

Evolving Patterns of Violence in Developing Countries

Brian Michael Jenkins

Bruce R. Butterworth

With the Assistance of Sachi Yagyu



MINETA TRANSPORTATION INSTITUTE

Founded in 1991, the Mineta Transportation Institute (MTI), an organized research and training unit in partnership with the Lucas College and Graduate School of Business at San José State University (SJSU), increases mobility for all by improving the safety, efficiency, accessibility, and convenience of our nation's transportation system. Through research, education, workforce development, and technology transfer, we help create a connected world. MTI leads the [Mineta Consortium for Transportation Mobility \(MCTM\)](#) funded by the U.S. Department of Transportation and the [California State University Transportation Consortium \(CSUTC\)](#) funded by the State of California through Senate Bill 1. MTI focuses on three primary responsibilities:

Research

MTI conducts multi-disciplinary research focused on surface transportation that contributes to effective decision making. Research areas include: active transportation; planning and policy; security and counterterrorism; sustainable transportation and land use; transit and passenger rail; transportation engineering; transportation finance; transportation technology; and workforce and labor. MTI research publications undergo expert peer review to ensure the quality of the research.

Education and Workforce Development

To ensure the efficient movement of people and products, we must prepare a new cohort of transportation professionals who are ready to lead a more diverse, inclusive, and equitable transportation industry. To help achieve this, MTI sponsors a suite of workforce development and education opportunities. The Institute supports educational programs offered by the Lucas Graduate School of Business: a Master of Science in Transportation Management, plus graduate certificates that include High-Speed and Intercity Rail Management and Transportation Security Management. These flexible programs offer live online classes so that working transportation professionals can pursue an advanced degree regardless of their location.

Information and Technology Transfer

MTI utilizes a diverse array of dissemination methods and media to ensure research results reach those responsible for managing change. These methods include publication, seminars, workshops, websites, social media, webinars, and other technology transfer mechanisms. Additionally, MTI promotes the availability of completed research to professional organizations and works to integrate the research findings into the graduate education program. MTI's extensive collection of transportation-related publications is integrated into San José State University's world-class Martin Luther King, Jr. Library.

Disclaimer

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the information presented herein. This document is disseminated in the interest of information exchange. MTI's research is funded, partially or entirely, by grants from the U.S. Department of Transportation, the U.S. Department of Homeland Security, the California Department of Transportation, and the California State University Office of the Chancellor, whom assume no liability for the contents or use thereof. This report does not constitute a standard specification, design standard, or regulation.

REPORT 23-17

EVOLVING PATTERNS OF VIOLENCE IN DEVELOPING COUNTRIES

Brian Michael Jenkins
Bruce R. Butterworth

With the Assistance of Sachi Yagyu

August 2023

A publication of

Mineta Transportation Institute

Created by Congress in 1991

College of Business
San José State University
San José, CA 95192-0219

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. 23-17	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Evolving Patterns of Violence in Developing Countries		5. Report Date August 2023	
		6. Performing Organization Code	
7. Authors Brian Michael Jenkins Bruce R. Butterworth		8. Performing Organization Report CA-MTI-2344	
9. Performing Organization Name and Address Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219		10. Work Unit No.	
		11. Contract or Grant No. 70T02022C7554N001	
12. Sponsoring Agency Name and Address Transportation Security Administration Credentialing, Screening & Intelligence Analysis 6595 Springfield Center Drive Springfield, VA 20598		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplemental Notes DOI: 10.31979/mti.2023.2344			
16. Abstract <p>In August 2022, MTI issued a report entitled Changing Patterns of Violence Pose New Challenges to Public Surface Transportation in the United States. That report analyzed the frequency and lethality of attacks on public surface transport in economically advanced countries. But what has been going on in non-economically advanced countries – the vast majority of countries in the world? Using the MTI database of Terrorist and Serious Criminal Attacks Against Public Surface Transportation, the authors analyzed attacks against passenger trains and train stations, buses and bus stations and stops, and all rail infrastructure and operating and security personnel in both sets of countries between January 1, 2004, and December 31, 2022. For this analysis, countries that are economically advanced are based mostly on OCED membership and are designated as Group 1, and those with developing economies and others that are not OECD members, are designated as Group 2. (Group 3 countries are Israel and territory controlled by the Palestinian authority, which MTI will address in a separate report). This report focuses on Group 2 countries, comparing them to Group 1 countries. Group 2 had more than 7 times the number of attacks, and the lethality of its attacks was 3 times greater than in Group 1. In Group 2, many countries have long-running insurgencies that produce frequent and lethal attacks. There are far more attacks on buses and bus depots and stops in Group 2, reflecting greater reliance on bus travel. Explosives dominate attack methods, and while jihadist attackers are responsible for only 9.7% of attacks, they create 33.7% of fatalities. Jihadists are the most lethal attackers in both Group 1 and Group 2 countries. Suicide attacks account for only about 3% of the attacks in both groups, but while that percentage has gone down in Group 1, it has gone up in Group 2.</p>			
17. Key Words Safety and security, terrorism, threats, weapons, railroad transportation	18. Distribution Statement No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161		
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 56	22. Price

Copyright © 2023
by **Mineta Transportation Institute**
All rights reserved

DOI: 10.31979/mti.2023.2344

Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219

Tel: (408) 924-7560
Fax: (408) 924-7565
Email: mineta-institute@sjsu.edu

transweb.sjsu.edu

ACKNOWLEDGMENTS

The authors thank Janet DeLand, for editorial services, as well as MTI staff, including Executive Director Karen Philbrick, PhD; Deputy Executive Director Hilary Nixon; Education Director Asha Weinstein Agrawal, PhD; and Director of Operations Alverina Eka Weinardy.

Cover image source: STRDEL/AFP via Getty Images.

TABLE OF CONTENTS

Preface	1
I. Introduction	3
II. Key Judgments	4
III. The MTI Database	6
A Focus on Recent Trends	7
Target Categories Included and Omitted	7
IV. A Brief Review of Global Trends	8
V. Comparison of Attacks in Group 1 and Group 2 Countries	10
VI. Detailed Analysis of Recent Trends in Group 2 Countries	15
Number and Lethality of Attacks by Region	15
Number and Lethality of Attacks by Country	18
Number and Lethality of Attacks by Target Group	23
Number and Lethality of Attacks by Attack Method	26
Number and Lethality of Attacks by Attacker Group	28
The Most Lethal Combinations of Target Group, Attack Method, and Attacker Group	30
Suicide Attacks	39
Appendix A: Additional Tables	44
Appendix B: Additional Figures	52
About the Authors	56

LIST OF FIGURES

1. Attacks and Casualties Over Time	9
2. Lethality of Attacks Over Time	9
3. Number of Attacks in Country Groups Over Time	12
4. Percentage of Attacks in Country Groups Over Time	12
5. Lethality of Fatal Attacks by Country Group	13
6. Lethality of Fatal Attacks by Country Group, Excluding the Madrid and London Bombings	14
7. Attacks by Region in Group 2 Countries	18
8. Lethality of Attacks by Region in Group 2 Countries	18
9. Attacks in the Top 10 Group 2 Countries Over Time	22
10. Lethality of Attacks in the Top 10 Group 2 Countries Over Time	22
11. Pattern of Attacks in Group 2 Countries by Target Group	24
12. Pattern of Fatal Attacks in Group 2 Countries by Target Group	25
13. Lethality of Attacks in Group 2 Countries by Target Group	25
14. Lethality of Fatal Attacks in Group 2 Countries by Target Group	26
15. Frequency of Attacks in Group 2 Countries by Attack Method	28
16. Lethality of Attacks in Group 2 Countries by Attack Method	28
17. Frequency of Attacks in Group 2 Countries by Attacker Group	30
18. Lethality of Attacks in Group 2 Countries by Attacker Group	30
19. Percentage of Suicide Attacks in Total Attacks in Group 1 Countries	40
20. Lethality of Suicide Attacks in Group 1 Countries	40
21. Percentage of Suicide Attacks in Group 2 Countries	42
22. Lethality of Suicide and Non-suicide Attacks in Group 2 Countries	42

B1. Number of Fatal Attacks in Group 2 Countries by Region	52
B2. Lethality of Fatal Attacks in Group 2 Countries	52
B3. Number of Fatal Attacks in Top 10 Group 2 Countries	53
B4. Lethality of Fatal Attacks in Top 10 Group 2 Countries	53
B5. Number of Fatal Attacks in Group 2 Countries by Attack Method	54
B6. Lethality of Fatal Attacks in Group 2 Countries by Attack Method	54
B7. Number of Fatal Attacks in Group 2 Countries by Attacker Groups	54
B8. Lethality of Fatal Attacks in Group Countries by Attacker Group	55

LIST OF TABLES

1. Total Attacks, Fatalities, and Injuries in the Selected Target Categories	8
2. Comparison of Attacks and Fatalities in Group 1 and Group 2 Countries	10
3. Comparison of Attacks with Fatalities in Group 1 and Group 2 Countries	11
4. Fatalities and Lethality of Attacks by Region in Group 2 Countries	17
5. Fatalities and Lethality of Fatal Attacks by Region in Group 2 Countries	17
6. Attacks by Country in Group 2 Countries	21
7. Attacks in Group Countries by Target Group	23
8. Fatal Attacks in Group 2 Countries by Target Group	24
9. Lethality of Attacks in Group 2 Countries by Attack Method	27
10. Lethality of Attacks in Group 2 Countries by Attacker Group	29
11. Most Lethal Combinations of Attack Method and Target Category Responsible for 10 or More Attacks in Group 1 Countries	32
12. Most Lethal Combinations of Attack Method and Target Category with Less than 10 Attacks Each in Group 1 Countries	32
13. Most Lethal Combinations of Attacker Group, Attack Method, and Target Group with 10 or More Attacks in Group 1 Countries	33
14. Most Lethal Combinations of Attacker Group, Attack Method, and Target Group in Group 1 Countries: Combinations with Fewer than 10 Attacks	34
15. Most Lethal Combinations of Attack Method and Target Group in Attacks in Group 2 Countries	34
16. Lethality of the Combination of Attack Method and Target Category in Attacks in Group 2 Countries	35
17. Lethality of Combinations of Attacker Group, Attack Method, and Target Category in Attacks in Group 2 Countries	36
18. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 2 Countries	38
19. Fatalities and Lethality of Suicide Attacks in Group 1 Countries	39

20. Lethality of Suicide Attacks in Group 2 Countries	41
A1. Fatal Attacks in Group 2 Countries	44
A2. Fatal Attacks in Group 2 Countries by Attack Method	45
A3. Fatal Attacks in Group 2 Countries by Attacker Group	45
A4. Lethality of Combinations of Attack Method and Target Group in Attacks in Group 1 Countries	46
A5. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 1 Countries	46
A6. Lethality of Combinations of Attack Method and Target Group in Attacks in Group 2 Countries	48
A7. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 2 Countries	51

PREFACE

People in economically advanced countries, including European countries and the United States, have experienced the horror of terrorist incidents, including some spectacular attacks on passenger trains and passenger buses. On March 4, 2004, jihadist extremists set off bombs on passenger trains in Madrid, killing 191 people and wounding at least 2,000 more. Sixteen months later, on July 7, 2005, another jihadist group attacked the subway system in London, killing 52 people and injuring 700. The fear remains. The events are readily remembered.

Not as well remembered are the far more numerous attacks in less economically developed countries. Six of the deadliest terrorist attacks on public surface transportation committed in these countries are among those included in the analysis in this report, published by the Mineta Transportation Institute (MTI) as a companion to its August 2022 report, *Changing Patterns of Violence Pose New Challenges to Public Surface Transportation in the United States*.¹ Some of the attacks were quite sophisticated. Most, but not all, were carried out by jihadist groups.

India (July 11, 2006): Seven bombs were detonated on commuter trains during Mumbai's evening rush hour, killing 189 people and injuring more than 800. The terrorist group Lashkar-e-Taiba, an Islamic organization that can be considered jihadist, placed seven bombs in pressure cookers and detonated them within 15 minutes of each other during Mumbai's evening rush hour, targeting first-class cabins in trains leaving the city's financial district. The first bomb detonated at 6:24 p.m., the last at 6:35 p.m. At least 189 people were killed, and the number of casualties was estimated to be over 800. On September 15, 2015, following a long and controversial investigation, 12 people were convicted of the attack; five were sentenced to death, and five were sentenced to life in prison.

India (February 18, 2007): Islamic militants attacked the Samjhawta Express, killing 68 people and injuring more than 10. Starting in 1976, a twice-weekly passenger train called the Samjhawta Express (also known as the Peace Train) traveled from New Delhi, India, to Lahore, Pakistan. At 11:53 p.m. on February 18, 2007, just after the train left the station in the village of Diwana, suitcases full of flammable liquids (fuel oil and chemicals) were detonated in two carriages by a remote timer as the train reached Panipat, 50 miles north of New Delhi. (Reportedly, two of the bombs did not explode.) A wall of flame swept through two wooden compartments, where passengers, including children, were sleeping. Seventy passengers, mostly Pakistanis, were killed, and 50 were injured by the blast and in the ensuing fire. Four men were arrested after the attack but were later acquitted for lack of evidence. It is generally believed that the attackers were Islamic militants—members of either Lashkar-e-Taiba (LeT) or Jaish-e-Muhammad (JeM).

India (November 26, 2008): A jihadist attack on a train station in Mumbai, part of a larger attack, killed 58 people and injured 108. On November 26, 2008, 10 men armed with automatic weapons and hand grenades began targeting civilians at numerous sites in Mumbai, including popular and even iconic popular places such as the Leopold Café, two hospitals, a theater, and the Chhatrapati Shivaji Maharaj Terminus, the main train station.

¹ <https://transweb.sjsu.edu/research/SP0822-Jenkins-Butterworth-Changing-Patterns-Violence-Transit>

The attackers also took hostages at three locations: a Jewish community outreach center and two luxury hotels, the Oberoi Trident and Taj Mahal Place and Tower. Altogether, 166 people were killed and more than 300 were injured. Among those killed were 26 foreign nationals. Nine of the terrorists were killed, and one was arrested. A jihadist faction calling itself Mujahideen Hyderabad Deccan claimed responsibility, but it is unclear who organized and directed the assaults. It is assumed that they were conducted by Lashkar-e-Taiba, but Pakistani Intelligence is suspected to have been involved.

Two gunmen carried out the attack on the train station, using AK-47 assault weapons and hand grenades. The assault began at 9:30 p.m., when the station was crowded, and ended an hour and 15 minutes later at 10:45 p.m. When security forces arrived, the attackers fled the station and fired at pedestrians and officers in the street, killing eight police officers. They then headed to other targets, including a hospital, and eventually were confronted at a police roadblock. In the assault on the train station, 58 people were killed and 108 were injured.

India (May 28, 2010): Maoists derailed an express passenger train, killing 148 people and injuring 100. At approximately 1:00 a.m., the Jnaneswari Express, a regularly scheduled train between Calcutta and Mumbai, was on its route, with 13 carriages full of passengers. Somewhere between the Sardiha and Kmemasuli stations in West Bengal, the train derailed after passing over 17 to 18 inches of track that had been sabotaged. Clips used to secure the track, known in India as “fishplates” or pandrol clips, had been removed. Three of the derailed carriages were then hit by a freight train traveling in the opposite direction, leaving the cargo cars and the passenger train cars twisted in a wreck. At least 148 people were killed, and as many as 200 were injured.

The derailment took place during a Maoist “Black Week,” in which the Communist Party of India-Maoist, otherwise known as the Naxalites, began an offensive against the Indian government. The party officially denied responsibility, but there is evidence that a local Maoist group was responsible. However, it is possible the derailment may have been intended for the cargo train.

Nigeria (April 14, 2014): A jihadist car bomb exploded at a bus station, killing 71 people and injuring 124. On the morning of April 14, 2014, the Nyanya Motor Park bus station near Abuja, Nigeria’s capital, was crowded with shoppers. At around 6:45 a.m., a vehicle parked nearby exploded, killing at least 71 people and injuring 24. Boko Haram, an Islamist terrorist group, claimed responsibility for the blast. Boko Haram’s leader, Abubakar Shkau, said the attack was in retaliation for Nigeria’s cooperation with the United States.

Niger (March 16, 2021): Jihadists assaulted a bus, killing 58 people. On March 16, 2021, armed motorcyclists linked to jihadist groups fired automatic weapons on a convoy of buses traveling from a market in Banibangou to a nearby village in Niger’s Tillabéri Region, killing 58 people (some observers estimated the death toll to be 66). This attack was followed by a number of other attacks in local villages, killing a total of 137. Another attack, on March 24, killed 10 more people.

The sophistication displayed in these attacks reflects the fact that they were part of large and, in most cases, long-running insurgencies. Some of the attackers benefited from external state training and support.

I. INTRODUCTION

In August 2022, the Mineta Transportation Institute published a report entitled *Changing Patterns of Violence Pose Challenges to Public Surface Transportation in the United States*. Because the report was focused on recent trends in violence that could be considered most relevant to the United States, it analyzed only attacks on public surface transportation systems in developed countries. However, it promised to subsequently address recent trends in attacks on public surface transportation systems in emerging and developing countries.

To avoid debates about criteria for identifying whether a particular country should be described as having an advanced economy, an emerging economy, or a developing economy, the authors simply labeled the countries examined in the first report “Group 1” and the remaining countries “Group 2.” The Group 1 countries include Europe (members of the European Union and associated states, but not Russia), Japan, the Republic of Korea, Singapore, Taiwan, and Hong Kong (but not the rest of China), Australia and New Zealand, Canada and the United States, and three Latin American countries—Chile, Costa Rica, and Mexico.

These countries constitute the membership of the Organisation for Economic Co-operation and Development (OECD). Colombia, Israel, and Turkey, although members of OECD, were excluded from the study because of their histories of political violence during the past two decades. Our concern was that including them would add so many incidents that it would distort the analysis by overshadowing subtle trends in countries where attacks are rare. Because of unique circumstances, Israel and the areas governed by the Palestinian National Authority were put in their own category, Group 3.

The groups were determined by the specific objectives of the research, not by our assessment of economic development or other political objectives.

II. KEY JUDGMENTS

- The levels and patterns of attacks on public surface transportation in Group 1 countries differ significantly from those in Group 2 countries. A number of the countries in Group 2 are the sites of long-running insurgencies that have produced much higher volumes of violence with far more casualties.
- Group 2 countries have experienced more than seven times the number of attacks in Group 1 countries. This difference drives the global statistics and overshadows the very different threat landscape faced by Group 1. Thus, it is appropriate to analyze the two groups separately.
- Part of the disparity in the volume of violence experienced by Group 1 and Group 2 countries may reflect differences in population. The total population of the Group 2 countries is more than five times that of the Group 1 countries.
- Group 2 countries experience more attacks on public surface transportation, more lethal attacks, and, consequently, far more fatalities.
- The tactics used by the attackers differ, with Group 2 countries experiencing far more bombings than Group 1 countries.
- There have been few major changes in the pattern of violence within the Group 2 countries. The diversity of the countries and the sheer volume of violence in them may dilute dramatic changes. The violence in the countries driving the overall numbers also reflects long, continuing armed campaigns where tactical repertoires and target preferences have become normalized.
- Three countries—India, Pakistan, and Iraq—account for half of the attacks in the Group 2 countries. Ten countries account for 75% of the attacks: India, Pakistan, Iraq, Bangladesh, the Philippines, Thailand, Colombia, Nigeria, the Russian Federation, and Nepal. During the period examined, these countries experienced long-running insurgencies or terrorist campaigns. That means the vast majority of Group 2 countries experience levels of violence more comparable to those in Group 1.
- The levels of violence in India and Pakistan have declined slightly in recent years, while the levels in Sub-Saharan Africa have increased, owing to the activities of jihadist groups in the Sahel. The levels in Thailand have also increased, owing to separatist activity in the southern part of the country. Iraq saw a sharp escalation in violence following the U.S.-led invasion in 2003.
- Between 2004 and 2021, the overall volume of attacks in Group 2 countries decreased slightly; the lethality of the attacks also decreased.
- In contrast to Group 1 countries, Group 2 countries experience far more attacks on buses and bus depots and stops. This reflects the greater reliance on public bus travel in many Group 2 countries.

-
- Explosives dominate the attack methods in Group 2 countries, accounting for 55.7% of the attacks and 60.2% of the fatalities. Firearms were used in 20.7% of all attacks. Attacks with these two methods were also the most lethal. Other lethal methods used in some attacks included stabbings, massacres, and executions (not carried out by a state authority), along with a single vehicle ramming.
 - Unknown groups or individuals comprise the largest category of attackers, accounting for 45.8% of the attacks and 33.5% of the fatalities. Attackers motivated by jihadist ideology are responsible for 9.7% of the attacks but 33.7% of the fatalities. Jihadists are the most lethal attackers in Group 2, as they are in Group 1.
 - The most lethal combinations of attacker group, attack method, and target category in Group 2 (considering only combinations with a high number of attacks in order to allow a comparison with attacks in Group 1 countries, and separately, a comparison of combinations with few attacks but high levels of lethality) were jihadist attacks involving explosives targeting bus stations, jihadist attacks involving explosives targeting buses, and armed assaults on buses by unknown attackers. These were also generally the most common combinations. The most lethal combinations in attacks in Group 1 countries were *also* jihadists attacking passenger train targets with explosives. However, the most common combinations were unknown perpetrators or anarchist/environmental groups attacking rail infrastructure with mechanical sabotage or arson and improvised incendiary devices (IIDs).
 - Suicide attacks, which receive much attention and generate great fear, actually account for only about 3% of the attacks in Group 2 countries, the same percentage as in Group 1. But while the percentage of suicide attacks has declined in Group 1, it has gone up slightly in Group 2. Finally, while suicide attacks have been more lethal than non-suicide attacks in both groups, the difference in the lethality of suicide and non-suicide attacks is greater in Group 2 than it is in Group 1.

