bombers." In an opposite but equally tragic circumstance, certain accounts report that parents will sometimes offer up their children to be used as suicide bombers as a means of demonstrating their loyalty to the sect.[139] It is also conceivable that the children of Boko Haram members are being deployed as suicide bombers—a true testament to the group's efforts to harness the resources of its full membership.

131 "Lake Chad conflict: alarming surge in number of children used in Boko Haram bomb attacks this year – UNICEF," UNICEF Nigeria, April 12, 2017.

132 Samuel Osborne, "Boko Haram Increasingly Using Drugged Children As Suicide Bombers, Warns Unicef," *Independent*, April 12, 2017.

133 Ali and Post.

134 Peter Warren Singer, *Children at War* (Oakland, CA: University of California Press, 2006).

135 Bloom, "Female Suicide Bombers: A Global Trend."

136 It is possible that the number of child abductees is in the thousands, to say nothing of the children brought into the insurgency through their families or incentivized to join by material incentives. See, for example, "'Our Job Is To Shoot, Slaughter And Kill'; Boko Haram's Reign Of Terror," Amnesty International USA, April 2015.

137 John Horgan, Mia Bloom, Chelsea Daymon, Wojciech Kaczkowski, and Hicham Tiflati, "A New Age of Terror? Older Fighters in the Caliphate," *CTC Sentinel* 10:5 (2017).

138 Brian Dodwell, Daniel Milton, and Don Rassler, *The Caliphate's Global Workforce: An Inside Look at the Islamic State's Foreign Fighter Paper Trail* (West Point, NY: Combating Terrorism Center, 2016).

139 Eli Berman, *Radical, religious, and violent: The new economics of terrorism* (Cambridge, MA: MIT Press, 2011).

An Equal Opportunity Deployer? Limited Data on Boko Haram Bombers' Ages

Like its use of female suicide bombers, Boko Haram's use of child and teen suicide bombers is an innovative—though profoundly tragic—characteristic of Boko Haram's version of jihad. There is a significant range in the ages of Boko Haram's suicide bombers. Of the 134 bombers with an estimated age, 53 were identified as 'adults,' 53 were identified as 'teenagers,' and 28 were identified as 'children.' It is worth observing here that 300 bombers did not have an age estimated or reported. The number of bombers identified as non-adults amounts to 60.4% of all bombers with an identified age, a significant proportion that requires caveating our dataset and using other datasets to nuance our analysis. In total, our dataset shows that 81 non-adults (children and teenagers) were involved in 46 of Boko Haram's 238 attacks, or 19.3% of all attacks and 66.7% of all attacks in which an attacker had a listed age.

Relying exclusively on the data that we were able to collect, our estimates on the uses of child and teen suicide bombers are not robust, due to the lack of reporting on ages or age ranges of bombers. Retaining a similar logic that was discussed regarding suicide bombers' gender, we assume that in instances where media did not report age, the bomber was in fact an adult, as child or teen bombers would be more anomalous and thus newsworthy. We also realize, however, that in the event of successful detonations, the remains of the perpetrator may also not provide sufficient evidence of age, particularly in the case of children. Thus, while we interrogate the use of child and teen suicide bombers below, we supplement our analyses with data derived from other studies on the uses of child suicide bombers, including an April 2017 UNICEF report.

The Youngest Bomber

In our dataset, the youngest recorded age of a child suicide bomber was seven years old. Three girls of seven years of age were used in two attacks: one paired attack and one solo attack. On the weekend of December 9, 2016, two seven-year-old girls detonated explosives, killing one and injuring 17 at a market in Maiduguri, Nigeria.[140] In an earlier case, a seven-year-old girl killed five and injured 19 in a market in Potiskum, Nigeria, on February 22, 2015.[141]

A Focus on Girls

From our limited data, it appears that girls are much more likely than boys to be deployed as suicide bombers, at a ratio of approximately four to one. Of the 81 identified child or teenage attackers where the gender was identified, 23 were girls and an additional 42 were teenage girls, as compared to five male children and 11 teenaged boys. These trends broadly track with more detailed analysis presented in the April 2017 UNICEF report, which suggests that one in every five Boko Haram suicide bombers is a child, with three-quarters of child bombers being female.[142] Indeed, the outstripped use of female children highlights a dual marriage of innovations: the use of both women (discussed in the previous section) and children (highlighted in this section) to form an unprecedented new tactic for lethality.