III. THE MTI DATABASE

The observations presented in both the earlier report and the present report are based on the current configuration of the MTI Database of Terrorist and Serious Criminal Attacks Against Public Surface Transportation. MTI began its chronology of attacks in 1997 and developed a more robust platform of off-line analysis in 2008 and on-line analysis in 2011. The database draws from a variety of media reports and other sources, including the RAND Corporation's chronology of terrorism, which contains incidents occurring from 1968 to 2009; the Global Terrorism Database maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland; and the National Counterterrorism Center's Worldwide Incident Tracking System, as well as extensive media searches and direct contacts with transportation operators.²

Each of the incidents in the database is catalogued according to date, time (including whether in peak or off-peak hours), place (city, region, country), fatalities and injuries, and whether a suicide was involved. The attacks are categorized according to 74 different targets, consolidated into 11 target groups, and 77 attack methods, similarly consolidated into 13 attack method groups.

Bombings are categorized in the database by 11 different types of explosives, whether the explosives were used alone or in combination, and their particular purpose (e.g., derailment, kidnapping, robbery, or hijacking). The data include the number of explosive devices used, how they were concealed or where they were placed (within 46 categories, such as "placed on vehicle road, bridge or tunnel"), and whether they were placed above or below ground, along with one of 8 outcomes, including "detonated on target and on time"; whether multiple devices were used to kill responding forces; and whether the attack was detected and stopped, and if so, by whom. Perpetrators are categorized into one of more than 85 specific attacker groups or types.

The incidents in the database occurred between January 1, 1970, and the present. As of May 31, 2023, the database had catalogued a total of 5,762 attacks targeting passenger trains and train stations; buses and bus stations; passenger ferries and terminals; rail and highway infrastructure, facilities, and offices; and operating personnel and security staff. These attacks resulted in 12,612 deaths and 42,362 injuries. (Including highway, freight train, and miscellaneous transportation targets brings the total to 6,447 attacks resulting in 13,516 fatalities and 43,182 injuries.) The total numbers of attacks, fatalities, and injuries in both Group 1 and 2 countries between January 1, 2004, and December 31, 2021, are presented in this report, and the focus is then narrowed to those in Group 2 countries.

² The numbers of attacks and casualties differ slightly from those in the earlier report, with little effect on distribution or lethality. Each year, MTI reviews a past year of attacks added by the University of Maryland to its Global Terrorism Database (GTD), and each year we find a few attacks in the GTD that we did not find earlier (just as the GTD misses attacks that MTI has found). Almost all the additional attacks were in Group 2 countries, and they produced few if any fatalities. Knowing this and trying to avoid a false decline in attacks or fatalities, we assumed that the number of attacks that we missed in 2019 (and that were subsequently added), 47, would be the same in 2020 and 2021. This assumption proved very accurate when we received the actual data for 2020. The numbers assumed for 2021 will almost certainly be verified by actual data when they are available.

A FOCUS ON RECENT TRENDS

The analyses presented in both the August 2022 report and the present report include only events that occurred between 2004 and the end of 2021. In its early years, the MTI chronology was more illustrative than comprehensive, and although it is continually being improved (with the addition of missed events and new details for existing entries), confining our study to data on events in recent decades enables more detailed analyses with greater confidence. The exclusion of earlier events also enables us to escape the distorting effects of history. The intensive bombing campaigns carried out by the Irish Republican Army (IRA) in Northern Ireland and England and by Basque separatists in Spain (ETA) during the last quarter of the 20th century dominate the data for Europe, making it more difficult to discern 21st century trends.

Finally, considering only recent incidents avoids the analytical problems arising from the division of Europe into Western and Eastern zones with very different political experiences. The 18 years examined here are divided into nine two-year increments (2004–2005, 2006–2007, etc.), ending with 2020–2021, in order to smooth out some of the sharp peaks and valleys in the charts and graphs. To facilitate comparisons between trends in Group 1 and Group 2 countries, we use the same time frame in both reports.

TARGET CATEGORIES INCLUDED AND OMITTED

The analyses in both reports focus on a subset of target groups: passenger trains; passenger train stations; passenger buses (including tourist, school, and chartered buses); bus stations and stops; all rail infrastructure, including railway tracks, tunnels and bridges, and signaling, control and power systems; and operating personnel and facilities and security personnel (persons deployed to operate, service, and protect the public surface transport services).

The analyses do not include freight trains and stations; vehicle highways, tunnels, and bridges (most attacks against these targets occur in Group 2 countries); United Nations convoys; or miscellaneous targets or multiple targets not clearly identified with a specific target group.

IV. A BRIEF REVIEW OF GLOBAL TRENDS

In this section, we briefly review overall global trends. Some of the differences between the Group 1 and Group 2 countries are highlighted in Section V.

Between January 1, 2004, and December 31, 2021, there were a total of 3,836 attacks on public surface transportation in Groups 1 and 2 (see Table 1). These attacks resulted in 7,412 fatalities and 21,857 injuries. The overall lethality rate was 1.9 fatalities per attack (FPA) and 5.7 injuries per attack (IPA).

Table 1. Total Attacks, Fatalities, and Injuries in the Selected Target Categories

Time Period	Attacks		Fatalities		Injuries		Lethality	
	# Attacks	% Attacks	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
2004-5	302	9.0%	664	9.0%	3730	17.1%	2.2	12.4
2006-7	438	10.3%	763	10.3%	2833	13.0%	1.7	6.5
2008-9	272	8.9%	656	8.9%	2059	9.4%	2.4	7.6
2010-11	375	10.0%	744	10.0%	2169	9.9%	2.0	5.8
2012-13	556	18.1%	1341	18.1%	3336	15.3%	2.4	6.0
2014-15	749	20.3%	1502	20.3%	4097	18.7%	2.0	5.5
2016-17	439	10.7%	793	10.7%	1919	8.8%	1.8	4.4
2018-19	355	5.8%	429	5.8%	914	4.2%	1.2	2.6
2020-21	350	7.0%	520	7.0%	801	3.7%	1.5	2.3
Total/Percentages/Averages	3836	100.0%	7412	100.0%	21857	100.0%	1.9	5.7

Figure 1 shows a very slight increase in attacks over time and a very slight decrease in fatalities, with a sharper decline in injuries. The greatest numbers of attacks, fatalities, and injuries occurred in the 2014–2015 period, with a decline in the subsequent years. Figure 2 shows a very gradual decline in FPA and a somewhat steeper decline in IPA. The broken lines in the figures reflect the actual numbers by two-year period, while the solid lines indicate the trendline.

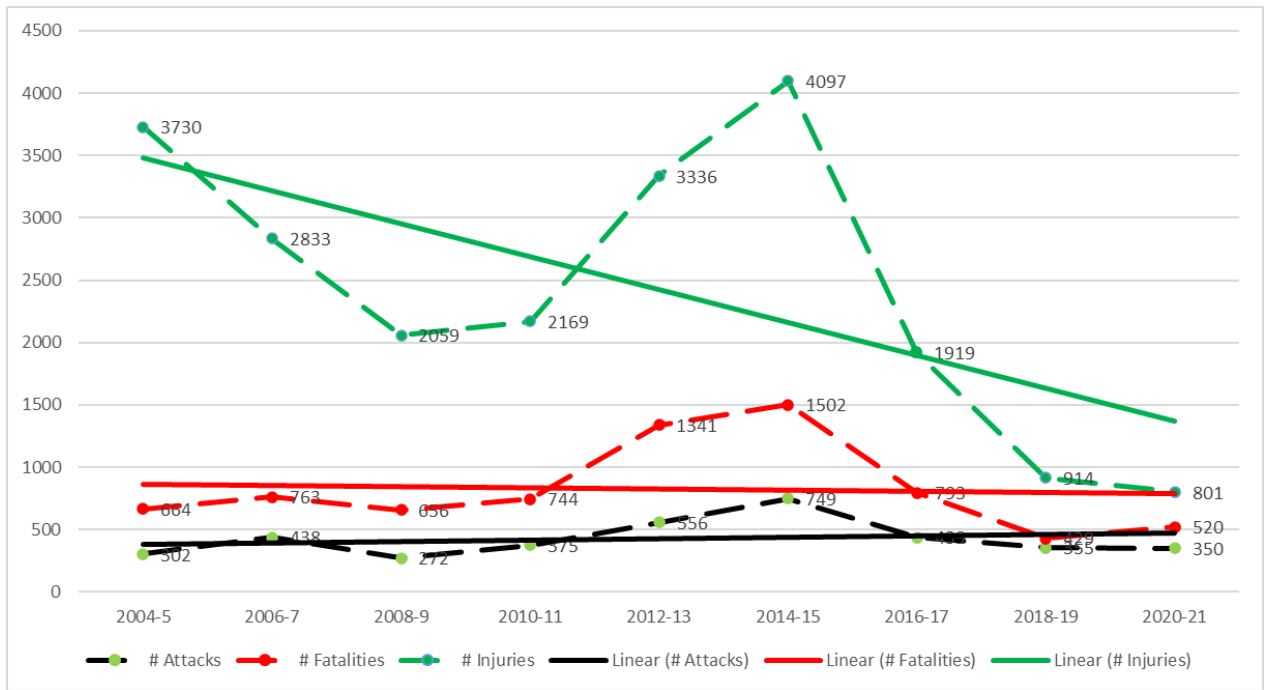


Figure 1. Attacks and Casualties Over Time

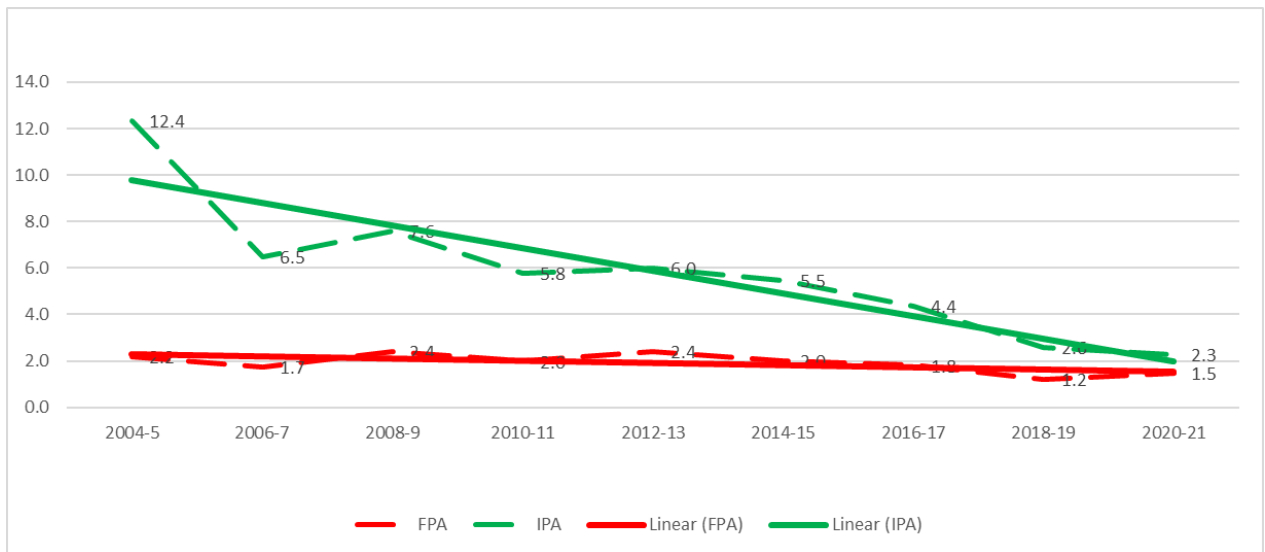


Figure 2. Lethality of Attacks Over Time

V. COMPARISON OF ATTACKS IN GROUP 1 AND GROUP 2 COUNTRIES

Table 2 compares the numbers and lethality of attacks in the Group 1 and Group 2 countries. For the entire 18-year period examined, Group 2 countries account for nearly 87.6% of the attacks and 95.3% of the fatalities. As pointed out in the earlier report, there have been far more attacks and fatalities in the Group 2 countries, but the percentage of total attacks taking place in the groups has changed in recent years: The percentage of attacks in Group 2 countries increased until the 2012–2013 period, when these countries experienced 95.5% of the total attacks, and then it declined to 62.3% in 2020–2021. There was a corresponding increase in the Group 1 percentages of the total.

Similarly, the percentage of total fatalities in Group 2 countries decreased, from nearly 99.8% in 2012–2013 to 92.2% in 2016–2017, and then went back up to 97.3 % in 2020–2021. Group 2 countries experienced only 63.4% of the fatalities in 2004–2005, but this reflected two statistical outliers in Group 1 countries: the bombings on trains in Madrid in 2004 and the bombings of the London tube and bus systems in 2005.

Table 2. Comparison of Attacks and Fatalities in Group 1 and Group 2 Countries

Time Period	Group 1 Attacks		Group 1 Fatalities		Group 2 Attacks		Group 2 Fatalities		Lethality	
	#	% of All	#	% of All	#	% of All	#	% of All	Group 1 FPA	Group 2 FPA
2004-5	23	7.6	243	36.6	279	92.4	421	63.4	10.6	1.5
2006-7	25	5.7	0	0.0	413	94.3	763	100.0	0.0	1.8
2008-9	20	7.4	0	0.0	252	92.6	656	100.0	0.0	2.6
2010-11	18	4.8	4	0.5	357	95.2	740	99.5	0.2	2.1
2012-13	25	4.5	3	0.2	531	95.5	1338	99.8	0.1	2.5
2014-15	47	6.3	6	0.4	702	93.7	1496	99.6	0.1	2.1
2016-17	87	19.8	62	7.8	352	80.2	731	92.2	0.7	2.1
2018-19	99	27.9	20	4.7	256	72.1	409	95.3	0.2	1.6
2020-21	132	37.7	14	2.7	218	62.3	506	97.3	0.1	2.3
Total/Percentages/Averages	476	12.4	352	4.7	3360	87.6	7060	95.3	0.7	2.1

There is always a concern that percentages may reflect a reporting bias. News coverage is lacking in many of the developing countries, especially outside major cities. Moreover, much of the reporting does not reach the Internet.

We also acknowledge our own limitations in capturing incidents. We have tight resource constraints, so our Internet searches are limited primarily, although not exclusively, to reports in English or in other languages translated into English. Major incidents, especially those with casualties, are reported in the international news media, but the media may tend to ignore or simply not have access to information about low-level attacks in remote areas of developing countries. In addition, governments in many parts of the world are not interested in publishing statistics or publicizing incidents of violence. Despite our efforts to canvass local sources for information on attacks and to identify relevant research by individual scholars, incidents in remote parts of the world are likely to be underreported. As a result, our reporting on attacks outside of Group 1 countries is more illustrative than comprehensive.

To test the validity of our findings, we performed an examination of only incidents with fatalities, thereby eliminating the low-level events recorded in both Group 1 and Group 2 countries. The results are shown in Table 3. The percentage of attacks with fatalities in Group 1 countries is lower than it is for all attacks—just 4.7%, compared to 12.4%. However, the proportion still increased from 0.5% in 2012–2013 to 13.7% in 2020–2021. Therefore, while there may be some bias in the reporting, our finding of the overall upward trend holds.

Table 3. Comparison of Attacks with Fatalities in Group 1 and Group 2 Countries

Time Period	Group 1 Attacks		Group 1 Fatalities		Group 2 Attacks		Group 2 Fatalities		Lethality	
	#	% of All	#	% of All	#	% of All	#	% of All	Group 1 FPA	Group 2 FPA
2004-5	2	2.9	243	36.6	67	97.1	421	63.4	121.5	6.3
2006-7	0	0.0	0	0.0	101	100.0	763	100.0	4.0	7.6
2008-9	0	0.0	0	0.0	71	100.0	656	100.0	3.0	9.2
2010-11	1	1.0	4	0.5	99	99.0	740	99.5	2.0	7.5
2012-13	1	0.5	3	0.2	221	99.5	1338	99.8	3.9	6.1
2014-15	3	1.1	6	0.4	264	98.9	1496	99.6	1.8	5.7
2016-17	16	11.0	62	7.8	129	89.0	731	92.2	1.1	5.7
2018-19	11	12.2	20	4.7	79	87.8	409	95.3	7.5	5.2
2020-21	13	13.7	14	2.7	82	86.3	506	97.3	1.1	6.2
Total/Percentages/Averages	47	4.1	352	4.7	1113	95.9	7060	95.3	7.5	6.3

The lower percentage of attacks with fatalities in Group 1 countries also reflects the nature of the attacks on public surface transportation in those countries: Many of the attacks are focused on environmental and related issues and are intended to be symbolic or disruptive rather than deadly. Attacks in Group 2 countries are far more lethal. If we do not include the London and Madrid bombings in the 2004–2005 period, the overall FPA for attacks in Group 1 countries falls from 7.5 to 2.3.

Figure 3 shows that the number of attacks in the Group 2 countries climbs to a high point in 2014–2015, then declines sharply. The trend in the Group 1 countries is gradually upward. Correspondingly, as shown in Figure 4, the percentage of attacks in Group 2 countries declines as the percentage in Group 1 countries increases.

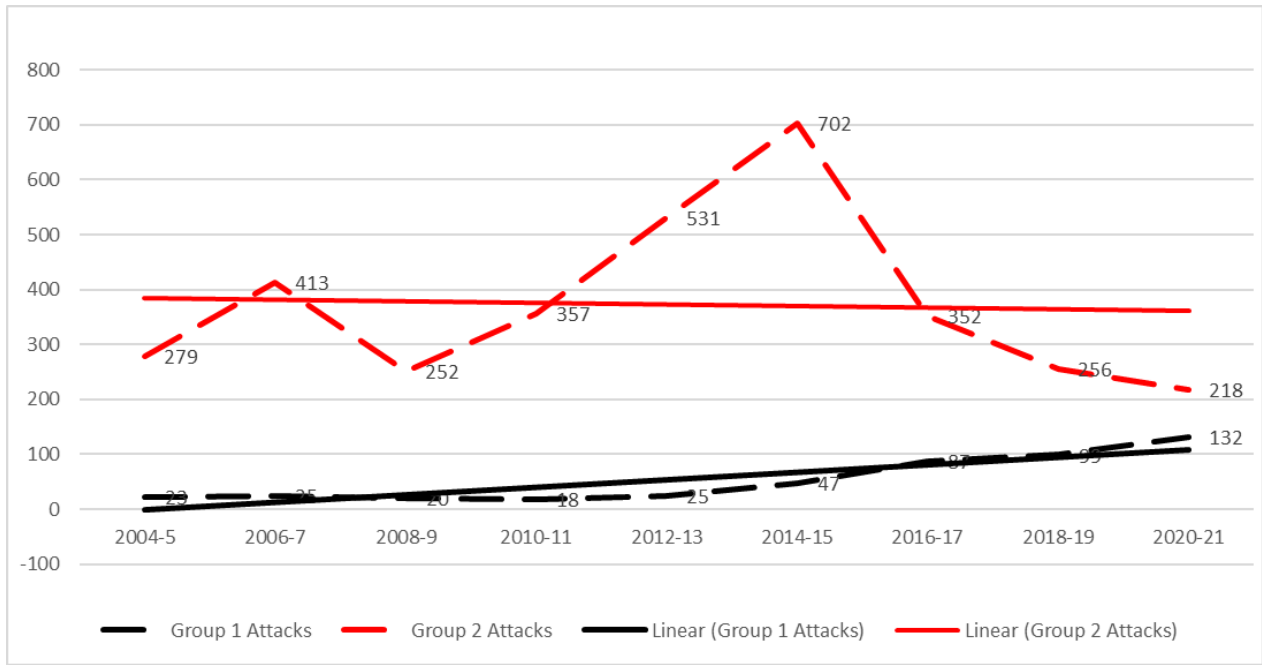


Figure 3. Number of Attacks in Country Groups Over Time

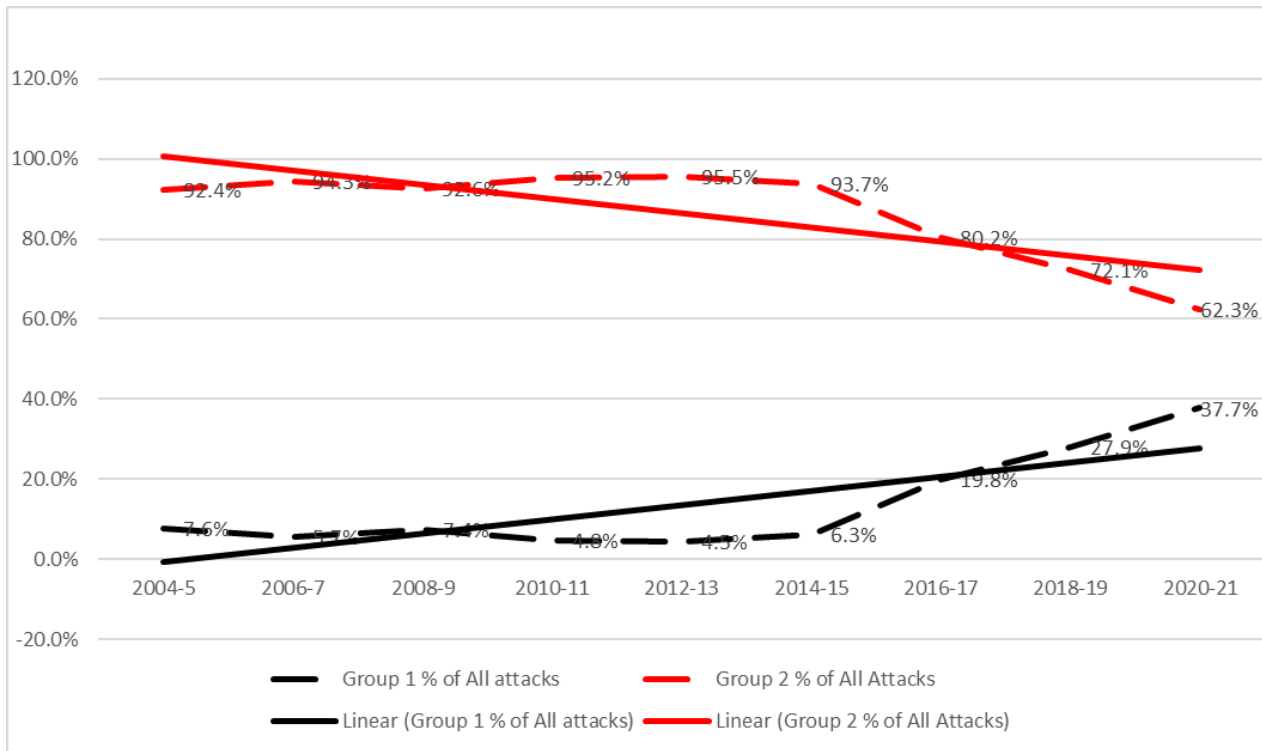


Figure 4. Percentage of Attacks in Country Groups Over Time

Total fatalities in Group 1 countries declined during the 18-year period covered in this analysis, but again this reflects the two statistical outliers (the Madrid and London attacks). Excluding these attacks, the number of fatalities reached a peak in the 2016–2017 period, then declined. Except for this one peak, the trend line gradually ascends. When we consider

only incidents with fatalities, there is a gradual increase in both Group 1 and Group 2 countries over time, but there is a gradual decline in the percentage of attacks in Group 2 countries and a gradual increase in the percentage in Group 1 countries.

As shown in Figure 5, the lethality of incidents with fatalities declined in the Group 1 countries and increased very gradually in the Group 2 countries. If, however, the attacks in Madrid and London are excluded (see Figure 6), there is a trend toward greater lethality in the Group 1 countries.

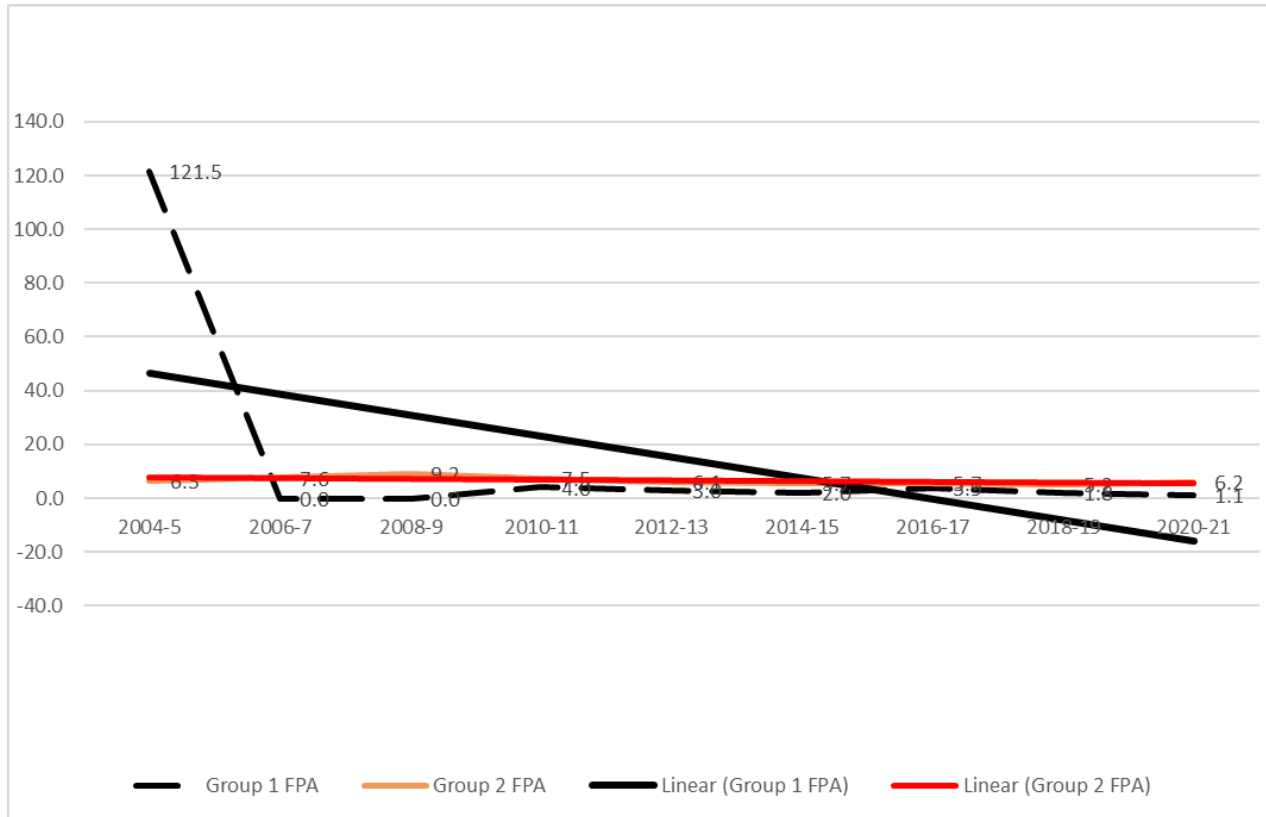


Figure 5. Lethality of Fatal Attacks by Country Group

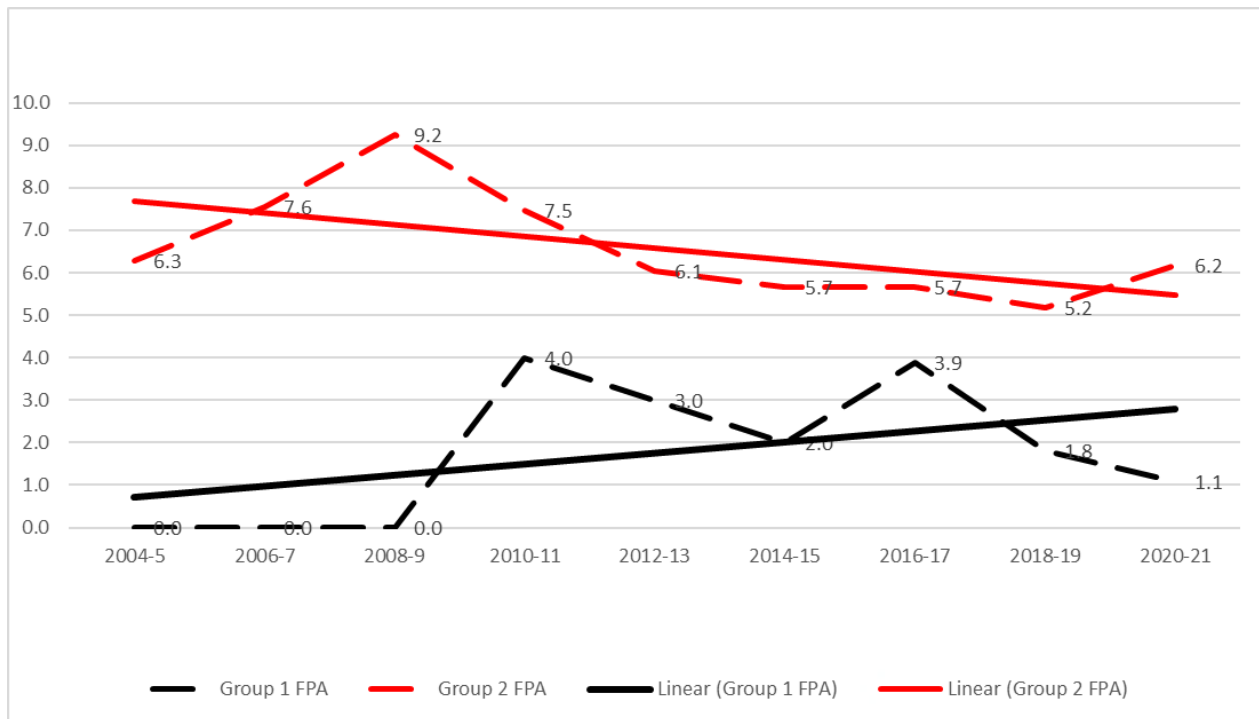


Figure 6. Lethality of Fatal Attacks by Country Group, Excluding the Madrid and London Bombings

In sum, Group 1 countries are experiencing an increasing percentage of the total number of attacks on public surface transportation and fatalities. The lethality of attacks in Group 1 countries, excluding the two outliers, is also increasing.

But what is happening in Group 2 countries where the number and percentage of attacks is decreasing slightly? In the following section, we explore these trends in detail.

VI. DETAILED ANALYSIS OF RECENT TRENDS IN GROUP 2 COUNTRIES

Group 2 countries are shown to have a higher level of violence, not simply because of a greater number of attacks (perhaps to be expected, since these countries contain a larger portion of the global population), but because the quality of the violence is different. There are more attacks that are part of long-running political and criminal insurgencies, guerrilla wars, and terrorist campaigns, and these attacks are particularly bloody.

These conflicts do not affect all of the countries in Group 2. A total of 75% of the recorded attacks and 63% of the total fatalities occurred in just 10 of the Group 2 countries. The next 10 countries were the sites of another 14.4% of the total attacks. If we rank the countries in order of total fatalities instead of total attacks, the top 10 countries account for 76.7% of the total fatalities in Group 2.

The qualitative difference in violence between Group 1 and Group 2 countries is indicated clearly by a comparison of the levels of violence. In terms of total fatalities, Spain would rank 7th, the United Kingdom would rank 19th, Taiwan would rank 28th, Belgium would rank 30th, and the United States would rank 31st among the Group 2 countries. In fact, if Group 1 were considered as a single country, it would rank only 7th in total number of fatalities among the Group 2 countries.

These statistics also confirm that outside of the most intense conflict areas, most of the Group 2 countries experience levels of violence that are comparable to that in Group 1 countries. Since the major difference between Group 1 and Group 2 countries is the greater violence of attacks in Group 2, we will first examine lethality issues.

NUMBER AND LETHALITY OF ATTACKS BY REGION

To create a point of reference for the analysis of Group 2 countries, we recap what we found in our study of Group 1 countries: There were 467 attacks between 2004 and 2021, most of which occurred in two regions, Europe (52%) and North America (36%). To reduce any reporting bias, we looked at only the 47 lethal attacks and found that those two regions still accounted for the majority of attacks, although the ranking was reversed: North America had 47% and Europe had 38%.

When four attacks that resulted in a far greater number of fatalities than the other attacks were excluded (Madrid in 2003, London in 2004, Taiwan and Brussels in 2016), the lethality in Group 1 was found to be very low—0.8 fatalities per attack. Nevertheless, we found the level to be increasing in both Europe and North America.

The first question we addressed when looking at Group 2 countries was this: Were there very high-lethality attacks similar to the attacks in Madrid, London, Brussels, and Taiwan, i.e., where the fatalities were so different from the rest that they skewed the results significantly? The answer is, No.

Five of the attacks in Group 2 countries did have high body counts:

- The July 11, 2006, bombing attack on commuter trains in Mumbai resulted in 189 people dead and 800 injured.
- The May 8, 2010, derailment of a passenger train in India killed 148 people.
- The April 14, 2014, bus station bombing in Nigeria killed 71 people.
- The February 2007 bombing of a train in India killed 68 people.
- The November 26, 2008, shooting at Mumbai's central train station killed 58 people. (This attack was part of a coordinated series of attacks in Mumbai by a 10-man terrorist team; in all, 166 were killed.)³

But whereas the 283 fatalities in the four deadliest incidents in the Group 1 countries accounted for more than 80% of the total number of fatalities between 2004 and 2021, the 534 fatalities in the five deadliest incidents in the Group 2 countries accounted for less than 8% the total of 6,837 fatalities. The contrast between Group 1 and Group 2 reflects the much higher overall level of violence in Group 2.

We also tested the impact of removing the two most lethal attacks on rankings by country, target group, attack method, and most lethal combinations and found that the results do not change. In other words, the fatality rate slopes downward without the huge gap between the heavy-casualty events and the other events that was found in Group 1.

Therefore, in this report we present charts and figures only for cases in which there is an interesting or illustrative difference in the frequency or lethality of attacks. Charts and figures showing only fatal attacks are presented in Appendixes A and B.

Table 4 shows that the overall FPA of attacks in Group 2 was 2.1, which is 1.2 times greater than the 1.8 FPA for Group 1 countries when the four most lethal attacks are included, and 2.6 times greater than for Group 1 countries when those four attacks are excluded (0.8 FPA). Of the regions with more than 100 attacks, only the Middle East and North Africa and Sub-Saharan Africa have an FPA higher than the overall average.

Table 5 shows that the overall FPA of fatal attacks in Group 2 is 6.3, i.e., 2.4 times greater than that of all attacks. The regions that are above the average in both cases shift somewhat, with three regions above the average in both Table 4 and Table 5—the Middle East; North Africa, Sub-Saharan Africa; and East Asia—and Central America and the Caribbean, which had a smaller number of attacks, but one of them (a criminal bus attack in Honduras in 2004) killed 24 people.

3 In April 2017, terrorists in Syria used VBIEDs (vehicle-borne improvised explosive devices) to attack a convoy of buses taking refugees out of Aleppo, killing 136 people. However, this attack is not counted in the data here as the target is considered a convoy and the attack occurred in a war zone.

Table 4. Fatalities and Lethality of Attacks by Region in Group 2 Countries

Region	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
South Asia	1696	50.5%	2934	41.6%	8890	48.0%	1.7	5.2
Middle East and North Africa	540	16.1%	1620	22.9%	3921	21.2%	3.0	7.3
Sub-Saharan Africa	425	12.6%	1678	23.8%	2504	13.5%	3.9	5.9
Southeast Asia	309	9.2%	236	3.3%	1157	6.3%	0.8	3.7
Russia and the NIS	171	5.1%	312	4.4%	1106	6.0%	1.8	6.5
South America	132	3.9%	46	0.7%	185	1.0%	0.3	1.4
East Asia	33	1.0%	123	1.7%	524	2.8%	3.7	15.9
Eastern Europe	24	0.7%	13	0.2%	54	0.3%	0.5	2.3
Central America & Caribbean	16	0.5%	86	1.2%	117	0.6%	5.4	7.3
Middle East & North Africa	10	0.3%	8	0.1%	46	0.2%	0.8	4.6
Central Asia	3	0.1%	1	0.0%	0	0.0%	0.3	0.0
Australasia & Oceania	1	0.0%	3	0.0%	0	0.0%	3.0	0.0
	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

Table 5. Fatalities and Lethality of Fatal Attacks by Region in Group 2 Countries

Region	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
South Asia	373	33.5%	2934	41.6%	6708	45.6%	7.9	18.0
Middle East and North Africa	331	29.7%	1620	22.9%	3431	23.3%	4.9	10.4
Sub-Saharan Africa	241	21.7%	1678	23.8%	2224	15.1%	7.0	9.2
Southeast Asia	75	6.7%	236	3.3%	736	5.0%	3.1	9.8
Russia and the NIS	40	3.6%	312	4.4%	976	6.6%	7.8	24.4
East Asia	15	1.3%	123	1.7%	387	2.6%	8.2	25.8
South America	15	1.3%	46	0.7%	88	0.6%	3.1	5.9
Central America & Caribbean	13	1.2%	86	1.2%	76	0.5%	6.6	5.8
Eastern Europe	4	0.4%	13	0.2%	49	0.3%	3.3	12.3
Middle East & North Africa	4	0.4%	8	0.1%	26	0.2%	2.0	6.5
Australasia & Oceania	1	0.1%	3	0.0%	0	0.0%	3.0	0.0
Central Asia	1	0.1%	1	0.0%	0	0.0%	1.0	0.0
TOTAL/PERCENTAGES/AVERAGES	1113	100.0%	7060	100.0%	14700	100.0%	6.3	13.2

Over time, attacks in South Asia, Southeast Asia, and the Middle East and North Africa have been decreasing after a peak in 2014–2015 (see Figure 7). In contrast, attacks in Sub-Saharan Africa have been increasing as jihadist terrorist groups have joined with separatist, criminal, and tribal groups in the region. In the past two years, there have been several bloody attacks in the region, including massacres of passengers on buses.

Figure 8 shows that the lethality in each region varies by time period, although lethality appears to increase up to a spike in 2014–2015, with a decline thereafter. (The spike resulted from the 2004 bus attack in Honduras.) Clear trends in fatal attacks are harder to discern for all regions, but the frequency and lethality in the regions listed above are generally substantiated (see Figures B1 and B2 in Appendix B).

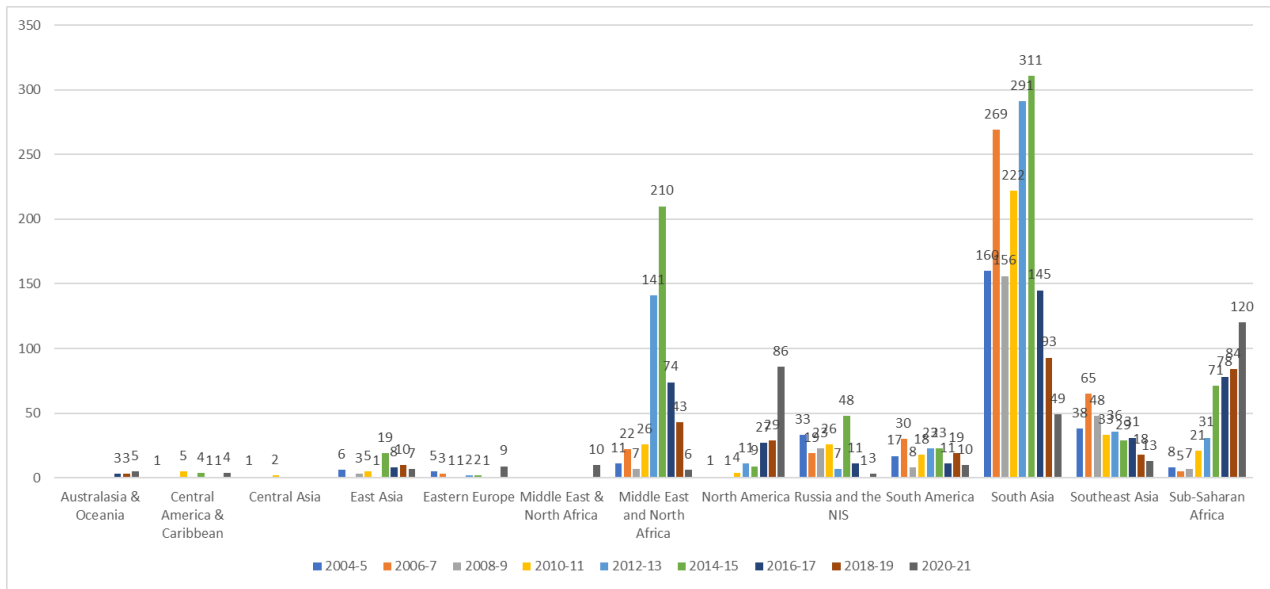


Figure 7. Attacks by Region in Group 2 Countries

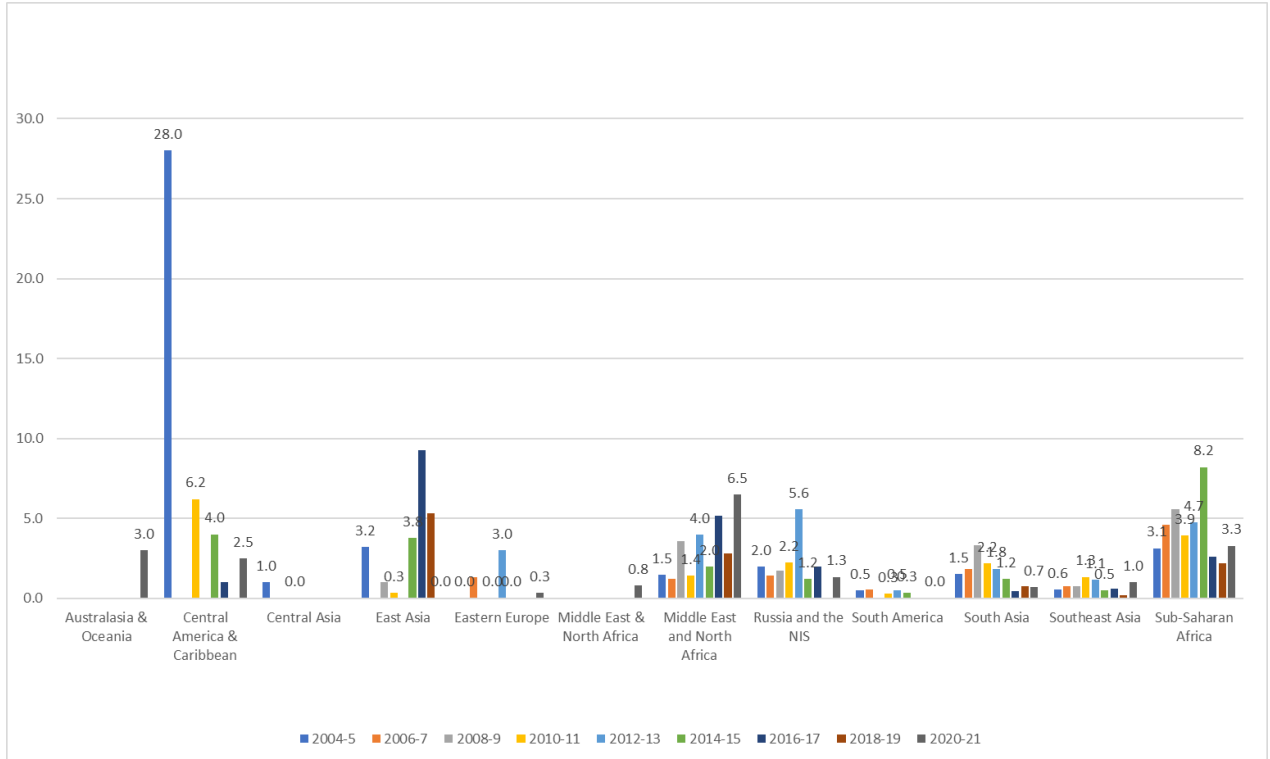


Figure 8. Lethality of Attacks by Region in Group 2 Countries

NUMBER AND LETHALITY OF ATTACKS BY COUNTRY

In the Group 1 countries, 80% of the 467 recorded attacks occurred in just eight countries: the United States, the United Kingdom, Germany, Spain, France, Canada, Chile, and Italy. Of these, the United States accounted for nearly 30%. The overall lethality was 0.8 FPA.