To be sure, numerous ethical issues surround Boko Haram's use of children as suicide bombers. Most acutely, observers have expressed worry about the involvement of children in conflict. Beyond the physical and at times existential agency that children lose, children in the group's orbit also forgo schooling, healthcare, social interaction, and the possibility of a "normal" childhood. According to the U.N.'s 2007 Paris Principles on the Use of Involvement of Children in Armed Conflict, the use of chil-

140 Tom Powell, "Nigeria: Two girls, both aged 7, used by Boko Haram in suicide bomb attack," *Evening Standard*, December 11, 2016.

141 "Seven-Yr Old Suicide Bomber Blow Self Up, Kills Five in Potiskum," *Vanguard News*, February 22, 2015.

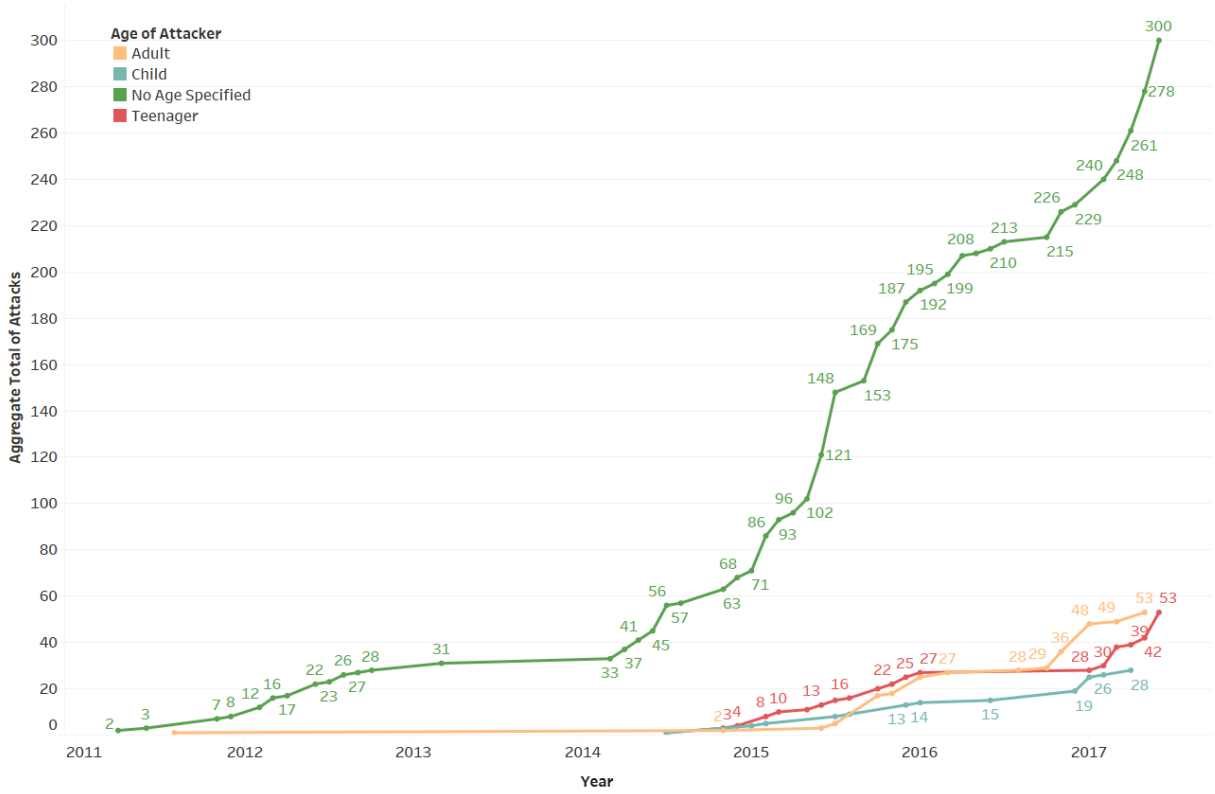
142 "Beyond Chibok: Over 1.3 Million Children Uprooted by Boko Haram Violence," UNICEF, April 2016.

dren under the age of 15 as soldiers is classified as a war crime by the International Criminal Court.[143] To the extent that Boko Haram has become noted for its use of child suicide bombers, Amnesty International has called for the group to be investigated for war crimes for the practice.[144]

An Overall Increase in the Use of Child Bombers

According to our dataset and additional inputs from UNICEF, the first instance of Boko Haram's use of a child suicide bomber occurred in July 2014, experienced a peak in 2015, a dip in 2016, and a resurgence in 2017.

Figure 14: Boko Haram Suicide Bomber Attacks by Age (April 2011-June 2017)



How are we to explain the genesis and prolongation of Boko Haram's outstripped use of child suicide bombers over time? We suggest that Boko Haram began employing children in its suicide bombing operations because the group learned the efficacy of using children in approximately 2014 as a result of two events. First, in April of that year, Boko Haram gained global prominence after its kidnapping of the Chibok Girls, highlighting to the group the potency of children as symbols in its terror operations. Second, we argue that although Chibok highlighted the power of the use of children in its operations, the rise of the Islamic State in the Levant, which has prominently featured children in its propaganda[145] even as other jihadi groups, like the al-Qa`ida-affiliated Jabhat Fateh al-Sham, have critiqued it for doing so,[146] encouraged Boko Haram to continue to involve children, as an emulation of the

143 "Child Recruitment," United Nations Office of the Special Representative of the Secretary General for Children and Armed Conflict, 2015.

144 "Our Job is to Shoot, Slaughter, and Kill."

145 Horgan, Taylor, Bloom, and Winter; Mia Bloom, John Horgan, and Charlie Winter, "Depictions of children and youth in the Islamic State's martyrdom propaganda, 2015–2016," *CTC Sentinel* 9:2 (2016).

146 Ibid.

group. Indeed, the 2015 *bay `a* to the Islamic State likely compelled Boko Haram to more profoundly incorporate children into its operations, in the vein of its (ostensible) parent organization—whose use of children as suicide bombers nearly doubled between January 2015 and January 2016 and whose use of operations involving children tripled in that same time period.[147] Indeed, as Bloom, Horgan, and Winter argue from their study of the Islamic State's eulogization of children, "we can assert with confidence that the use of children and youth has been normalized under the Islamic State's rule."[148]

Since then, Boko Haram has continued to leverage children in its operations, even more intensely, precisely because of their efficacy. At the time of this writing, the use of children seemed to be increasing as a proportion of the group's suicide bombers. More than 40% of the child bombers deployed by Boko Haram (35) were bombers that have been deployed in 2017.

Targeting Differences of Child Suicide Bombers

When it comes to targeting practices, our data reveals that Boko Haram's child and teen suicide bombers also tend to be deployed to civilian targets. In fact, of the 45 targets attempted by children or teenagers, almost half were markets, IDP camps, or bus stations. What lessons are we to draw from the deployment of non-adult bombers to these targets? First, it should be recognized that similar to the deployment of female suicide bombers, the use of child bombers is both the result of and an enabling factor behind the group's shift toward targeting civilians. This strategy has marked the group's outlook since 2014, at the beginning of when it moved away from attacking religious targets to focusing more heavily on markets and bus stops, and consistent with how the Islamic State employs children, which is to deploy to attack civilian targets where children blend in more easily.[149] Among other insights—not revealed by our data—other sources show that Boko Haram's child suicide bombers disproportionately targeted Cameroon, both in relative, and—highly surprisingly—absolute terms, between January 2014 and February 2016, during which time Cameroon experienced 21 child bombers, Nigeria 17, Chad two, and Niger none.[150]

The Surprising Efficacy of Child and Teen Suicide Bombers

Child and teen suicide bombers are also somewhat surprisingly effective as concerns the deadliness of their attacks. Bombings in which a child or teen is involved have a higher fatality-per-attack than the group's average, at 9.4 casualties per attack. When deployed singularly, they are most effective, at 11.3 casualties per bomber. However, their rates of failure are also high. Nevertheless, young bombers, when dispatched together, may be especially lethal, likely partially because of their ability to encourage each other to detonate.

On December 9, 2016, two paired female suicide bombers, described as "schoolgirls," detonated in a market in Madagali, killing 56 and wounding more.[151] The next deadliest attacks involving children had 20 fatalities each. The first attack was perpetrated by a 12-year-old girl in Maroua, Cameroon, on July 25, 2016. She set off an explosive device in a bar, injuring 79 in addition to the 20 killed.[152] The second attack serves as perhaps the most interesting and troubling case. A 10-year-old girl detonated in a crowded market in Damaturu, Nigeria, on July 26, 2015, with the explosion killing 20. However, there are doubts to whether the girl knew that she was going to explode or whether the explosion was

147 Ibid.

148 Ibid.

149 Bloom, Horgan, and Winter.

150 "Beyond Chibok: Over 1.3 Million Children Uprooted by Boko Haram Violence."