Again, the disparity does not reflect a reporting bias. When we considered only incidents with fatalities, the United States still led the Group 1 countries, with 42.6% of the attacks.

The United States, France, Germany, Japan, the United Kingdom, Taiwan, Belgium, and Australia, taken together, accounted for 85% of all the fatal attacks.

Among the Group 1 countries, the United States still leads in the number of total attacks and the number of fatal attacks, and those numbers have increased recently. While the lethality of these attacks remains low, the primary drivers of the statistics are attacks aimed at railway infrastructure to create disruption and attacks against transit employees and security guards. In the earlier report, we also noted that

An increasing number of attacks appear to be antisocial actions. Although some may be motivated by racial, religious, or ethnic prejudice, most appear to be random and unprovoked. Individuals who were apparently mentally disturbed were responsible for 31 of the total attacks and 8 of the fatal attacks, causing 8 of the 22 fatalities ... an increasing number of attacks are targeting operating and security personnel: 33 of the 139 attacks resulted in 9 of the 22 fatalities; 3 took place in 2016-17, 5 in 2018-19, and 26 in 2020-21. This is a growing problem that is receiving increasing attention in the transit industry.

Table 6 presents the number of attacks in the 82 countries in Group 2 and the fatalities, injuries, and lethality of the attacks. Countries in which the FPA is above the overall average of 2.1 are highlighted.

As with Group 1 countries, there are few surprises in the Group 2 countries where the most attacks have taken place. Seventy-five percent of the attacks occurred in 10 countries: India, Pakistan, Iraq, Bangladesh, Nepal, the Philippines, Thailand (particularly in its southern provinces), Colombia, the Russian Federation, and Nigeria. The first seven of these countries have long-standing insurgencies. Bangladesh also experienced a series of violent protests aimed at buses and other targets. Colombia's inclusion in the top 10 results from the FARC (Revolutionary Armed Forces of Colombia—People's Army) and ELN (Ejército de Liberación) insurgencies. In the Russian Federation, Chechen groups wage a continuing insurgency and terrorist campaign, and in Nigeria there is increasing activity by criminal gangs and jihadist groups such as Boko Haram.

When only fatal attacks are examined (see Table A1 in Appendix A), Syria, Somalia, Kenya, and Sri Lanka are in the top 10, reflecting increasing jihadist attacks in Africa (Kenya and Somalia) and civil wars in Syria and Sri Lanka. Colombia, Thailand, and Nepal are lower in rank, due to the relatively low lethality of attacks in those countries.

The overall average lethality of attacks in the Group 2 countries is 2.1 FPA. Attacks against buses—deliberate massacres—are among the highest-lethality attacks, i.e., those with an FPA at least four times the overall average (an FPA of 9.5 or more). The slaughter that is occurring in some Group 2 countries, particularly in Sub-Saharan Africa, is seldom given significant coverage in the western press. Examples of such attacks include:

- Two attacks in Niger with an FPA of 24 were carried out by jihadists using either explosives or automatic weapons against buses. The attack on March 31, 2021, killed 45 passengers.

-
- One of three attacks in the Central African Republic with an FPA of 16.0 was carried out by militias using automatic or semi-automatic weapons on August 25, 2015, killing 42 passengers.
 - An attack in the Republic of the Congo with an FPA of 4.3, carried out by rebels on a passenger train on September 30, 2016, killed 14 people.
 - Two attacks in Honduras with an FPA of 13.0 against buses, and one against operating and security personnel, were carried out by unknown groups or criminals. Automatic weapons were used against passengers of a bus on December 26, 2004, killing 24 people and injuring 14, and attackers killed eight bus drivers on November 26, 2015.
 - An attack in Guinea-Bissau with an FPA of 11, in which a land mine was placed on a bus by an unknown group, killed 11 people and injured 12 on March 16, 2005.

Of the nine Group 2 countries that had at least 100 attacks (i.e., at least 3% of the total), those with an FPA over the average were Nigeria (5.8), Iraq (3.0), the Russian Federation (2.3), and Pakistan (2.2), all of which have long-standing insurgencies. (Table A1 in Appendix A shows the distribution and lethality of attacks in these countries when only fatal attacks are included. Lethality, of course, is increased in these attacks, and the ranking in terms of frequency has already been discussed.)

Table 6. Attacks by Country in Group 2 Countries

Country	Attacks	%Attacks	Fatalities	%Fatalities	Injuries	%Injuries	FPA	IPA
India	726	21.6%	922	13.1%	3343	18.1%	1.3	4.6
Pakistan	680	20.2%	1478	20.9%	3646	19.7%	2.2	5.4
Iraq	274	8.2%	832	11.8%	2180	11.8%	3.0	8.0
Bangladesh	146	4.3%	63	0.9%	620	3.4%	0.4	4.2
Philippines	130	3.9%	129	1.8%	695	3.8%	1.0	5.3
Thailand	128	3.8%	49	0.7%	300	1.6%	0.4	2.3
Colombia	120	3.6%	46	0.7%	144	0.8%	0.4	1.2
Nigeria	110	3.3%	634	9.0%	814	4.4%	5.8	7.4
Russian Federation	101	3.0%	232	3.3%	796	4.3%	2.3	7.9
Nepal	97	2.9%	110	1.6%	423	2.3%	1.1	4.4
Turkey	78	2.3%	150	2.1%	595	3.2%	1.9	7.6
Syria	75	2.2%	451	6.4%	721	3.9%	6.0	9.6
Egypt	65	1.9%	36	0.5%	192	1.0%	0.6	3.0
Ukraine	65	1.9%	63	0.9%	104	0.6%	1.0	1.6
Kenya	58	1.7%	140	2.0%	624	3.4%	2.4	10.8
Somalia	48	1.4%	244	3.5%	187	1.0%	5.1	3.9
Sri Lanka	47	1.4%	361	5.1%	858	4.6%	7.7	18.3
South Africa	46	1.4%	11	0.2%	56	0.3%	0.2	1.2
Mozambique	35	1.0%	44	0.6%	124	0.7%	1.3	3.5
China	32	1.0%	123	1.7%	524	2.8%	3.8	16.4
Myanmar	27	0.8%	33	0.5%	42	0.2%	1.2	1.6
Yemen	23	0.7%	107	1.5%	142	0.8%	4.7	6.2
Mali	20	0.6%	134	1.9%	233	1.3%	6.7	11.7
Ethiopia	18	0.5%	140	2.0%	99	0.5%	7.8	5.5
Indonesia	17	0.5%	16	0.2%	81	0.4%	0.9	4.8
Algeria	12	0.4%	6	0.1%	28	0.2%	0.5	2.3
Republic of South Sudan	12	0.4%	68	1.0%	88	0.5%	5.7	7.3
Cameroon	11	0.3%	36	0.5%	9	0.0%	3.3	0.8
Georgia	10	0.3%	0	0.0%	1	0.0%	0.0	0.1
Lebanon	10	0.3%	33	0.5%	102	0.6%	3.3	10.2
Sudan	10	0.3%	9	0.1%	33	0.2%	0.9	3.3
Burundi	8	0.2%	6	0.1%	28	0.2%	0.8	3.5
Ghana	8	0.2%	1	0.0%	10	0.1%	0.1	1.3
Democratic Republic of the Congo	7	0.2%	30	0.4%	7	0.0%	4.3	1.0
Brazil	6	0.2%	0	0.0%	12	0.1%	0.0	2.0
Zimbabwe	6	0.2%	1	0.0%	15	0.1%	0.2	2.5
Burkina Faso	5	0.1%	21	0.3%	19	0.1%	4.2	3.8
Rwanda	5	0.1%	4	0.1%	59	0.3%	0.8	11.8
El Salvador	4	0.1%	26	0.4%	17	0.1%	6.5	4.3
Guatemala	4	0.1%	11	0.2%	41	0.2%	2.8	10.3
Kosovo	4	0.1%	3	0.0%	1	0.0%	0.8	0.3
Laos	4	0.1%	9	0.1%	38	0.2%	2.3	9.5
Serbia and Montenegro	4	0.1%	0	0.0%	0	0.0%	0.0	0.0
Argentina	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Bulgaria	3	0.1%	6	0.1%	32	0.2%	2.0	10.7
Central African Republic	3	0.1%	48	0.7%	3	0.0%	16.0	1.0
Honduras	3	0.1%	39	0.6%	14	0.1%	13.0	4.7
Iran	3	0.1%	12	0.2%	5	0.0%	4.0	1.7
Malaysia	3	0.1%	0	0.0%	1	0.0%	0.0	0.3
Uganda	3	0.1%	25	0.4%	16	0.1%	8.3	5.3
Albania	2	0.1%	2	0.0%	5	0.0%	1.0	2.5
Haiti	2	0.1%	7	0.1%	8	0.0%	3.5	4.0
Jamaica	2	0.1%	3	0.0%	2	0.0%	1.5	1.0
Libya	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Niger	2	0.1%	48	0.7%	7	0.0%	24.0	3.5
Qatar	2	0.1%	0	0.0%	1	0.0%	0.0	0.5
Russia	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Saudi Arabia	2	0.1%	1	0.0%	1	0.0%	0.5	0.5
Senegal	2	0.1%	1	0.0%	20	0.1%	0.5	10.0
Uzbekistan	2	0.1%	1	0.0%	0	0.0%	0.5	0.0
Angola	1	0.0%	3	0.0%	8	0.0%	3.0	8.0
Armenia	1	0.0%	2	0.0%	7	0.0%	2.0	7.0
Belarus	1	0.0%	15	0.2%	200	1.1%	15.0	200.0
Benin	1	0.0%	1	0.0%	5	0.0%	1.0	5.0
Bosnia and Herzegovina	1	0.0%	0	0.0%	3	0.0%	0.0	3.0
Djibouti	1	0.0%	0	0.0%	6	0.0%	0.0	6.0
Dominican Republic	1	0.0%	0	0.0%	35	0.2%	0.0	35.0
Ecuador	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Guinea-Bissau	1	0.0%	11	0.2%	12	0.1%	11.0	12.0
Guyana	1	0.0%	0	0.0%	19	0.1%	0.0	19.0
Jordan	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Kyrgyzstan	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Moldova	1	0.0%	2	0.0%	11	0.1%	2.0	11.0
Morocco	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Namibia	1	0.0%	0	0.0%	4	0.0%	0.0	4.0
North Korea	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Papua New Guinea	1	0.0%	3	0.0%	0	0.0%	3.0	0.0
Peru	1	0.0%	0	0.0%	10	0.1%	0.0	10.0
Republic of the Congo	1	0.0%	14	0.2%	0	0.0%	14.0	0.0
Tanzania	1	0.0%	3	0.0%	6	0.0%	3.0	6.0
Tunisia	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
United Arab Emirates	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Zambia	1	0.0%	1	0.0%	12	0.1%	1.0	12.0
TOTAL/PERCENTAGES/AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

Figure 9 shows a downward trend in the frequency of attacks in most of the top 10 Group 2 countries after reaching a peak in the years between 2008 and 2013; in Nigeria, however, there was an increase in later years.

Figure 10 indicates a general downward trend in lethality in India, Pakistan, and Nepal, and a mixture of trends for all the other countries. (The patterns for only fatal attacks shown Figures B3 and B4 in Appendix B are much more diverse, with no overall apparent trend.)

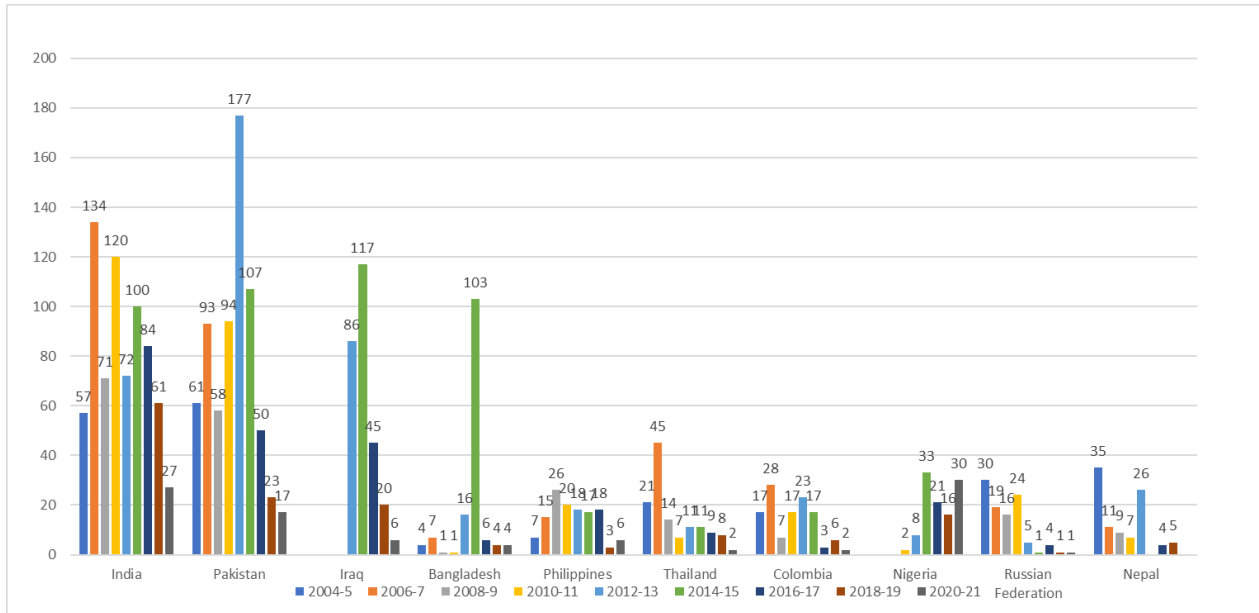


Figure 9. Attacks in the Top 10 Group 2 Countries Over Time

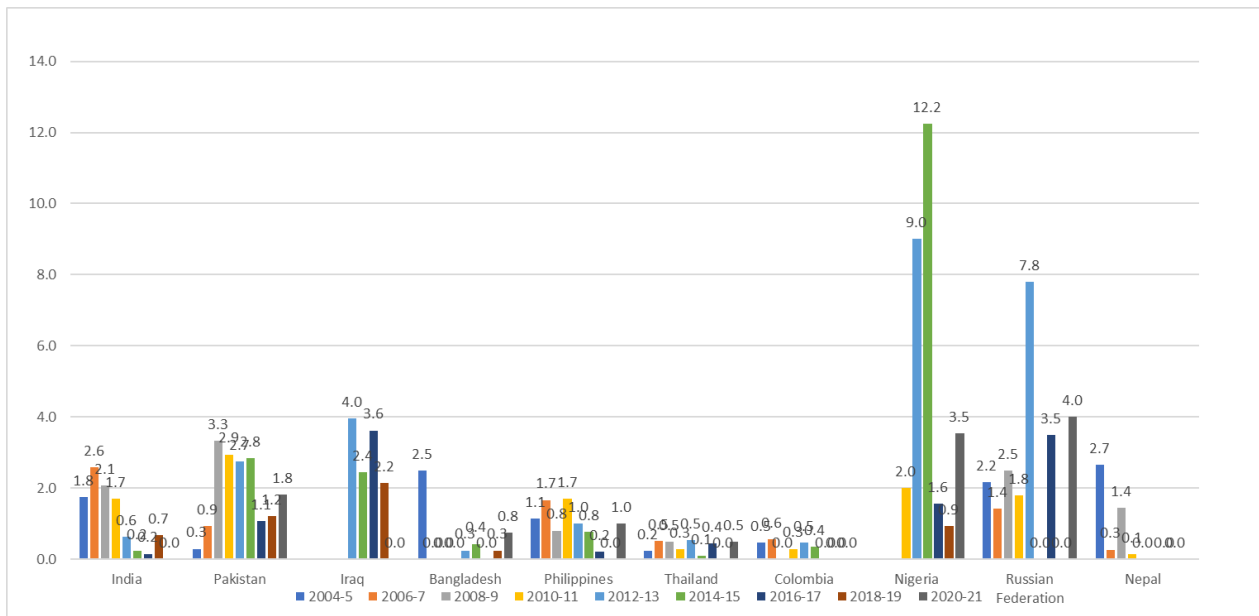


Figure 10. Lethality of Attacks in the Top 10 Group 2 Countries Over Time

NUMBER AND LETHALITY OF ATTACKS BY TARGET GROUP

In our study of Group 1 countries, we found that rail infrastructure was targeted in 27.9% of the attacks, which produced no fatalities; buses were targeted in 22% of the attacks, which produced 9.9% of the fatalities; passenger train stations had 16.9% of attacks and 58.0% of the fatalities; passenger trains had 15.2% of the attacks and 19.0% of the fatalities; operating and security personnel were targeted in 13.5% of the attacks and experienced 1.7% of the fatalities; and bus stations or stops were targeted in 3.4% of the attacks, resulting in 4.8% of the fatalities. The overall FPA was 0.8.

Most of the fatal attacks occurred in passenger train stations (in Madrid and Brussels) and on passenger trains (in London). But when the four major attacks are not included, operating and security personnel were the leading targets of fatal attacks (23.6% of the attacks).

Table 7 shows that almost 50% of the attacks in Group 2 countries were made against buses. Those attacks, combined with attacks on bus stations and stops, constitute close to 60% of the total attacks. This is not surprising, since people in Group 2 countries are far more reliant on public bus transportation than those in Group 1 countries. Nor is it surprising that the highest-lethality attacks are also those against buses and bus stations, especially given mass killings conducted in recent years. The proportion of attacks against passenger trains and train stations combined is just under 20%, which is lower than that in Group 1 countries.

The lethality of attacks against all passenger train targets (trains and stations) in Group 2 countries is not much above the average. If the two most lethal attacks against those targets were deleted, the combined FPA for passenger trains and passenger train stations would drop from 1.8 to 1.2. Attacks against rail infrastructure in Group 2 countries (such as the steady campaign of track sabotage carried out by Naxalite insurgents in India) result in very few fatalities. This is also the case in the economically advanced countries. Finally, attacks against operating or security personnel or facilities constitute just 2.7% of the total number of attacks in Group 2 countries. This is far lower than the proportion in Group 1 countries, where such attacks comprise nearly 14% of the total. However, these attacks are far more lethal in Group 2 countries. They have an FPA of 0.8, which is four times higher than the 0.2 FPA in Group 1.

The lethality of fatal attacks (shown in Table 8) is highest for attacks against passenger bus and passenger train targets.

Table 7. Attacks in Group Countries by Target Group

Target group	# Attacks	% of Attacks	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Buses	1630	48.5%	4483	63.5%	8913	48.2%	2.8	5.5
All Rail Infrastructure	618	18.4%	23	0.3%	206	1.1%	0.0	0.3
Passenger Trains	426	12.7%	802	11.4%	3552	19.2%	1.9	8.3
Bus Stations or Stops	373	11.1%	1402	19.9%	4315	23.3%	3.8	11.6
Passenger Train Stations	223	6.6%	276	3.9%	1344	7.3%	1.2	6.0
Operating or Security Personnel and Facilities	90	2.7%	74	1.0%	174	0.9%	0.8	1.9
TOTALS/PERCENTAGES/AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

Table 8. Fatal Attacks in Group 2 Countries by Target Group

Target Group	# Attacks	% Attacks	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Buses	778	69.9%	4483	63.5%	7059	48.0%	5.8	9.1
Bus Stations or Stops	179	16.1%	1402	19.9%	3735	25.4%	7.8	20.9
Passenger Trains	78	7.0%	802	11.4%	2599	17.7%	10.3	33.3
Passenger Train Stations	38	3.4%	276	3.9%	1149	7.8%	7.3	30.2
Operating or Security Personnel and Facilities	28	2.5%	74	1.0%	62	0.4%	2.6	2.2
All Rail Infrastructure	12	1.1%	23	0.3%	97	0.7%	1.9	8.1
TOTALS/PERCENTAGES/AVERAGES	1113	100.0%	7060	100.0%	14700	100.0%	6.3	13.2

The pattern of attacks is shown in Figure 11. There was a marked spike in attacks against buses and bus stations and stops in the 2014–2015 period, followed by a decline. Attacks on passenger trains and train stations follow a similar, although less dramatic, pattern. The frequency of fatal attacks (Figure 12) is also not significantly different.