151 "World Digest: Dec. 9, 2016," *Washington Post*, December 9, 2016.

152 "In Brief," *China Daily*, July 27, 2015, p. 12.

triggered by a remote control. Eyewitnesses, when recounting the attack, remarked that young girl was "blown in two" and that "it wasn't clear if she knew what she was doing." This case most acutely illustrates why Boko Haram views children as ideal suicide bombers and the vulnerability of these children face before they become bombers.[153]

PART 4: ANALYSIS

Over time, the operational and demographic profile of Boko Haram's suicide bombers have shifted, creating the strategic profile we see today—one which depends on the surprising combination of paired attacks, young and female perpetrators, and targeting civilian spaces. Thus far, though, as we have illustrated, while Boko Haram has been somewhat able to leverage its unusual demographic arsenal of suicide bombers to inflict casualties, there is significant room for the group to grow even more lethal. If Boko Haram is able to do so, the result could be catastrophic—for Nigeria, for the Lake Chad region, and for the international community.

We argue that Boko Haram currently has the demographic means by which to enhance the lethality of its suicide-bombing efforts and to grow into the operational proficiency that would make the group much deadlier than it is now. In order to best combat Boko Haram's tactical development in this arena, it is important to understand its operational and demographic evolution in the past years. Any effort to combat the status quo in Boko Haram's recent suicide-bombing practices and avoid further intensification should carefully examine how the group has learned from its mistakes and adopted the innovations it uses today. Proactive counterterrorism and counterinsurgency policies require identifying the historical evolution of groups' operational portfolios and using the emergent profile to assess present and future capacity. Thus, we seek to understand how Boko Haram began in its use of suicide bombing and where it is today.

4.1: The Four Phases of Boko Haram's Suicide Bombing Efforts

With this in mind, we conclude this report in suggesting that Boko Haram's use of suicide bombers has occurred in four broad phases, characterized by shifts in types of bombers, targets, lethality, and success rates.[154] We detail the evolution of these periods below, which is evidenced in Figure 15.

153 "20 Killed in Maiduguri Poultry Market Suicide Bombing," *Daily Independent* (Lagos), January 11, 2015.

154 We are clear to caveat the fact that our presented chronology should not be taken as absolute. There are, inevitably, exceptions to each category. Our goal is to provide a general heuristic for understanding trends in Boko Haram's evolution, not rigidly categorize its actions.

Figure 15: Phases of Boko Haram's Use of Suicide Bombers

Phase	Dates	Predominant Target Type	Predominant Target Location	Typical Bomber Profile
Phase 1: Learning Phase	April 8, 2011, to May 12, 2013	Government and Christian institutions	Borno State	Lone men
Phase 2: Dormant Phase	May 13, 2013, to April 14, 2014	Government institutions and bus stops	Northeast Nigeria	Lone young men or young women
Phase 3: Unexpected Bomber Phase	April 15, 2014, to December 31, 2015	Civilian areas (markets and bus stops)	Northeast Nigeria and Lake Chad Basin	Young women, coordinated attacks, lone men
Phase 4: Incremental Improvement Phase	January 1, 2016, to present	Civilian areas (IDP camps)	Northeast Nigeria and Lake Chad Basin	Young women, children, coordinated attacks

Phase One: The Learning Phase (April 8, 2011, to May 12, 2013)

Though Boko Haram's criminality and low-intensity conflict began in 2003, suicide bombing did not emerge as one of the group's tactics until 2011. Thus, in our chronology of the group's use of suicide bombers, we delineate the period between April 8, 2011, (the first instance of suicide bombing by Boko Haram) and May 12, 2013, (the declaration of a state of emergency in Nigeria) as constituting Boko Haram's Learning Phase. This is the time during which the group began to use suicide bombers and, in so doing, sought to understand what logistical and strategic steps were necessary to most effectively leverage them as a part of its tactical arsenal.[155]

In this phase, Boko Haram launched 23 suicide attacks, in which the group inflicted minimal casualties and was generally confined in its efforts to northeast Nigeria. The group relied solely on men—particularly men who would strike alone—to carry out the initial suicide bombings. The targets of attacks during the Learning Phase were not the expected targets of Boko Haram's ostensible antipathy—Western education institutions—nor did they appear to seek to inflict mass casualties. Instead, the insurgency chiefly challenged state institutions: 39% of the attacks targeted government and military areas. This period also saw Boko Haram testing its ability to attack religious spaces, such as mosques and churches. While the group seemed initially unwilling to target fellow Muslims (only two of the 23 attacks placed a Shi`a cleric or mosque in its crosshairs), Boko Haram bombed Christian churches on 10 separate occasions, constituting nearly half of their total efforts in this time period.

The group also evidently learned a great deal during this time period. First, it was the group's last major effort to bomb Christian targets (only two churches were targeted by suicide bombers after 2013). Similarly, the group began to recognize the potential for multiple suicide bombers to work together; Boko Haram launched its first effort by a team of suicide bombers on November 4, 2011. Insurgents focused much of their energy on the city of Damaturu, launching a series of attacks in the region. While Boko Haram had relied previously on single bombers detonating a car bomb, this effort saw two attackers striking the same building with two different vehicles. The double suicide car bombing

155 To make this claim, we apply Horowitz's (2010) discussion of the use of suicide bombers as a non-statist analogue to statist "military" learning, terrorist organizations needs a rather sophisticated internal structure to undertake the process of suicide bombing at all. Thus, it is imaginable that Boko Haram was learning how to conduct attacks from 2011 to 2015, during which time both the number of attacks and number of fatalities were consistently on the rise as its understanding of the process improved.

at the anti-terrorist court building inflicted enormous damage, literally and symbolically, and set the tone for further bombings of the same kind.

Phase Two: The Dormant Phase (May 13, 2013, to April 14, 2014)

The group's learning process, however, was stymied by the dramatic change in the government's posture toward Boko Haram in May 2013, when then-President Goodluck Jonathan declared Nigeria's state of emergency. Whereas the first period saw Boko Haram use suicide bombers widely and with some real success, we assert that the period between May 13, 2013, and April 14, 2014, was that of a Dormant Phase, where radical Nigerian counterterrorism tactics successfully put Boko Haram on its back foot, leading to a temporary cessation of suicide bombings while it sought to reconstitute itself. Indeed, during this time, we see evidence of only one confirmed suicide bombing.

A Joint Task Force (JTF) that deployed to the region, following the declaration of the state of emergency, focused much of its efforts on flushing Boko Haram out of Maiduguri, Damaturu, and Yola, the state capitals of Borno, Yobe, and Adamawa States, respectively. The group's predominant tactic at the time, which depended on access to urban targets, certainly became more difficult in this period. The insurgency's efforts, as a result, began to shift toward the killing of civilians in less patrolled and rural areas to instill fear in the general population. For example, in February 2013, gunmen approached a dormitory at the College of Agriculture Gujba in Yobe State and opened fire on sleeping students, killing at least 40.[156] Without access to urban centers, and an inability to consolidate resources, the group perhaps could not afford to lose any of its members. This all changed with the kidnapping of the Chibok Girls on April 14, 2014.

Phase Three: The Unexpected Bomber Phase (April 2014 to December 2015)

The third period of Boko Haram's evolution of the use of suicide bombers is characterized by the adoption of a new tactic: the use of "unexpected" bombers. From April 15, 2014, to December 31, 2015, the group relied heavily on the deployment of women and children, often deployed in coordinated groups, thus the naming in our chronology of Boko Haram's Unexpected Bomber Phase, which, not coincidentally, was the group's most deadly as concerns suicide bombers.

This phase was initiated, we argue, by Boko Haram's recognition (and perhaps surprise) over the degree of notoriety that it gained from the Chibok kidnappings in April 2014, when the group abducted some 276 school-age girls from a school in Chibok, Nigeria. Though Boko Haram was generally little-known by those outside of Nigeria, the kidnaping of the Chibok Girls greatly increased its global profile, launching the viral #BringBackOurGirls campaign.[157] In the aftermath of the celebrity that accompanied the Chibok kidnappings, we surmise that Boko Haram realized the potency of gender and youth in its campaign, both in terms of strategy and notoriety.