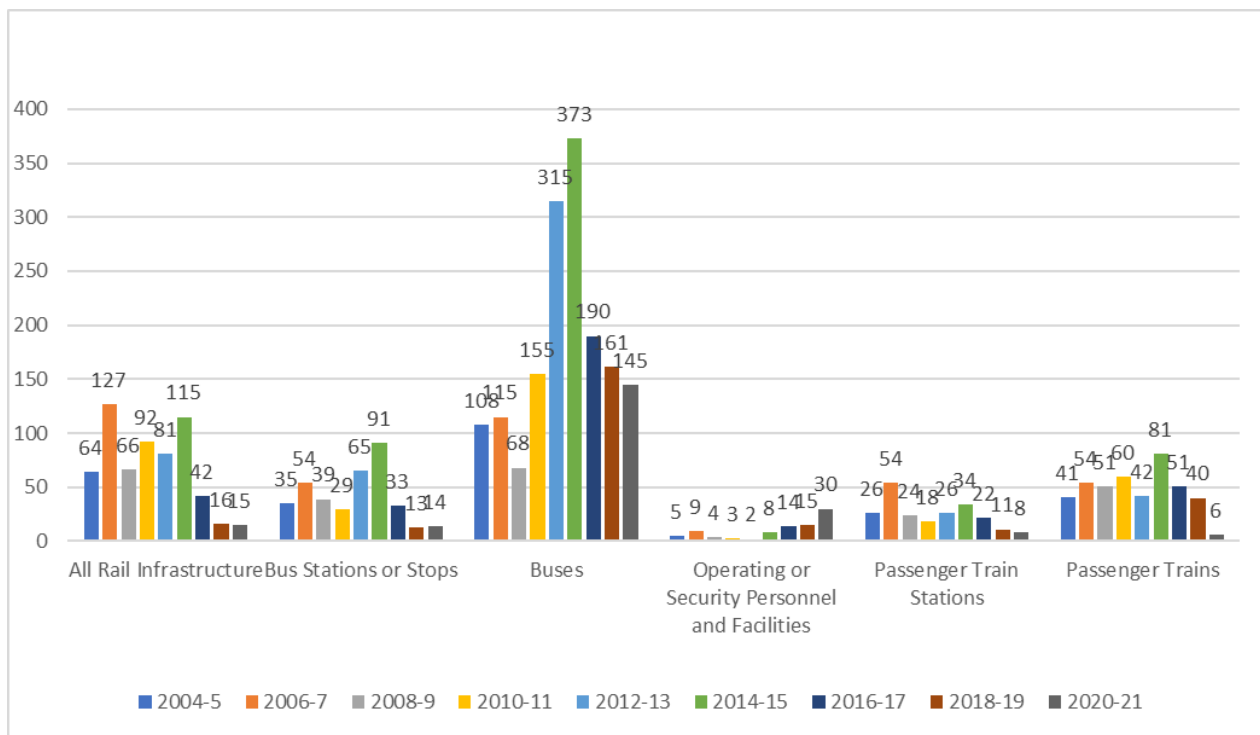


Figure 11. Pattern of Attacks in Group 2 Countries by Target Group

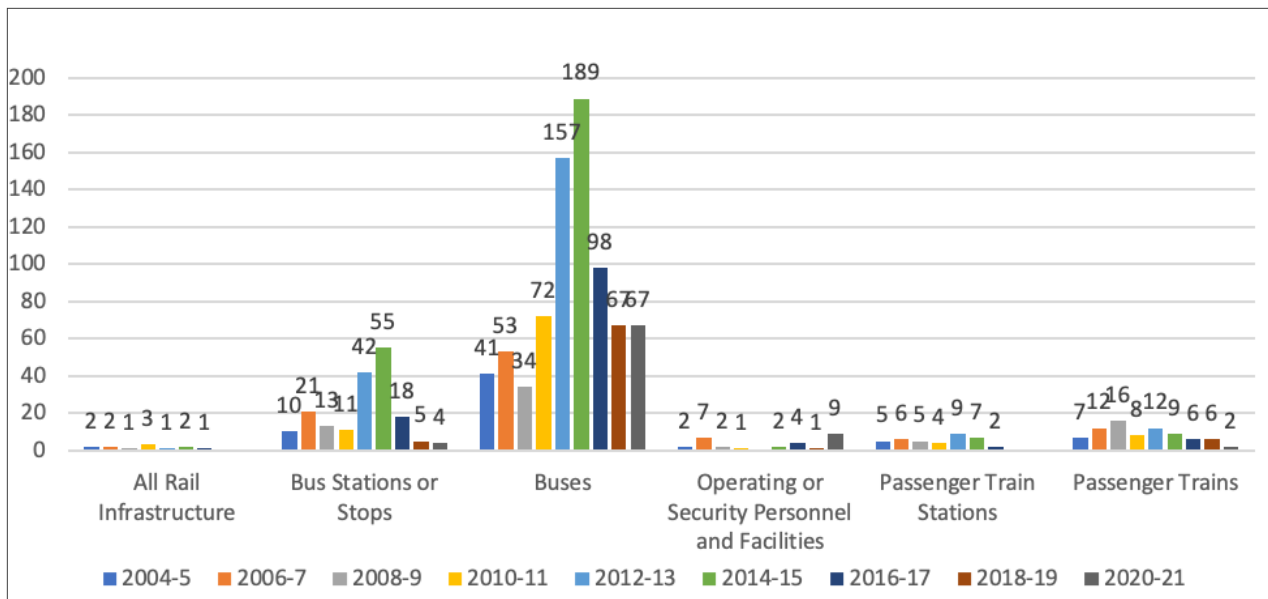


Figure 12. Pattern of Fatal Attacks in Group 2 Countries by Target Group

As for lethality, excluding the highest-lethality events does not significantly affect the data; and the pattern for the attacks with fatalities is not strikingly different from that of the total attacks (Figure 14), as was the case in Group 1 countries.

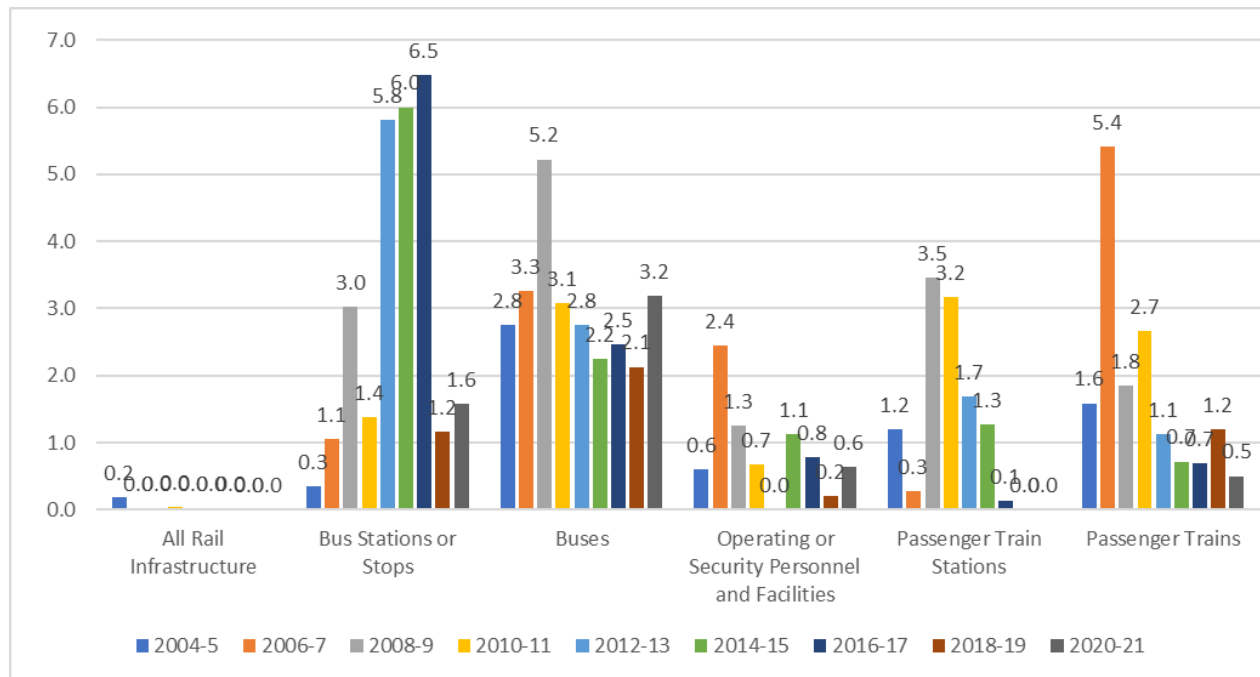


Figure 13. Lethality of Attacks in Group 2 Countries by Target Group

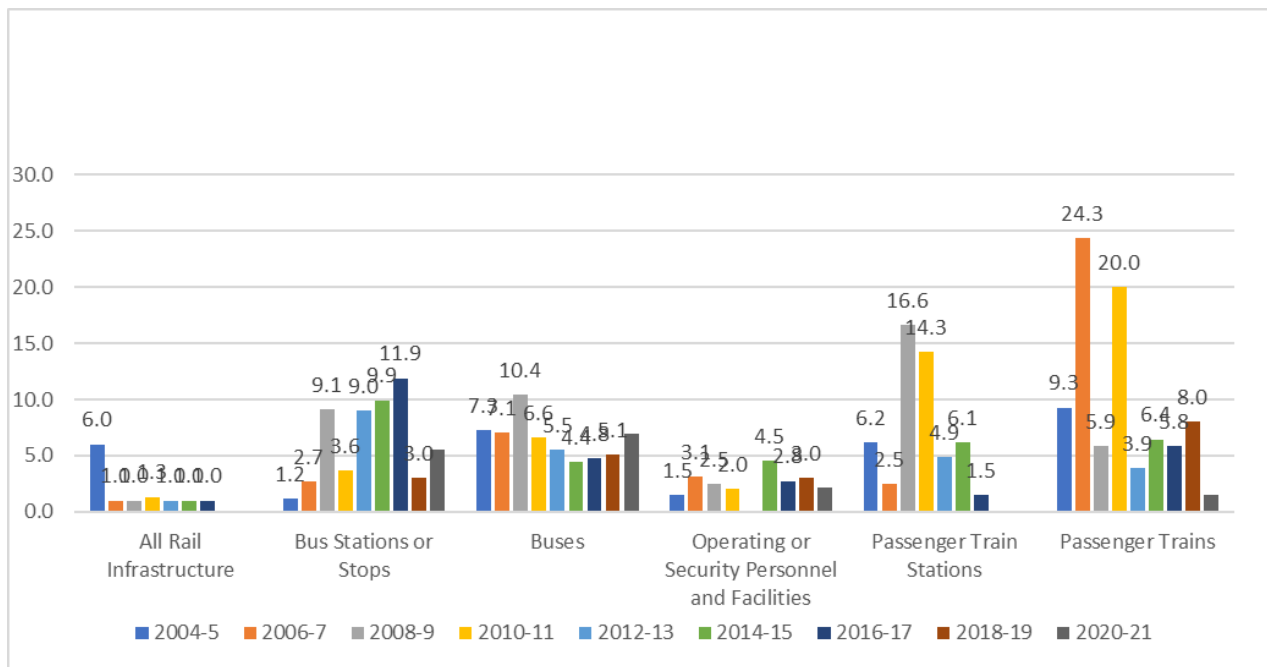


Figure 14. Lethality of Fatal Attacks in Group 2 Countries by Target Group

NUMBER AND LETHALITY OF ATTACKS BY ATTACK METHOD

While the possibility of future large-scale attacks in Group 1 countries should not be dismissed, there has been a decline in large-scale bombings. Although bombings are still the most lethal attack method in Group 1 countries, they comprise only 16% of all attacks in those countries between 2004 and 2021. When the bombings in Madrid, London, and Brussels are included, bombings caused 75.3% of the fatalities, but the other bombing attacks resulted in only two deaths.

Twenty-six percent of the attacks in Group 1 countries involved arson or improvised incendiary devices (IIDs), 17.3% involved mechanical sabotage, 15% involved explosives, and 13.7% were stabbings. Again, lethality was very low for all attack methods, especially when the four deadliest attacks are excluded.

As shown in Table 9, 88% of the attacks in Group 2 countries involved explosives (mostly IEDs [improvised explosive devices], VBIEDs [vehicle-borne improvised explosive devices], and grenades), automatic or semi-automatic weapons, arson and IIDs, or derailments. Of these, the attacks with higher-than-average lethality involved explosives and automatic or semi-automatic weapons.

The single vehicle ramming attack had unsurprisingly high lethality, as did massacres and murders (which are listed in the tables as executions, although we are not implying that they are a state-authorized taking of life). Excluding the most lethal attack in Group 2, the Naxalite derailment of a passenger train in which 148 persons died, lowers the FPA for derailments significantly, from 2.1 to 0.8, underscoring how lethal a single derailment can be. (There are

relatively few shifts in the frequency ranking of the attack methods in the fatal attacks, as shown in Table A2 in Appendix A.)

Table 9. Lethality of Attacks in Group 2 Countries by Attack Method

Attack Methods	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Explosives	1872	55.7%	4301	60.9%	13542	73.2%	2.3	7.2
Automatic or Semi-Automatic Weapons	432	12.9%	1439	20.4%	1735	9.4%	3.3	4.0
Arson & IIDs	423	12.6%	218	3.1%	721	3.9%	0.5	1.7
Derailment	206	6.1%	308	4.4%	1500	8.1%	1.5	7.3
Kidnapping, Hijacking, Robbery	173	5.1%	86	1.2%	144	0.8%	0.5	0.8
Multiple Weapons	89	2.6%	211	3.0%	295	1.6%	2.4	3.3
Unarmed/Other Assaults	45	1.3%	23	0.3%	67	0.4%	0.5	1.5
Unknown or Miscellaneous	43	1.3%	102	1.4%	187	1.0%	2.4	4.3
Executions	31	0.9%	307	4.3%	85	0.5%	9.9	2.7
Sabotage	24	0.7%	0	0.0%	0	0.0%	0.0	0.0
Stabbings	21	0.6%	56	0.8%	226	1.2%	2.7	10.8
Vehicle Ramming	1	0.0%	9	0.1%	2	0.0%	9.0	2.0
TOTAL/PERCENTAGES/ AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

Figures 15 and 16 present the patterns of attack over time, showing a peak in the use of arson and incendiary devices and explosives in the 2014–2015 period, followed by a decline. The trends in other attack methods do not present such a clear pattern.

The lethality of attacks in Group 2 countries spiked in the 2016–2017 period as a result of two train derailments in India. The other high-lethality peaks resulted from attack methods used in relatively few incidents, including vehicle rammings and executions. There was a peak in the lethality of stabbings in the 2014–2015 period, although there was no peak in the frequency of such attacks. While vehicle rammings are not unique to Group 2 countries, massacres and executions are. They are usually carried out by armed terrorists (or criminals) using automatic weapons or, in some cases, arson. (There were no significant differences in patterns of frequency or lethality in the attacks with fatalities, shown in Figures B5 and B6 in Appendix B.)

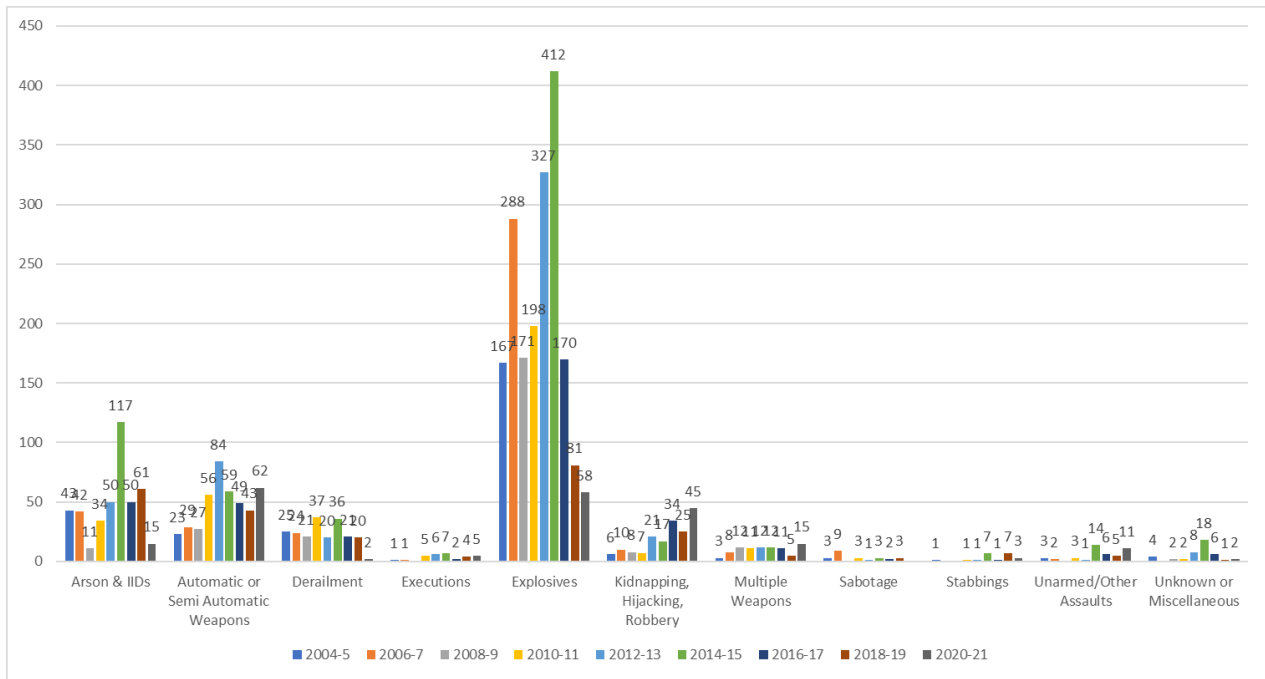


Figure 15. Frequency of Attacks in Group 2 Countries by Attack Method

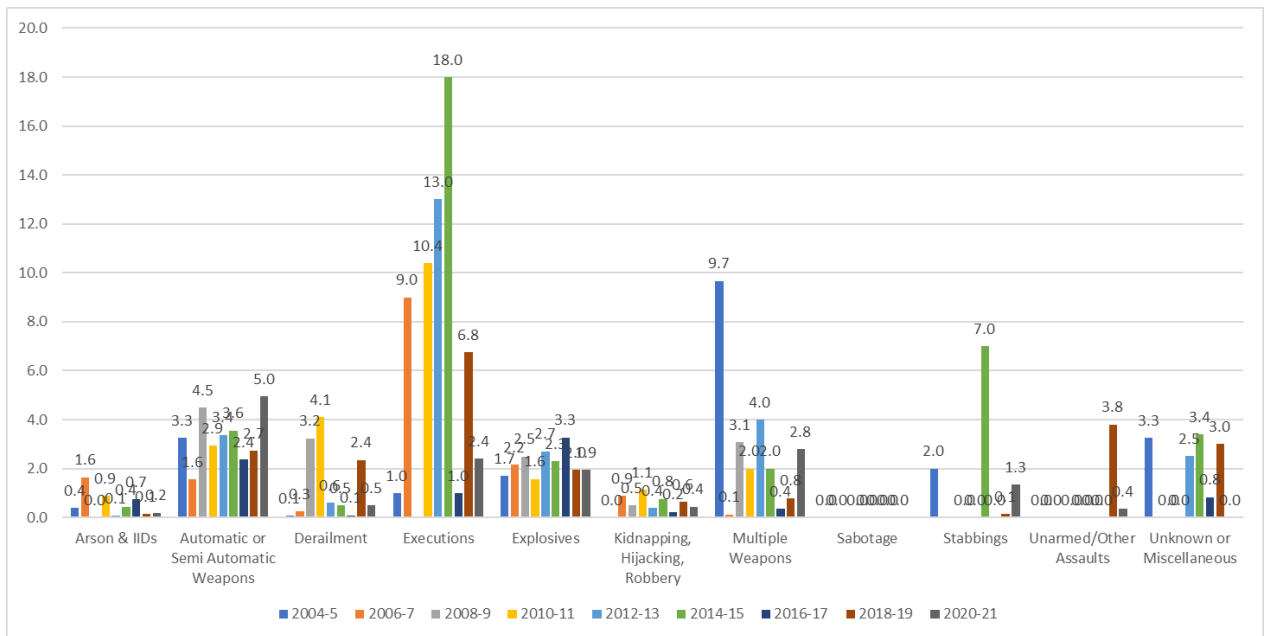


Figure 16. Lethality of Attacks in Group 2 Countries by Attack Method

NUMBER AND LETHALITY OF ATTACKS BY ATTACKER GROUP

The MTI database identifies perpetrators of attacks by name (if known) or by group identity (if claimed or confirmed). Using this information, we created 19 generic attacker groups. In a few cases (such as attacks in the southern provinces of Thailand, where there is an ongoing Islamist insurgency, or in Spain, where Basque separatist groups are active, or in

the so-called “red belt” of Indian states, where Naxalites or Communist Party of India-Maoist insurgents are active), we assigned attacks by unknown attackers to the generic groups.

Attacks by mentally disturbed individuals are designated as such on the basis of either a publicly revealed history of mental illness, a court determination of the need for mental health treatment, or available narrative descriptions suggesting mental issues. Once again, we emphasize that we are not mental health professionals, we make no specific diagnoses, and we do not suggest that people with mental illness should be treated as inherently dangerous.

We define jihadists as persons who subscribe to or claim to operate as part of a group motivated by jihadist ideologies exemplified by al Qaeda or Islamic State. This category does not include Hamas or Hezbollah.

In Group 1 countries, 70% of the attacks were conducted by unknown groups or individuals, ordinary criminals, or mentally disturbed individuals, and all of the attacks had relatively low lethality. The highest-lethality attacks in those countries were carried out by jihadists. The number of attacks by unknown persons, criminals, and mentally disturbed individuals increased over time. The number of jihadist attacks peaked early, then decreased. Attacks associated with the conflict in Northern Ireland and with Basque separatism have largely disappeared as a result of political settlements.

In the Group 2 countries, eight groups that were each responsible for at least 100 attacks accounted for 92% of all attacks (see Table 10). The attackers were separatist groups in India, Pakistan, and Nepal (as well as Thailand), jihadists, and criminals. In contrast to the pattern in Group 1 countries, relatively few attacks were carried out by apparently mentally disturbed individuals, anarchists, environmentalist extremists, or left-wing groups. The latter three categories combined were responsible for only 22 attacks. Jihadist attacks had the highest lethality of attacks by any group with over 100 attacks, 7.6 FPA (3.6 times the overall average of 2.1). The two attacks carried out by non-jihadist Islamic groups had an FPA of 13.0, more than six times the overall average.