As the group began to deploy female suicide bombers, it has increasingly been incorporated into Boko Haram's media strategy in order to garner a global audience. This is unsurprising since, as Nacos has noted, female suicide bombers are unique in their ability to generate media coverage.[158] This coverage helps cultivate an atmosphere of fear and insecurity that not only threatens citizens' physical security but also undermines gender norms. Indeed, we suggest that it is likely, given the extensive press coverage of female bombers, that the use of female suicide bombers was part of Boko Haram's media

156 "A Year Of Attacks Linked To Nigeria's Boko Haram," CNN, February 27, 2014.

157 Jason Warner, "Nigeria and 'Illusory Hegemony' in Foreign and Security Policymaking: Pax-Nigeriana and the Challenges of Boko Haram," *Foreign Policy Analysis* 13:3 (2016): pp. 638-661.

158 Nacos.

strategy.[159]

Such investments in shifting demography were prioritized in general and in terms of suicide operations, thus leading the group to adopt the "unexpected bomber" profile of women and children. While the new counterterrorism efforts previously thwarted Boko Haram's suicide efforts in the Dormant Phase, a younger and largely female workforce could circumvent those systems of restriction more easily. As a result, the Unexpected Bomber Phase is marked by Boko Haram's suicide bombers' gendered division of labor. While men focused on religious and government targets, women (almost exclusively) targeted civilian and non-secular spaces. In this phase, women and children (often in groups) carried out the majority of the attacks, especially targeting civilians. In particular, markets were a frequent target site. Of the 35 attempted bombings (involving women) in markets, 27 of them occurred during this time period.

Boko Haram's success in its niche targeting of civilians (by unexpected bombers) was further bolstered by the rise of the Civilian Joint Task Force, a civilian-generated vigilante group that cooperated with the Nigerian military to identify members of Boko Haram during raids and counterterrorism operations. The CJTF blurred the line between combatant and civilian and, according to one former insurgent, incentivized the insurgency to target civilians as punishment for their government cooperation. Moreover, 2015 signaled the point at which the Islamic State officially accepted Boko Haram's pledge of *bay`a*, and it may have begun to emulate the group's tactics related to territorial control. They expanded further into the Lake Chad Basin, with the first extra-Nigerian bombing occurring in Chad in June 2015.

However, the government began to adapt to the group's new modus operandi, and in August 2015, President Buhari announced a "three month deadline" for defeating Boko Haram, by December 31, 2015. After his announcement, the relocation of the campaign's military headquarters to Maiduguri, the further investment in the multinational joint task force, and the renewed energy to defeat the group caused a significant drop in Boko Haram's ability to conduct suicide bombings. After August 2015, the group launched fewer successful attacks as it was further driven from its strongholds. By December 31, Buhari declared, "I think technically we have won the war because people are going back into their neighborhoods. Boko Haram as an organized fighting force, I assure you, that we have dealt with them."[160]

Phase Four: The Incremental Improvement Phase (January 2016 to Present)

At first, it may have appeared that Buhari was correct. In 2016, there remained a steady decline in Boko Haram's use of suicide bombers. But 2017 has brought carnage anew. Between January and June, the group has launched 54 suicide attacks, more than its previous resurgence in 2014. Thus, we refer to the period beginning in January 2016 and running to present as the Incremental Improvement Phase. Even with all the past changes in the group's suicide bombing profile, Boko Haram remains both an aggressive user of suicide bombers and an adaptive one. The group continues to depend on unexpected bombers to handle the bulk of its suicide bombings, and similarly, it maintains its deployment of multiple attackers per target, yet has also innovated and evolved to attempt new tactics.

159 If this was one of the intended effects, it has been successful as numerous media outlets in Nigeria and abroad have paid special attention to "Boko Haram's female suicide bombers." Consider the salacious description of a female suicide bomber offered by *The Nation*: "There were corn rows on the head of the girl that exploded in Muna Dalti. There was a colourful bead on her wrist too. She probably loved to play dress-up and look good. Everybody forgets these bits of her. Folk remember her as the 'vixen' who flicked a switch and blew up, into a puddle of flesh and bone fragments."

160 "Nigeria Boko Haram: Militants 'technically defeated' – Buhari," BBC News, December 24, 2015.

4.2: Policy Implications

In order to understand the status quo of Boko Haram's suicide bombing strategy today, we conclude that policymakers should take into account the two major innovative hallmarks of its current efforts:

Doubling Down on Tactics from the "Unexpected Bomber Phase"

The use of women and children as suicide bombers has only increased since President Buhari's declaration that Boko Haram has been defeated. From January 2016 to May 2017, the percentage of bombings that contained either a woman or non-adult (child or teenage) bomber increased (from just over 60% in the Unexpected Bomber phase to 67.8% in the Incremental Improvement Phase) and may continue to rise throughout the year. Children, especially, have been leveraged in this period. While 38 non-adult bombers were deployed in 25 attacks prior to 2016, the past 18 months alone have already seen 43 non-adult bombers carrying out attacks. Increasingly, adult male bombers, the bread-and-butter workforce of most terrorist groups that rely on suicide bombing, are few and far between. Given that using women and children has proven to be so effective, the continuation of such attacks in the current Incremental Improvement Phase should be expected until the Nigerian security sector is able to mount a defense against them. More fundamentally, we can expect Boko Haram's suicide bombings to continue to evolve, subverting social norms and identifying unorthodox targets in order to exploit security gaps and continue its campaign against the state.

Doomed by Displacement? Targeting IDP Camps

While Boko Haram has previously shifted its gaze toward targeting civilians, it had typically done so by targeting 'everyday Nigerians,' like those shopping in markets or using public transportation. During the past 18 months of the Incremental Improvement Phase, we have seen Boko Haram pivoting to target a tragically ironic new kind of civilian—individuals who have been displaced due to Boko Haram. The International Displacement Monitoring Center (IDMC) estimates that there were almost 2,152,000 IDPs in Nigeria as of December 31, 2015.[161] As these civilians have flooded into IDP camps, Boko Haram has increased its operations in these areas.

Since the beginning of 2016, Boko Haram has targeted IDP camps 18 times, accounting for 21.4% of the time period's total targets. These attacks have been among the most lethal carried out in the past 18 months and have been perpetrated almost exclusively by female bombers. In several cases, women or children entered the camp disguised as IDPs, allowing them maximum access to the civilians there. As Boko Haram continues to displace citizens of Nigeria, it will be increasingly challenging to break the seemingly perpetual cycle that the group has created. The government will need to seek new methods to end Boko Haram's success in driving civilians into these camps and then targeting those same civilians en masse.

4.3: The Future Fight against Boko Haram's Suicide Bombing Operations

In light of these realities, how can we learn from Boko Haram's evolved deployment of suicide bombers, and what measures might be taken to mitigate their impact?

Tactical Defenses and Proactive Counterterrorism Policies

Tactical defenses against suicide bombers have eluded richer countries with better-trained militaries and more advanced equipment (in particular, Israel has been on the cutting edge of these attempts

161 "Nigeria IDP Figures Analysis," Internal Displacement Monitoring Centre, 2017.

to guard against suicide bombing), and so it seems unlikely that Nigeria will be able to afford the nascent anti-suicide bomber technology that exists.[162] Furthermore, the sort of behavior profiling that has proven effective in Israel's efforts is both prohibitively expensive and relies upon a security sector with more training and higher human capital than those of the Lake Chad region. Aside from the cost prohibitions and limitations of these security sectors, the variability in Boko Haram's targets raises the issue of what targets would (and should) be prioritized for protection. This question was partially answered in June 2017 when the Nigerian Security and Civil Defence Corps (NSCDC), Borno Command, deployed more than 600 personnel to various places of worship in Maiduguri (to defend against suicide bombers during Ramadan) and to the University of Maiduguri, which had been the victim of a recent spate of suicide bombings. However, this selection of areas reveals a serious gap in the understanding of Boko Haram's recent targeting trends.[163] The reality is that reducing the incidence and lethality of suicide bombings requires improved civil-military relations and a more holistic counterinsurgency approach.