Table 10. Lethality of Attacks in Group 2 Countries by Attacker Group

Attacker Group	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Unknown Group or Individuals	1539	45.8%	2326	32.9%	6872	37.1%	1.5	4.5
Indian Maoist or Communist Groups	352	10.5%	273	3.9%	494	2.7%	0.8	1.4
Miscellaneous Groups	331	9.9%	805	11.4%	2264	12.2%	2.4	6.8
Jihadist	325	9.7%	2466	34.9%	5005.5	27.1%	7.6	15.4
Indian Separatists (e.g., Kashmir, Assam)	163	4.9%	437	6.2%	1546	8.4%	2.7	9.5
Criminal	148	4.4%	138	2.0%	264	1.4%	0.9	1.8
Pakistani Separatists (e.g., Baluchistan, Sindhustan)	116	3.5%	172	2.4%	718	3.9%	1.5	6.2
Colombian (FARC or ETA) Groups	104	3.1%	33	0.5%	100	0.5%	0.3	1.0
Thai Islamic Groups	95	2.8%	30	0.4%	202	1.1%	0.3	2.1
Nepalese Maoist or Communist Groups	57	1.7%	94	1.3%	174	0.9%	1.6	3.1
Philippine Communist or Islamic Groups	55	1.6%	45	0.6%	145	0.8%	0.8	2.6
Kurdish Groups	50	1.5%	121	1.7%	451	2.4%	2.4	9.0
Mentally Disturbed Individual	20	0.6%	90	1.3%	214	1.2%	4.5	10.7
Non-Jihadists Islamic Groups	2	0.1%	26	0.4%	40	0.2%	13.0	20.0
Anarchist or Environmental Groups	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups	1	0.0%	4	0.1%	14	0.1%	4.0	14.0
Grand Total	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

After the 2014–2015 period, there was a significant decline in attacks by jihadist groups or individuals, Indian Communist-Maoist insurgents, and other separatist groups, particularly unknown groups or Individuals (see Figure 17). As shown in Figure 18, overall lethality also seems to have decreased in somewhat in most groups. There are insufficient numbers to discern trends for left-wing or environmentalist extremists. There were no major shifts in the frequency or lethality of attacks with fatalities (shown in Table A3 in Appendix A and Figures B7 and B8 in Appendix B.)

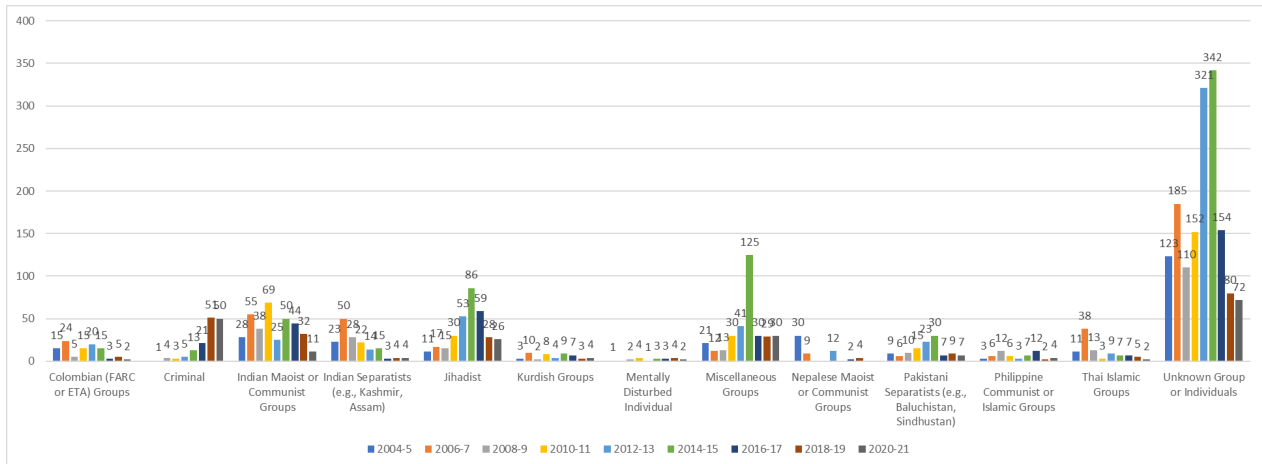


Figure 17. Frequency of Attacks in Group 2 Countries by Attacker Group

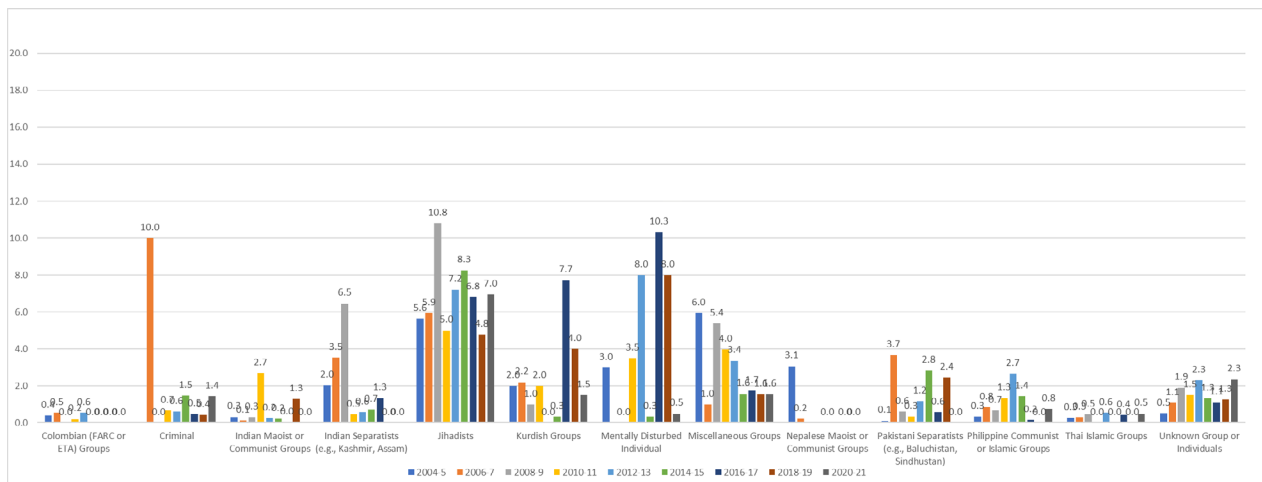


Figure 18. Lethality of Attacks in Group 2 Countries by Attacker Group

THE MOST LETHAL COMBINATIONS OF TARGET GROUP, ATTACK METHOD, AND ATTACKER GROUP

To determine which combinations of target group, attack method, and attacker group are the most frequent and which are the most lethal, we combined target group and attack method and then introduced attacker group. Because the possible number of combinations of even two factors is large, we set thresholds to determine which combinations to analyze.

It was also necessary to truncate many of the tables presented below. The final row (unless otherwise indicated) shows the total of attacks, fatalities, and injuries and the overall FPA and IPA for *all* combinations, not just those displayed; the percentages of each row are also those of *all* attacks, not just the subset shown.

Group 1 Countries

For Group 1 countries, we found 17 combinations that appeared in at least 10 attacks. (The full list of combinations is shown in Table A4 in Appendix A.) The 17 combinations, listed in Table 11, account for 407 of the 476 attacks during the period studied (85.5%) and produced 326 (92.6%) of the fatalities. Their combined FPA is 13.9.

Stabbings and arson and IIDs were each employed in four combinations, explosives were used in three combinations, and automatic or semi-automatic weapons were used in two combinations. Rail infrastructure was targeted in the 135 attacks by the first and third most frequently used combinations; 123 attacks targeted passenger train targets; 95 targeted buses and bus stations; and 54 targeted operating or security personnel.

The most frequent combinations of attack method and target category in Group 1 countries, listed in order, were

- Mechanical sabotage of rail infrastructure
- Arson and IID attacks against buses
- Arson and IID attacks against rail infrastructure
- Explosives used against passenger train stations.

The attack method and target group combination responsible for the most attacks was sabotage of rail infrastructure; the third most frequent combination was arson and IIDs used against rail infrastructure; the fourth most frequent combination was explosives used against passenger train stations. These findings substantiate the overall conclusions in the earlier report, i.e., that Group 1 countries have seen surges in anarchist or environmental sabotage against rail infrastructure and in antisocial crime.

Table 11. Most Lethal Combinations of Attack Method and Target Category Responsible for 10 or More Attacks in Group 1 Countries

Most Lethal Combinations - Attack Method & Target Group	# Attacks	% of All Attacks	Fatalities	% of All Fatalities	Injuries	% of All Injuries	FPA	IPA
Sabotage Used Against All Rail Infrastructure	75	15.8%	0	0.0%	0	0.0%	0.0	0.0
Arson & IIDs Used Against Buses	52	10.9%	26	7.4%	4	0.1%	0.5	0.1
Arson & IIDs Used Against All Rail Infrastructure	40	8.4%	0	0.0%	0	0.0%	0.0	0.0
Explosives Used Against Passenger Train Stations	27	5.7%	213	60.5%	2022	60.3%	7.9	74.9
Unarmed/Other Assaults Used Against Operating or Security Personnel and Facilities	25	5.3%	1	0.3%	37	1.1%	0.0	1.5
Stabbings Used Against Passenger Train Stations	23	4.8%	6	1.7%	57	1.7%	0.3	2.5
Kidnapping, Hijacking, Robbery Used Against Buses	21	4.4%	1	0.3%	8	0.2%	0.0	0.4
Explosives Used Against All Rail Infrastructure	20	4.2%	0	0.0%	0	0.0%	0.0	0.0
Arson & IIDs Used Against Passenger Train Stations	18	3.8%	0	0.0%	0	0.0%	0.0	0.0
Explosives Used Against Passenger Trains	18	3.8%	52	14.8%	753	22.5%	2.9	41.8
Stabbings Used Against Operating or Security Personnel and Facilities	17	3.6%	4	1.1%	9	0.3%	0.2	0.5
Arson & IIDs Used Against Passenger Trains	13	2.7%	2	0.6%	60	1.8%	0.2	4.6
Derailment Used Against Passenger Trains	13	2.7%	0	0.0%	16	0.5%	0.0	1.2
Automatic or Semi Automatic Weapons Used Against Buses	12	2.5%	4	1.1%	31	0.9%	0.3	2.6
Automatic or Semi Automatic Weapons Used Against Operating or Security Personnel and Facilities	12	2.5%	6	1.7%	9	0.3%	0.5	0.8
Stabbings Used Against Passenger Trains	11	2.3%	7	2.0%	55	1.6%	0.6	5.0
Stabbings Used Against Buses	10	2.1%	4	1.1%	27	0.8%	0.4	2.7
TOTAL/PERCENTAGES/AVERAGES FOR ALL COMBINATIONS	476	100.0%	352	100.0%	3354	100.0%	0.7	7.0

The most *lethal* combinations of attack method and target category in Group 1 countries, listed in order, were

- Explosives used against passenger train stations and trains
- Arson and IID attacks against buses
- Explosives used against passenger trains.

We also looked at six combinations in Group 1 countries that were responsible for fewer than 10 attacks but are interesting because they had an FPA above the overall average of 0.7. These combinations appeared in 21 attacks that resulted in a total of 26 fatalities, for an FPA of 1.7, as shown in Table 12. There was no particular pattern of attack methods, but all the attacks were directed against passenger train or bus targets.

Table 12. Most Lethal Combinations of Attack Method and Target Category with Less than 10 Attacks Each in Group 1 Countries

Most Lethal Combinations - Attack Method & Target Group	# Attacks	% of All Attacks	Fatalities	% of All Fatalities	Injuries	% of All Injuries	FPA	IPA
Executions Used Against Bus Stations or Stops	1	0.2%	5	1.4%	1	0.0%	5.0	1.0
Multiple Weapons Used Against Bus Stations or Stops	1	0.2%	4	1.1%	125	3.7%	4.0	125.0
Stabbings Used Against Bus Stations or Stops	3	0.6%	4	1.1%	17	0.5%	1.3	5.7
Automatic or Semi Automatic Weapons Used Against Passenger Trains	4	0.8%	4	1.1%	5	0.1%	1.0	1.3
Multiple Weapons Used Against Passenger Trains	2	0.4%	2	0.6%	21	0.6%	1.0	10.5
Unarmed/Other Assaults Used Against Passenger Train Stations	1	0.2%	1	0.3%	1	0.0%	1.0	1.0
TOTAL/PERCENTAGES/AVERAGES FOR ALL COMBINATIONS	476	100.0%	352	100.0%	3354	100.0%	0.7	7.0

Adding attacker groups to attack methods and target categories complicates the analysis but reveals some interesting patterns. A total of 11 three-element combinations appeared in 10 or more attacks in Group 1 countries, as shown in Table 13. (The full list of three-element combinations is given in Table A5 in Appendix A.) Together, these 11 combinations accounted for 195 (41%) of the 476 attacks, but only 4 of the 352 fatalities (less than 1%), with a combined FPA of only 0.02.

Firearms and knives were the weapons most frequently used in these combinations, and

some attacks involved multiple weapons. Unknown groups or individuals were present in five combinations, criminals in three, anarchist or environmental groups in two, and mentally disturbed individuals in one.

Rail infrastructure was the target group in the top three combinations and in one of the others. Buses and passenger trains were the targets in six combinations, and the attacker group in one combination was operating or security personnel or facilities.

Table 13. Most Lethal Combinations of Attacker Group, Attack Method, and Target Group with 10 or More Attacks in Group 1 Countries

Most Lethal Combinations - Attacker Group - Attack Method - Target Group	# Attacks	% Attacks	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Unknown Group or Individuals Using Sabotage Against All Rail Infrastructure	32	6.7%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Arson & IIDs Against All Rail Infrastructure	29	6.1%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Sabotage Against All Rail Infrastructure	28	5.9%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Buses	19	4.0%	0	0.0%	3	0.1%	0.0	0.2
Criminal Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	17	3.6%	1	0.3%	15	0.4%	0.1	0.9
Mentally Disturbed Individual Using Stabbings Against Passenger Train Stations	15	3.2%	3	0.9%	46	1.4%	0.2	3.1
Unknown Group or Individuals Using Explosives Against All Rail Infrastructure	14	2.9%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Kidnapping, Hijacking, Robbery Against Buses	11	2.3%	0	0.0%	4	0.1%	0.0	0.4
Criminal Using Arson & IIDs Against Buses	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Passenger Train Stations	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Explosives Against Passenger Train Stations	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
TOTAL/PERCENTAGES/AVERAGES FOR ALL COMBINATIONS	195	41.0%	4	1.1%	68	2.0%	0.3	4.5

In summary, the most common three-element combinations in Group 1 countries, listed in order, were

- Mechanical sabotage of rail infrastructure (primarily tracks) by unknown attackers
- Arson or IID attacks on rail infrastructure (primarily tracks) by anarchists or environmentalist extremists
- Mechanical sabotage of rail infrastructure (primarily tracks) by anarchists or environmentalist extremists.

However, the most lethal three-element combination in Group 1 countries was stabbings in train stations by mentally disturbed individuals.

It is important to point out that all of the attacks by these combinations in Group 1 countries had low lethality.

We examined 14 additional combinations that were involved in fewer than 10 attacks but those attacks had an FPA higher than the average of 0.7—in some cases, significantly higher. The 14 combinations appeared in 32 attacks that produced a total of 320 fatalities and had a very high overall FPA of 10.0, which is 13.5 times the overall average (see Table 14).

Jihadists were an element in 2 of the 13 combinations, and mentally disturbed individuals were an element in 6 of the combinations. The most lethal attacks, not surprisingly, were the 2004 jihadist attack on the train station in Madrid and the 2016 attack on the main Brussels train station, in which a total of 211 people were killed and 1,970 were injured.

Table 14. Most Lethal Combinations of Attacker Group, Attack Method, and Target Group in Group 1 Countries: Combinations with Fewer than 10 Attacks

Most Lethal Combinations - Attacker Group - Attack Method - Target Group	# Attacks	% of Fatal	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Mentally Disturbed Individual Using Stabbings Against Passenger Trains	8	1.7%	7	2.0%	43	1.3%	0.9	5.4
Jihadists Using Explosives Against Passenger Trains	5	1.1%	52	14.8%	729	21.7%	10.4	145.8
Jihadists Using Explosives Against Passenger Train Stations	4	0.8%	211	59.9%	1974	58.9%	52.8	493.5
Criminal Using Explosives Against Passenger Train Stations	3	0.6%	2	0.6%	0	0.0%	0.7	0.0
Jihadists Using Stabbings Against Passenger Train Stations	3	0.6%	2	0.6%	2	0.1%	0.7	0.7
Mentally Disturbed Individual Using Vehicle Ramming Against Bus Stations or Stops	3	0.6%	2	0.6%	15	0.4%	0.7	5.0
Unknown Group or Individuals Using Stabbings Against Operating or Security Personnel and Facilities	3	0.6%	2	0.6%	0	0.0%	0.7	0.0
Criminal Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.4%	2	0.6%	3	0.1%	1.0	1.5
Mentally Disturbed Individual Using Multiple Weapons Against Passenger Trains	2	0.4%	2	0.6%	21	0.6%	1.0	10.5
Mentally Disturbed Individual Using Stabbings Against Bus Stations or Stops	2	0.4%	3	0.9%	17	0.5%	1.5	8.5
Mentally Disturbed Individual Using Arson & IIDs Against Buses	2	0.4%	26	7.4%	0	0.0%	13.0	0.0
Criminal Using Arson & IIDs Against Passenger Trains	1	0.2%	1	0.3%	16	0.5%	1.0	16.0
Criminal Using Stabbings Against Passenger Train Stations	1	0.2%	1	0.3%	0	0.0%	1.0	0.0
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Passenger Train Stations	1	0.2%	1	0.3%	1	0.0%	1.0	1.0
Right Wing Groups Using Stabbings Against Bus Stations or Stops	1	0.2%	1	0.3%	0	0.0%	1.0	0.0
Mentally Disturbed Individual Using Multiple Weapons Against Bus Stations or Stops	1	0.2%	4	1.1%	125	3.7%	4.0	125.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Passenger Trains	1	0.2%	4	1.1%	1	0.0%	4.0	1.0
Criminal Using Executions Against Bus Stations or Stops	1	0.2%	5	1.4%	1	0.0%	5.0	1.0
TOTAL/PERCENTAGES/AVERAGES OF ALL COMBINATIONS	44	9.2%	328	93.2%	2948	87.9%	100.2	814.8

Group 2 Countries

The Group 2 countries experienced 3,360 attacks between 2004 and 2021—8.9 times the number of attacks in the Group 1 countries—so the threshold for the combinations of target group and attack methods by number of attacks increases to 89 (8.9 x 10). We found 9 combinations of the two elements, shown in Table 15. These combinations accounted for 2,885 (85.9%) of the attacks and were responsible for 5,897 (83.5%) of the 7,060 fatalities experienced in Group 2 countries.

Explosives were used in five of the attacks in which this combination appears, whereas every other attack method appears only once. Explosives were the attack method in 1,855 (55.2%) of the attacks in Group 2 countries, which resulted in 4,100 (58.1%) of the fatalities.

A total of 1,278 attacks using explosives occurred on buses and bus stations or stops and passenger trains and train stations, resulting in the high number of casualties. (The complete list is presented in Table A6 in Appendix A.)

Table 15. Most Lethal Combinations of Attack Method and Target Group in Attacks in Group 2 Countries (Combinations Found in More Than 89 Attacks)

Group 2 Attack Methods and Target Group Combinations	Attacks	% of All Attacks	Fatalities	% of All Fatalities	Injuries	% of All Injuries	FPA	IPA
Explosives Used Against Buses	679	20.2%	2383	33.8%	6256	33.8%	3.5	9.2
Explosives Used Against All Rail Infrastructure	577	17.2%	22	0.3%	191	1.0%	0.0	0.3
Arson & IIDs Used Against Buses	350	10.4%	150	2.1%	635	3.4%	0.4	1.8
Explosives Used Against Bus Stations or Stops	337	10.0%	1358	19.2%	4255	23.0%	4.0	12.6
Automatic or Semi Automatic Weapons Used Against Buses	335	10.0%	1256	17.8%	1404	7.6%	3.7	4.2
Derailment Used Against Passenger Trains	204	6.1%	307	4.3%	1499	8.1%	1.5	7.3
Explosives Used Against Passenger Train Stations	159	4.7%	161	2.3%	1042	5.6%	1.0	6.6
Kidnapping, Hijacking, Robbery Used Against Buses	141	4.2%	84	1.2%	120	0.6%	0.6	0.9
Explosives Used Against Passenger Trains	103	3.1%	176	2.5%	933	5.0%	1.7	9.1
Totals/Percentages/Averages for All Combinations	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

A total of 15 combinations were found in attacks that had an FPA higher than the overall average of 2.1 regardless of how many times the combination appears. There were 1,481

such attacks (44.1% of the total), resulting 5,921 fatalities (83.9% of the total). The attacks, which are ranked by lethality in Table 16, had an overall FPA of 4.0, which is only 1.9 times the overall average of 2.1. This underscores the point made earlier that there is much less difference between the “average” attack and the “most lethal” attack in Group 2 countries. The overall level of violence in attacks on public surface transportation is high across Group 2 countries, whereas in Group 1 countries, most of those attacks have very low fatality rates and the total number of fatalities is driven by a few statistical outliers.

Attacks involving the 15 combinations of attack method and target category were 5.3 times more lethal than the average attack. The very high lethality of the bombs used against trains in Group 2 countries reflects the July 11, 2006, jihadist attack against commuter trains in Mumbai during rush hour. This was probably the most sophisticated attack involving this combination, well timed and executed. The next most lethal were the extremely brutal execution-style attacks or mass murders of bus passengers. Such executions were directed against operating and security personnel as well. Also highly lethal were attacks involving automatic weapons and stabbings, such as the multiple stabbings on March 1, 2014, in Kunming, China (killing 31 and injuring 143), along with the November 25, 2018, vehicle ramming attack against a bus stop in Lushan City, China, that killed 9 people and injured 2.

Table 16. Lethality of the Combination of Attack Method and Target Category in Attacks in Group 2 Countries (Combinations with Greater Than Average Lethality)

Group 2 Attack Methods and Target Group Combinations	Attacks	% of All Attacks	Fatalities	% of All Fatalities	Injuries	% of All Injuries	FPA	IPA
Explosives Used Against Passenger Trains	1	0.0%	189	2.7%	800	4.3%	189.0	800.0
Executions Used Against Buses	26	0.8%	292	4.1%	85	0.5%	11.2	3.3
Vehicle Ramming Used Against Bus Stations or Stops	1	0.0%	9	0.1%	2	0.0%	9.0	2.0
Automatic or Semi Automatic Weapons Used Against Passenger Train Stations	9	0.3%	69	1.0%	110	0.6%	7.7	12.2
Automatic or Semi Automatic Weapons Used Against Passenger Train Stations	1	0.0%	7	0.1%	5	0.0%	7.0	5.0
Stabbings Used Against Passenger Train Stations	5	0.1%	32	0.5%	173	0.9%	6.4	34.6
Multiple Weapons Used Against Buses	44	1.3%	187	2.6%	204	1.1%	4.3	4.6
Explosives Used Against Bus Stations or Stops	337	10.0%	1358	19.2%	4255	23.0%	4.0	12.6
Automatic or Semi Automatic Weapons Used Against Buses	335	10.0%	1256	17.8%	1404	7.6%	3.7	4.2
Unknown or Miscellaneous Used Against Buses	24	0.7%	86	1.2%	145	0.8%	3.6	6.0
Explosives Used Against Buses	679	20.2%	2383	33.8%	6256	33.8%	3.5	9.2
Executions Used Against Operating or Security Personnel and Facilities	4	0.1%	14	0.2%	0	0.0%	3.5	0.0
Stabbings Used Against Buses	8	0.2%	23	0.3%	20	0.1%	2.9	2.5
Unknown or Miscellaneous Used Against Operating or Security Personnel and Facilities	2	0.1%	5	0.1%	2	0.0%	2.5	1.0
Unknown or Miscellaneous Used Against Bus Stations or Stops	5	0.1%	11	0.2%	17	0.1%	2.2	3.4
Totals/Percentages/Averages for All Combinations	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

The most common combinations of attack method and target category in Group 2 countries, listed in order, were

- Attacks on buses using explosives
- Attacks on rail infrastructure, sometimes leading to derailments
- Arson and IID attacks on buses.

Excluding such attacks that occurred fewer than 10 times (therefore excluding the 2006 Mumbai passenger train attack), the most lethal combinations of attack method and target category in Group 2 countries, in order of lethality, were

- Execution-style mass murders (26 attacks) of bus passengers (11.2 FPA)
- Multiple-weapons assaults on buses (44 attacks) (4.3 FPA)
- Attacks on bus stations involving explosives (337 attacks) (4.0 FPA)
- Attacks on buses involving automatic or semi-automatics weapons (335 attacks) (3.7 FPA)
- Unknown or miscellaneous attack methods (such as mortars or RPGs [rocket-propelled grenades]) used against buses (24 attacks) (3.6 FPA)
- Explosives used against buses (679 attacks) (3.5 FPA).

Adding attacker groups to the combination results in the 7 combinations shown in Table 17. These combinations appeared in 1,379 (41%) of all the attacks and produced 2,667 (37.8%) of the total fatalities. Together, they have an FPA of 1.9, which is slightly lower than the overall average of 2.1. (The full list of three-element combinations is presented in Table A7 in Appendix A.)

As Table 17 indicates, unknown groups or individuals were the predominant attackers, as was the case in Group 1 countries, followed by jihadists, Naxalite insurgents in India, and miscellaneous groups, such as Syrian rebels and pro-Russian separatists in Ukraine before the 2022 Russian invasion. Seven of the attacks involving these combinations used explosives, two involved fire (arson and IIDs), one involved automatic weapons, and one was a derailment. The highest lethality was achieved in attacks with explosives. The next-highest lethality was in attacks using automatic weapons. Jihadists were clearly the most lethal attackers.

Table 17. Lethality of Combinations of Attacker Group, Attack Method, and Target Category in Attacks in Group 2 Countries (Combinations with More Than 89 Attacks)

Group 2: Attacker Groups, Attack Methods and Target Group Combinations	Attacks	% of All Attacks	Fatalities	% of All Fatalities	Injuries	% of All Injuries	FPA	IPA
Unknown Group or Individuals Using Explosives Against Buses	393	11.7%	971	13.8%	3136	16.9%	2.5	8.0
Unknown Group or Individuals Using Explosives Against All Rail Infrastructure	332	9.9%	6	0.1%	65	0.4%	0.0	0.2
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Buses	178	5.3%	583	8.3%	655	3.5%	3.3	3.7
Unknown Group or Individuals Using Explosives Against Bus Stations or Stops	161	4.8%	360	5.1%	1396	7.5%	2.2	8.7
Indian Maoist or Communist Groups Using Explosives Against All Rail Infrastructure	106	3.2%	0	0.0%	2	0.0%	0.0	0.0
Jihadists Using Explosives Against Buses	106	3.2%	690	9.8%	1425	7.7%	6.5	13.4
Unknown Group or Individuals Using Derailment Against Passenger Trains	103	3.1%	57	0.8%	507	2.7%	0.6	4.9
Totals/Percentages/Averages for All Combinations	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

To complete the analysis of Group 2 combinations, we looked at combinations involved in fewer than 89 attacks where the FPA was higher than 2.1. There were 58 such combinations, listed in Table 18. Those combinations have FPAs from 2.2 to 189.0. The 12 attack combinations whose lethality was greater than 10.0 were involved in 119 attacks. All were against buses, trains, and train stations. Jihadists conducted 110 (92.4%) of the 119 attacks, and a scattering of other groups were involved in the other 9. Explosives were

used in 94 (79%) of the attacks, and 14 (11.8%) of the attacks were executions. These methods together accounted for 90.8% of the attacks. In addition, 4 attacks involved arson or IIDs, 3 involved automatic or semi-automatic weapons, 2 involved multiple weapons, 1 involved stabbings, and 1 (in which 5 people were killed) involved unarmed attackers.

The number of execution-style attacks has grown steadily, particularly since 2015. Most of these attacks have taken place in South Asia (India and Pakistan) and Sub-Saharan Africa (Nigeria and Somalia).

Table 18. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 2 Countries (Combinations with Higher Than Average Lethality)

Group 2: Attacker Group, Attack Methods and Target Group Combinations	# Attacks	% of All Attacks	# Fatalities	% of All Fatalities	# Injuries	% of All Injuries	FPA	IPA
Jihadists Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	1	0.0%	59	0.8%	104	0.6%	59.0	104.0
Indian Separatists (e.g., Kashmir, Assam) Using Multiple Weapons Against Buses	1	0.0%	31	0.4%	62	0.3%	31.0	62.0
Criminal Using Multiple Weapons Against Buses	1	0.0%	30	0.4%	0	0.0%	30.0	0.0
Jihadists Using Explosives Against Passenger Trains	11	0.3%	220	3.1%	946	5.1%	20.0	86.0
Jihadists Using Executions Against Buses	10	0.3%	166	2.4%	48	0.3%	16.6	4.8
Jihadists Using Arson & IIDs Against Passenger Trains	4	0.1%	66	0.9%	18	0.1%	16.5	4.5
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Buses	1	0.0%	15	0.2%	0	0.0%	15.0	0.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Executions Against Buses	3	0.1%	45	0.6%	30	0.2%	15.0	10.0
Non-Jihadists Islamic Groups Using Automatic or Semi Automatic Weapons Against Buses	2	0.1%	26	0.4%	40	0.2%	13.0	20.0
Miscellaneous Groups Using Executions Against Buses	1	0.0%	12	0.2%	0	0.0%	12.0	0.0
Jihadists Using Stabbings Against Buses	1	0.0%	11	0.2%	6	0.0%	11.0	6.0
Jihadists Using Explosives Against Bus Stations or Stops	83	2.5%	868	12.3%	2008.5	10.9%	10.5	24.2
Miscellaneous Groups Using Explosives Against Passenger Train Stations	6	0.2%	60	0.8%	198	1.1%	10.0	33.0
Mentally Disturbed Individual Using Vehicle Ramming Against Bus Stations or Stops	1	0.0%	9	0.1%	2	0.0%	9.0	2.0
Miscellaneous Groups Using Stabbings Against Passenger Train Stations	4	0.1%	32	0.5%	171	0.9%	8.0	42.8
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Buses	35	1.0%	280	4.0%	620	3.4%	8.0	17.7
Nepalese Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Buses	2	0.1%	15	0.2%	2	0.0%	7.5	1.0
Mentally Disturbed Individual Using Arson & IIDs Against Buses	4	0.1%	30	0.4%	85	0.5%	7.5	21.3
Miscellaneous Groups Using Explosives Against Passenger Trains	7	0.2%	52	0.7%	203	1.1%	7.4	29.0
Miscellaneous Groups Using Unknown or Miscellaneous Against Buses	8	0.2%	54	0.8%	81	0.4%	6.8	10.1
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.1%	13	0.2%	5	0.0%	6.5	2.5
Indian Separatists (e.g., Kashmir, Assam) Using Executions Against Buses	2	0.1%	13	0.2%	3	0.0%	6.5	1.5
Unknown Group or Individuals Using Executions Against Buses	8	0.2%	51	0.7%	4	0.0%	6.4	0.5
Jihadists Using Automatic or Semi Automatic Weapons Against Buses	48	1.4%	301	4.3%	201	1.1%	6.3	4.2
Kurdish Groups Using Explosives Against Bus Stations or Stops	9	0.3%	55	0.8%	292	1.6%	6.1	32.4
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Buses	1	0.0%	6	0.1%	16	0.1%	6.0	16.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Automatic or Semi Automatic Weapons Against Buses	1	0.0%	6	0.1%	10	0.1%	6.0	10.0
Indian Maoist or Communist Groups Using Derailment Against Passenger Trains	34	1.0%	189	2.7%	328	1.8%	5.6	9.6
Nepalese Maoist or Communist Groups Using Explosives Against Buses	14	0.4%	71	1.0%	107	0.6%	5.1	7.6
Jihadists Using Unknown or Miscellaneous Against Operating or Security Personnel and Facilities	1	0.0%	5	0.1%	0	0.0%	5.0	0.0
Unknown Group or Individuals Using Multiple Weapons Against Buses	18	0.5%	89	1.3%	81	0.4%	4.9	4.5
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Buses	7	0.2%	34	0.5%	106	0.6%	4.9	15.1
Miscellaneous Groups Using Multiple Weapons Against Buses	6	0.2%	29	0.4%	23	0.1%	4.8	3.8
Miscellaneous Groups Using Automatic or Semi Automatic Weapons Against Buses	52	1.5%	236	3.3%	307	1.7%	4.5	5.9
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Passenger Trains	9	0.3%	40	0.6%	265	1.4%	4.4	29.4
Left-Wing Groups Using Explosives Against Buses	1	0.0%	4	0.1%	14	0.1%	4.0	14.0
Philippine Communist or Islamic Groups Using Executions Against Buses	1	0.0%	4	0.1%	0	0.0%	4.0	0.0
Unknown Group or Individuals Using Executions Against Operating or Security Personnel and Facilities	1	0.0%	4	0.1%	0	0.0%	4.0	0.0
Unknown Group or Individuals Using Multiple Weapons Against Operating or Security Personnel and Facilities	2	0.1%	8	0.1%	6	0.0%	4.0	3.0
Miscellaneous Groups Using Explosives Against Buses	46	1.4%	176	2.5%	388	2.1%	3.8	8.4
Jihadists Using Unknown or Miscellaneous Against Buses	3	0.1%	11	0.2%	20	0.1%	3.7	6.7
Miscellaneous Groups Using Unknown or Miscellaneous Against Bus Stations or Stops	3	0.1%	11	0.2%	17	0.1%	3.7	5.7
Kurdish Groups Using Explosives Against Buses	14	0.4%	50	0.7%	113	0.6%	3.6	8.1
Miscellaneous Groups Using Stabbings Against Buses	2	0.1%	7	0.1%	0	0.0%	3.5	0.0
Miscellaneous Groups Using Automatic or Semi Automatic Weapons Against Passenger Trains	4	0.1%	14	0.2%	1	0.0%	3.5	0.3
Criminal Using Executions Against Operating or Security Personnel and Facilities	3	0.1%	10	0.1%	0	0.0%	3.3	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	4	0.1%	13	0.2%	9	0.0%	3.3	2.3
Indian Maoist or Communist Groups Using Explosives Against Buses	15	0.4%	46	0.7%	63	0.3%	3.1	4.2
Indian Maoist or Communist Groups Using Explosives Against Operating or Security Personnel and Facilities	1	0.0%	3	0.0%	0	0.0%	3.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Multiple Weapons Against Bus Stations or Stops	1	0.0%	3	0.0%	20	0.1%	3.0	20.0
Jihadists Using Automatic or Semi Automatic Weapons Against Bus Stations or Stops	2	0.1%	6	0.1%	0	0.0%	3.0	0.0
Kurdish Groups Using Explosives Against Passenger Trains	2	0.1%	6	0.1%	8	0.0%	3.0	4.0
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Buses	8	0.2%	24	0.3%	53	0.3%	3.0	6.6
Colombian (FARC or ETA) Groups Using Automatic or Semi Automatic Weapons Against Buses	6	0.2%	16	0.2%	32	0.2%	2.7	5.3
Mentally Disturbed Individual Using Explosives Against Buses	2	0.1%	5	0.1%	41	0.2%	2.5	20.5
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Passenger Train Stations	10	0.3%	25	0.4%	168	0.9%	2.5	16.8
Criminal Using Unarmed/Other Assaults Against Buses	3	0.1%	7	0.1%	5	0.0%	2.3	1.7
Philippine Communist or Islamic Groups Using Automatic or Semi Automatic Weapons Against Buses	5	0.1%	11	0.2%	18	0.1%	2.2	3.6
Totals/Percentages/Averages for All Combinations	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

The length of the list of combinations reveals the diversity of attackers in Group 2 countries. Some of them are participants in conflicts lasting decades, and each group has developed and follows its own *modus operandi*. The analysis clearly shows the jihadist intent to kill in quantity.

SUICIDE ATTACKS

Attacks carried out by suicide attackers receive much attention and cause great public fear and government concern.

Suicide Attacks in Group 1 Countries

As the earlier report indicated, suicide attackers in Group 1 countries (most of whom used explosives) carried out only 3% of the attacks but caused 77.6% of the fatalities (see Table 19). However, the most lethal attack—the 2004 attack in Madrid, in which 191 people died—did not involve suicide bombers. The FPA of suicide attacks (13 confirmed and 3 possible) is 4.9, which is 8.2 times greater than the FPA of non-suicide attacks (0.6).

Table 19. Fatalities and Lethality of Suicide Attacks in Group 1 Countries

Suicide Attacker(s)?	Attacks		Fatalities		Injuries		Lethality	
	# Attacks	% of Attacks	# Fatalities	% of Fatalities	# Injuries	% of Injuries	FPA	IPA
No	460	96.6%	273	77.6%	2379	70.9%	0.6	5.2
Yes (96) Possible (9)	16	3.4%	79	22.4%	975	29.1%	4.9	61.0
TOTAL/PERCENTAGES/AVERAGES	476	100.0%	352	100.0%	3354	100.0%	0.7	7.0

Figure 19 shows trends in suicide attacks in Group 1 countries as a percentage of the total number of attacks, and Figure 20 shows the lethality of those attacks. The peak of suicide attacks occurred in the 2004–2005 period, which includes the July 7, 2005, jihadist attack on the London subway along with a parallel attack on a bus, and a follow-on and failed jihadist suicide attack several weeks later. The surge in 2016–2017 reflects suicide attacks using knives or automatic weapons against bus and train targets, almost all of which had low lethality, but it also includes the March 22, 2016, jihadist attack on a main train station in Brussels, which killed 25 people.

Figure 20 shows the greater lethality of suicide attacks in comparison to non-suicide attacks during both time periods (2004–2005 and 2015–2016) but also shows the downward trend and low lethality of both types of attacks after 2004–2005.

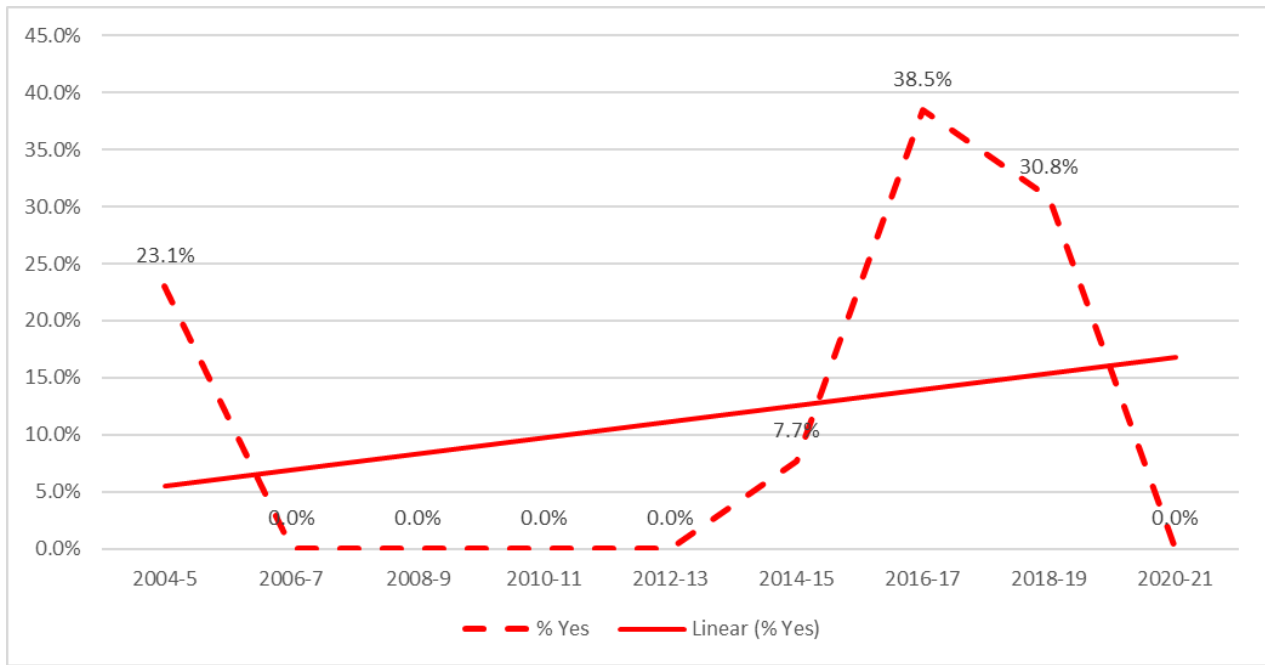


Figure 19. Percentage of Suicide Attacks in Total Attacks in Group 1 Countries

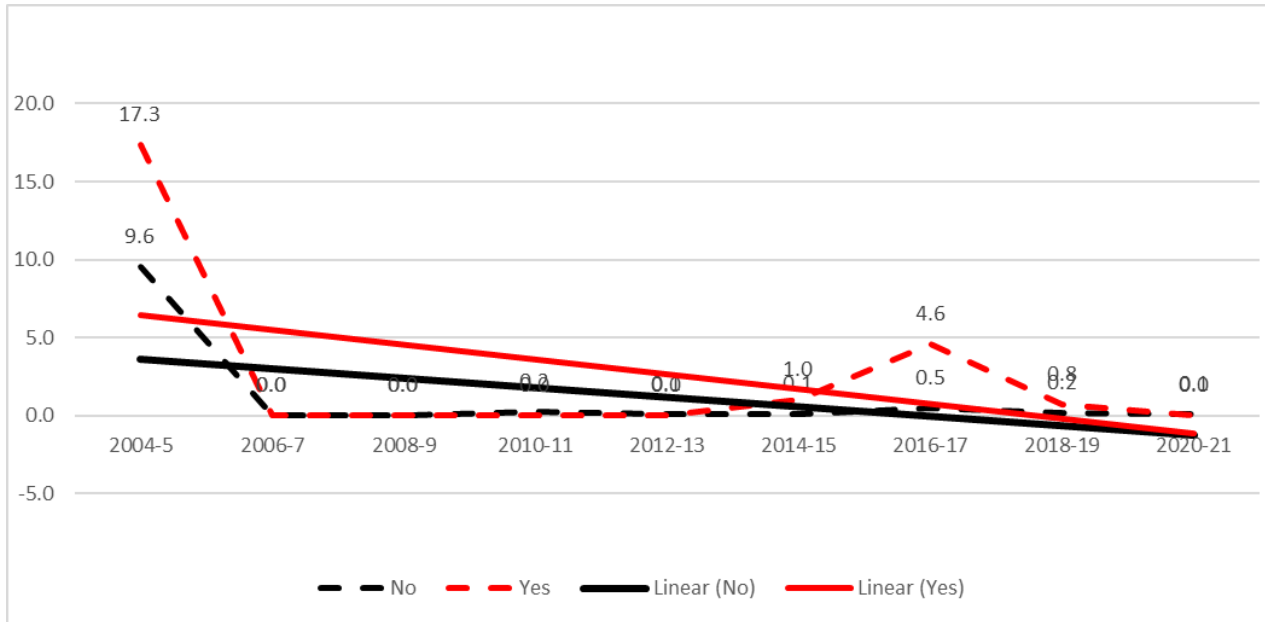


Figure 20. Lethality of Suicide Attacks in Group 1 Countries

Suicide Attacks in Group 2 Countries

Possible or confirmed suicide attacks comprise about 3% of the total attacks in Group 2 countries—the same as is the proportion in Group 1 countries (see Table 20).

The FPA of non-suicide attacks in Group 2 countries was 1.9, which is 3.1 times greater than the 0.6 FPA in Group 1 countries. However, for suicide attacks in Group 2, the *difference is actually less*: The lethality of suicide attacks in Group 2 countries was 9.1, which is only 1.8 times greater than the 4.9 FPA in Group 1. This suggests that suicide attackers are more lethal than non-suicide attackers regardless of the environment in which they operate. However, it may also reflect the fact that non-suicide attacks in Group 1 countries are often designed to achieve economic disruption rather than body counts. In contrast, most of the attacks in Group 2 countries—whether suicide or not—are aimed at producing casualties.