Counter-Messaging Campaigns

We also suggest that three types of counter-messaging campaigns might potentially be effective to combat Boko Haram's use of suicide bombers. The first type of campaign would relate to delegitimizing the broader theological justifications for the admissibility of suicide-bombing campaigns as a tactic of jihad at all. Such justifications have been adopted by a number of Islamic fundamentalist armed groups, and directly combating the legitimacy of the tactic could prove to be effective in stymieing bomber commitment. One of the justifications made for targeting civilians in suicide bombings comes from Ibn Taymiyyah's (the namesake of Mohammed Yusuf's mosque) Mardin *fatwa*, which justified violence against Muslims if they are deemed to be apostates.[164] According to a recent AoAV report on IEDs, "modern Salafi-jihadi scholars have used Ibn Taymiyyah's *fatwa* as a precedent legitimising the use of IEDs against civilians."[165] More broadly, one of the primary catalysts for the proliferation of suicide bombings among jihadi groups was the proclamation by one of al-Qa`ida's most important theologians, Abdullah Azzam,[166] and Hezbollah's Ayatollah Sayyid Muhammed Husayan Fadlallah[167] that reframed "suicide" as "martyrdom," thus giving justification to the otherwise strictly forbidden practice of killing oneself in Islam.[168] A counter-messaging campaign aimed at debunking these salafi interpretations of the admissibility of martyrdom could theoretically serve as a potent counterweight, but in reality, may hold little weight for those who are coerced into their participation in suicide bombings, as appears to be common in the Lake Chad Basin.

The second counter-messaging campaign to mitigate the impact of suicide bombers would be a community-centered one, in which the hypocrisies of Boko Haram's suicide targeting tendencies is brought to the fore. To the extent that the group finds adherents in local communities who view its outlooks on the state and salafi Islam to be commensurate with their own views of such topics, the fact that Boko Haram has killed more civilians—and indeed, more Muslims than Christians—could be a powerful lever to delegitimize the group.

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162 See Cheyenne Macdonald, "The sensor that can sniff out a suicide bomber from 100 metres away: scanner could be built into public places," *Daily Mail*, November 20, 2015, and Kelsey D. Atherton, "NATO tests electromagnetic beam to stop suicide bombers," *Popular Science*, September 11, 2013.

163 "Boko Haram: NSCDC Deploys 600 Personnel to Maiduguri Worship Centers," *Daily Trust*, June 4, 2017.

164 Tom Heneghan, "Muslim scholars recast jihadists' favorite fatwa," Reuters, March 31, 2010.

165 Berntson and Eedle.

166 Moghadam.

167 Ali and Post.

168 For more on the history of how suicide bombing went from being forbidden to being justifiable in light of "extraordinary times," see Ali and Post.

The third type of counter-messaging campaign would focus on providing an in-the-moment off-ramp to those who have been conscripted into being suicide bombers, through either community members or the security service. This campaign would not only sensitize populations to the signs of a potential suicide bomber, but also how to report such a sighting as well as emphasize the lack of agency many have in these attacks. Additionally, such off-ramps would present additional options for would-be suicide bombers, many of whom turn to Boko Haram for non-ideological reasons. At present, Operation Lafiya Dole is engaged in a campaign along these lines. However, the phrasing and imagery featured in the billboards and pamphlets run the risk of further stigmatizing the coerced or unwilling bombers.[169] Such messaging may also impact the role of vigilantes, who seek to stop suicide bombers, but often may not know how to do so effectively.

4.4: Conclusion

Suicide bombing is likely to continue to play a significant role in Boko Haram's tactical portfolio, as it is a flexible and affordable means of attack that can be deployed against government targets, religious and educational targets, and civilian populations. The relative thrift of this tactic increases its appeal. We anticipate that suicide bombings will be a predominantly urban phenomenon; if Boko Haram continues its retrenchment in Borno State, Maiduguri can expect further suicide bombings.

However, if past patterns hold any predictive power, Boko Haram will continue to innovate in response to the recent and largely effective counterterrorism strategy taken by the Nigerian military. This will include not only shifting tactics, but also variations on the sorts of tactics. Boko Haram's willingness to use non-traditional demographics, such as women and children, to attack soft targets represents a threat to civilians who are both at risk of being unwillingly deployed as bombers and of being victims of such a bombing. If, as we suggest, some of the more atrocious variants on suicide bombing are a means of attracting media attention and cultivating fear, then we can expect the group to continue to innovate in order to subvert social norms for shock value—and the world will need to prepare for an inevitable fifth phase. The ability of national, regional, and global forces to deal with that new incarnation, however, remains to be seen.

169 The risk of such a stigma resulting in violence was made clear in March of 2015, when a girl refused to be searched at a security checkpoint in Bauchi, Nigeria. Crowds discovered two bottles strapped to the girl and proceeded to beat her to death. Afterward, they set her body aflame with a tire doused in fuel. "Crowd lynch 'bomb teen,'" *Daily Mirror*, March 2, 2015.