Table 20. Lethality of Suicide Attacks in Group 2 Countries

Suicide Attacker(s)?	Attacks		Fatalities		Injuries		Lethality	
	# Attacks	% of Attacks	# Fatalities	% of Fatalities	# Injuries	% of Injuries	FPA	IPA
No	3255	96.9%	6104	86.5%	16085	86.9%	1.9	4.9
Yes (96) Possible (9)	105	3.1%	956	13.5%	2418	13.1%	9.1	23.0
TOTAL/PERCENTAGES/AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

What happens to these trends over time? In Group 1 countries, the percentage of suicide attacks has declined, while in Group 2 the trend is slightly up, as shown in Figure 21. Also, the percentage of suicide attacks in Group 2 countries has never reached 5.0%—it peaked in 2008–2009 and reached an even higher level in 2014–2017, but then declined. The 2008–2009 peak included three suicide bomb attacks against buses in Pakistan and one attack in Russia carried out by Chechen separatists, killing a total of 121 people. The 2014–2017 peak included three suicide bomb attacks in Nigeria, two in Pakistan, two in Syria (in the midst of a civil war), and one in Turkey against buses, bus convoys, and bus stations, all using explosives and two using VBIEDs. The eight attacks combined killed a total of 329 people, which again emphasizes the fact that the Group 2 countries experience far higher levels of violence.

As Figure 22 shows, the overall lethality of non-suicide attacks is relatively static.

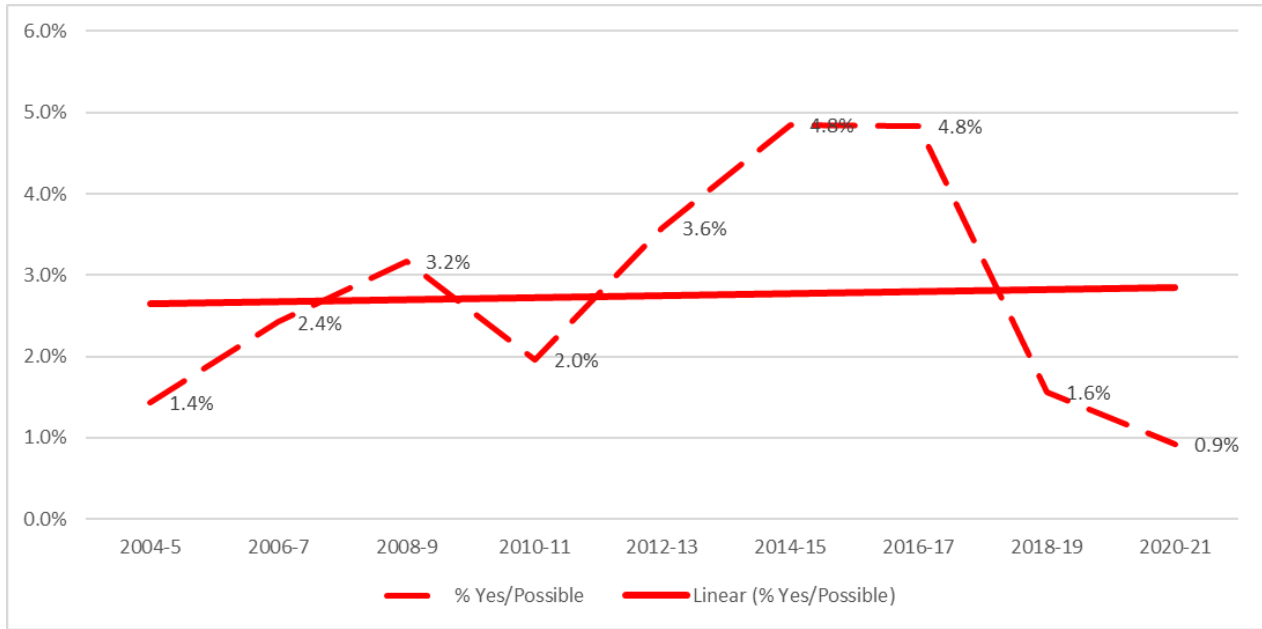


Figure 21. Percentage of Suicide Attacks in Group 2 Countries

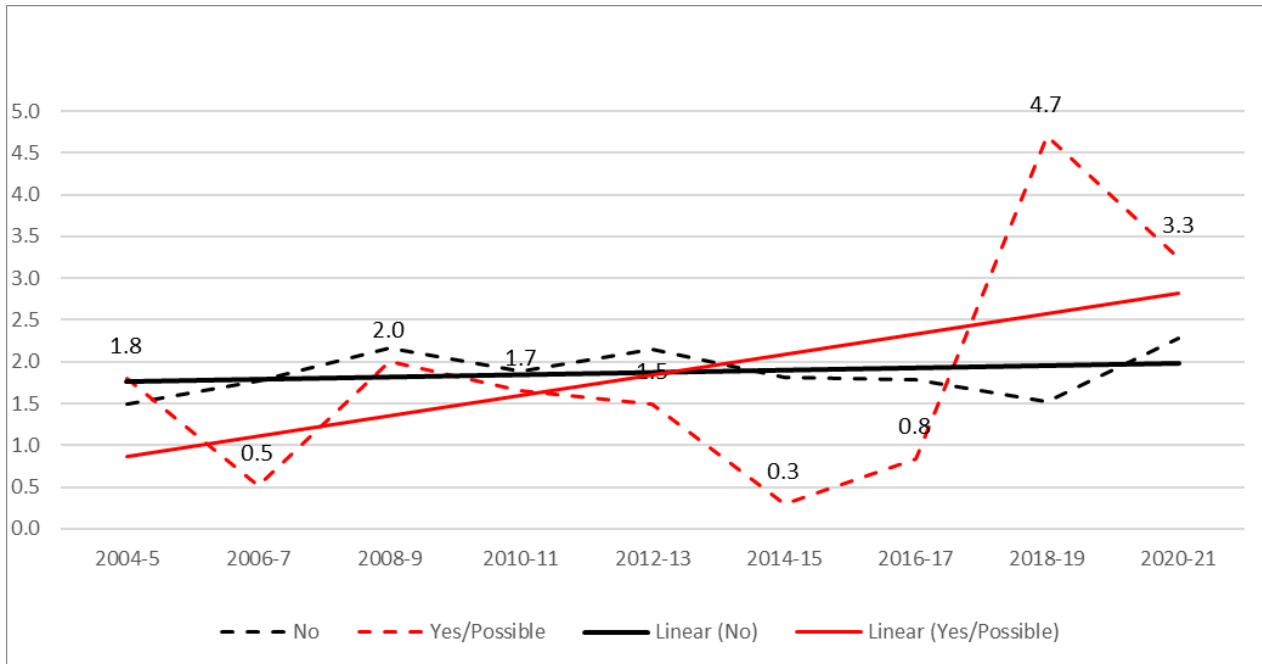


Figure 22. Lethality of Suicide and Non-suicide Attacks in Group 2 Countries

Concluding Remarks

This analysis of attacks on public surface transportation in Group 2 countries indicates overall patterns. However, the statistics are driven by attacks in a fairly small number of countries. Even among the countries experiencing higher levels of violence, it is necessary to examine each situation individually, as the circumstances and patterns of activity vary.

The earlier MTI report on attacks in Group 1 countries, now complemented by this analysis of attacks in Group 2 countries, validates the approach of addressing the two groups separately. While both groups are amalgamations, they differ significantly in many aspects, with the greater volume of attacks and higher level of casualties in Group 2 countries overshadowing the changes in Group 1 countries.

APPENDIX A: ADDITIONAL TABLES

The tables in this appendix are referred to in the text but are not included there because no significant changes in distribution or lethality were apparent.

Table A1. Fatal Attacks in Group 2 Countries

Country	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Iraq	219	19.7%	832	11.8%	1954	13.3%	3.8	8.9
Pakistan	203	18.2%	1478	20.9%	3070	20.9%	7.3	15.1
India	102	9.2%	922	13.1%	2435	16.6%	9.0	23.9
Nigeria	67	6.0%	634	9.0%	783	5.3%	9.5	11.7
Syria	49	4.4%	451	6.4%	627	4.3%	9.2	12.8
Somalia	43	3.9%	244	3.5%	182	1.2%	5.7	4.2
Philippines	36	3.2%	129	1.8%	502	3.4%	3.6	13.9
Kenya	31	2.8%	140	2.0%	541	3.7%	4.5	17.5
Sri Lanka	26	2.3%	361	5.1%	810	5.5%	13.9	31.2
Russian Federation	25	2.2%	232	3.3%	693	4.7%	9.3	27.7
Thailand	25	2.2%	49	0.7%	146	1.0%	2.0	5.8
Bangladesh	24	2.2%	63	0.9%	160	1.1%	2.6	6.7
Turkey	23	2.1%	150	2.1%	516	3.5%	6.5	22.4
Yemen	19	1.7%	107	1.5%	138	0.9%	5.6	7.3
Nepal	18	1.6%	110	1.6%	233	1.6%	6.1	12.9
Mozambique	18	1.6%	44	0.6%	69	0.5%	2.4	3.8
Mali	16	1.4%	134	1.9%	223	1.5%	8.4	13.9
China	15	1.3%	123	1.7%	387	2.6%	8.2	25.8
Colombia	15	1.3%	46	0.7%	88	0.6%	3.1	5.9
Ethiopia	13	1.2%	140	2.0%	83	0.6%	10.8	6.4
Ukraine	13	1.2%	63	0.9%	76	0.5%	4.8	5.8
Egypt	11	1.0%	36	0.5%	98	0.7%	3.3	8.9
Republic of South Sudan	10	0.9%	68	1.0%	87	0.6%	6.8	8.7
Lebanon	7	0.6%	33	0.5%	91	0.6%	4.7	13.0
Myanmar	7	0.6%	33	0.5%	23	0.2%	4.7	3.3
Cameroon	6	0.5%	36	0.5%	9	0.1%	6.0	1.5
Indonesia	5	0.4%	16	0.2%	38	0.3%	3.2	7.6
South Africa	5	0.4%	11	0.2%	42	0.3%	2.2	8.4
Democratic Republic of the Congo	4	0.4%	30	0.4%	3	0.0%	7.5	0.8
El Salvador	4	0.4%	26	0.4%	17	0.1%	6.5	4.3
Burundi	4	0.4%	6	0.1%	20	0.1%	1.5	5.0
Honduras	3	0.3%	39	0.6%	14	0.1%	13.0	4.7
Burkina Faso	3	0.3%	21	0.3%	19	0.1%	7.0	6.3
Iran	3	0.3%	12	0.2%	5	0.0%	4.0	1.7
Guatemala	3	0.3%	11	0.2%	35	0.2%	3.7	11.7
Sudan	3	0.3%	9	0.1%	31	0.2%	3.0	10.3
Algeria	3	0.3%	6	0.1%	27	0.2%	2.0	9.0
Rwanda	3	0.3%	4	0.1%	43	0.3%	1.3	14.3
Central African Republic	2	0.2%	48	0.7%	0	0.0%	24.0	0.0
Niger	2	0.2%	48	0.7%	7	0.0%	24.0	3.5
Uganda	2	0.2%	25	0.4%	13	0.1%	12.5	6.5
Laos	2	0.2%	9	0.1%	27	0.2%	4.5	13.5
Jamaica	2	0.2%	3	0.0%	2	0.0%	1.5	1.0
Belarus	1	0.1%	15	0.2%	200	1.4%	15.0	200.0
Republic of the Congo	1	0.1%	14	0.2%	0	0.0%	14.0	0.0
Guinea-Bissau	1	0.1%	11	0.2%	12	0.1%	11.0	12.0
Haiti	1	0.1%	7	0.1%	8	0.1%	7.0	8.0
Bulgaria	1	0.1%	6	0.1%	32	0.2%	6.0	32.0
Angola	1	0.1%	3	0.0%	8	0.1%	3.0	8.0
Kosovo	1	0.1%	3	0.0%	1	0.0%	3.0	1.0
Papua New Guinea	1	0.1%	3	0.0%	0	0.0%	3.0	0.0
Tanzania	1	0.1%	3	0.0%	6	0.0%	3.0	6.0
Albania	1	0.1%	2	0.0%	5	0.0%	2.0	5.0
Armenia	1	0.1%	2	0.0%	7	0.0%	2.0	7.0
Moldova	1	0.1%	2	0.0%	11	0.1%	2.0	11.0
Benin	1	0.1%	1	0.0%	5	0.0%	1.0	5.0
Ghana	1	0.1%	1	0.0%	3	0.0%	1.0	3.0
Saudi Arabia	1	0.1%	1	0.0%	1	0.0%	1.0	1.0
Senegal	1	0.1%	1	0.0%	20	0.1%	1.0	20.0
Uzbekistan	1	0.1%	1	0.0%	0	0.0%	1.0	0.0
Zambia	1	0.1%	1	0.0%	12	0.1%	1.0	12.0
Zimbabwe	1	0.1%	1	0.0%	3	0.0%	1.0	3.0
TOTAL/PERCENT/AVERAGES	1113	100.0%	7060	100.0%	14700	100.0%	6.3	13.2

Table A2. Fatal Attacks in Group 2 Countries by Attack Method

Attack Method	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Explosives	645	58.0%	4301	60.9%	11461	78.0%	6.7	17.8
Automatic or Semi Automatic Weapons	285	25.6%	1439	20.4%	1374	9.3%	5.0	4.8
Arson & IIDs	36	3.2%	218	3.1%	307	2.1%	6.1	8.5
Multiple Weapons	32	2.9%	211	3.0%	235	1.6%	6.6	7.3
Derailment	30	2.7%	308	4.4%	877	6.0%	10.3	29.2
Executions	29	2.6%	307	4.3%	83	0.6%	10.6	2.9
Kidnapping, Hijacking, Robbery	27	2.4%	86	1.2%	66	0.4%	3.2	2.4
Unknown or Miscellaneous	16	1.4%	102	1.4%	124	0.8%	6.4	7.8
Stabbings	8	0.7%	56	0.8%	168	1.1%	7.0	21.0
Unarmed/Other Assaults	4	0.4%	23	0.3%	4	0.0%	5.8	1.0
Vehicle Ramming	1	0.1%	9	0.1%	2	0.0%	9.0	2.0
Grand Total	1113	100.0%	7060	100.0%	14700	100.0%	6.3	13.2

Table A3. Fatal Attacks in Group 2 Countries by Attacker Group

Attacker Group	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Unknown Group or Individuals	520	46.7%	2326	32.9%	5048	34.3%	4.5	9.7
Jihadist	230	20.7%	2466	34.9%	4747	32.3%	10.7	20.6
Miscellaneous Groups	116	10.4%	805	11.4%	1633	11.1%	6.9	14.1
Indian Separatists (e.g., Kashmir, Assam)	62	5.6%	437	6.2%	1196	8.1%	7.0	19.3
Criminal	45	4.0%	138	2.0%	110	0.7%	3.1	2.4
Pakistani Separatists (e.g., Baluchistan, Sindhustan)	28	2.5%	172	2.4%	611	4.2%	6.1	21.8
Indian Maoist or Communist Groups	27	2.4%	273	3.9%	379	2.6%	10.1	14.0
Kurdish Groups	20	1.8%	121	1.7%	392	2.7%	6.1	19.6
Thai Islamic Groups	16	1.4%	30	0.4%	99	0.7%	1.9	6.2
Mentally Disturbed Individual	12	1.1%	90	1.3%	160	1.1%	7.5	13.3
Philippine Communist or Islamic Groups	12	1.1%	45	0.6%	85	0.6%	3.8	7.1
Nepalese Maoist or Communist Groups	11	1.0%	94	1.3%	125	0.9%	8.5	11.4
Colombian (FARC or ETA) Groups	11	1.0%	33	0.5%	61	0.4%	3.0	5.5
Non-Jihadists Islamic Groups	2	0.2%	26	0.4%	40	0.3%	13.0	20.0
Left-Wing Groups	1	0.1%	4	0.1%	14	0.1%	4.0	14.0
Grand Total	1113	100.0%	7060	100.0%	14700	100.0%	6.3	13.2

Table A4. Lethality of Combinations of Attack Method and Target Group in Attacks in Group 1 Countries

Most Lethal Combinationa - Attack Method & Target Group	# Attacks	% Attacks	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Sabotage Used Against All Rail Infrastructure	75	15.8%	0	0.0%	0	0.0%	0.0	0.0
Arson & IIDs Used Against Buses	52	10.9%	26	7.4%	4	0.1%	0.5	0.1
Arson & IIDs Used Against All Rail Infrastructure	40	8.4%	0	0.0%	0	0.0%	0.0	0.0
Explosives Used Against Passenger Train Stations	27	5.7%	213	60.5%	2022	60.3%	7.9	74.9
Unarmed/Other Assaults Used Against Operating or Security Personnel and Facilities	25	5.3%	1	0.3%	37	1.1%	0.0	1.5
Stabbings Used Against Passenger Train Stations	23	4.8%	6	1.7%	57	1.7%	0.3	2.5
Kidnapping, Hijacking, Robbery Used Against Buses	21	4.4%	1	0.3%	8	0.2%	0.0	0.4
Explosives Used Against All Rail Infrastructure	20	4.2%	0	0.0%	0	0.0%	0.0	0.0
Explosives Used Against Passenger Trains	18	3.8%	52	14.8%	753	22.5%	2.9	41.8
Arson & IIDs Used Against Passenger Train Stations	18	3.8%	0	0.0%	0	0.0%	0.0	0.0
Stabbings Used Against Operating or Security Personnel and Facilities	17	3.6%	4	1.1%	9	0.3%	0.2	0.5
Arson & IIDs Used Against Passenger Trains	13	2.7%	2	0.6%	60	1.8%	0.2	4.6
Derailment Used Against Passenger Trains	13	2.7%	0	0.0%	16	0.5%	0.0	1.2
Automatic or Semi Automatic Weapons Used Against Operating or Security Personnel and Facilities	12	2.5%	6	1.7%	9	0.3%	0.5	0.8
Automatic or Semi Automatic Weapons Used Against Buses	12	2.5%	4	1.1%	31	0.9%	0.3	2.6
Stabbings Used Against Passenger Trains	11	2.3%	7	2.0%	55	1.6%	0.6	5.0
Stabbings Used Against Buses	10	2.1%	4	1.1%	27	0.8%	0.4	2.7
Explosives Used Against Buses	7	1.5%	0	0.0%	3	0.1%	0.0	0.4
Automatic or Semi Automatic Weapons Used Against Passenger Train Stations	6	1.3%	4	1.1%	14	0.4%	0.7	2.3
Unarmed/Other Assaults Used Against Buses	5	1.1%	0	0.0%	24	0.7%	0.0	4.8
Automatic or Semi Automatic Weapons Used Against Passenger Trains	4	0.8%	4	1.1%	5	0.1%	1.0	1.3
Stabbings Used Against Bus Stations or Stops	3	0.6%	4	1.1%	17	0.5%	1.3	5.7
Vehicle Ramming Used Against Bus Stations or Stops	3	0.6%	2	0.6%	15	0.4%	0.7	5.0
Arson & IIDs Used Against Bus Stations or Stops	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Explosives Used Against Bus Stations or Stops	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Kidnapping, Hijacking, Robbery Used Against Passenger Trains	3	0.6%	0	0.0%	3	0.1%	0.0	1.0
Multiple Weapons Used Against Buses	3	0.6%	0	0.0%	2	0.1%	0.0	0.7
Sabotage Used Against Passenger Trains	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Unarmed/Other Assaults Used Against Passenger Trains	3	0.6%	0	0.0%	1	0.0%	0.0	0.3
Multiple Weapons Used Against Passenger Trains	2	0.4%	2	0.6%	21	0.6%	1.0	10.5
Arson & IIDs Used Against Operating or Security Personnel and Facilities	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Kidnapping, Hijacking, Robbery Used Against Operating or Security Personnel and Facilities	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Sabotage Used Against Operating or Security Personnel and Facilities	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Unknown or Miscellaneous Used Against Operating or Security Personnel and Facilities	2	0.4%	0	0.0%	2	0.1%	0.0	1.0
Unknown or Miscellaneous Used Against Passenger Train Stations	2	0.4%	0	0.0%	2	0.1%	0.0	1.0
Executions Used Against Bus Stations or Stops	1	0.2%	5	1.4%	1	0.0%	5.0	1.0
Multiple Weapons Used Against Bus Stations or Stops	1	0.2%	4	1.1%	125	3.7%	4.0	125.0
Unarmed/Other Assaults Used Against Passenger Train Stations	1	0.2%	1	0.3%	1	0.0%	1.0	1.0
Automatic or Semi Automatic Weapons Used Against Bus Stations or Stops	1	0.2%	0	0.0%	4	0.1%	0.0	4.0
Kidnapping, Hijacking, Robbery Used Against Passenger Train Stations	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Sabotage Used Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unarmed/Other Assaults Used Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown or Miscellaneous Used Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Vehicle Ramming Used Against Buses	1	0.2%	0	0.0%	4	0.1%	0.0	4.0
Vehicle Ramming Used Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Vehicle Ramming Used Against Passenger Train Stations	1	0.2%	0	0.0%	19	0.6%	0.0	19.0
TOTAL/PERCENTAGES/AVERAGES	476	100.0%	352	100.0%	3354	100.0%	0.7	7.0

Table A5. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 1 Countries

Most Lethal Combinations: Attacker Group - Attack Method- Target Group	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Unknown Group or Individuals Using Sabotage Against All Rail Infrastructure	32	6.7%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Arson & IIDs Against All Rail Infrastructure	29	6.1%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Sabotage Against All Rail Infrastructure	28	5.9%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Buses	19	4.0%	0	0.0%	3	0.1%	0.0	0.2
Criminal Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	17	3.6%	1	0.3%	15	0.4%	0.1	0.9
Mentally Disturbed Individual Using Stabbings Against Passenger Train Stations	15	3.2%	3	0.9%	46	1.4%	0.2	3.1
Unknown Group or Individuals Using Explosives Against All Rail Infrastructure	14	2.9%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Kidnapping, Hijacking, Robbery Against Buses	11	2.3%	0	0.0%	4	0.1%	0.0	0.4
Criminal Using Arson & IIDs Against Buses	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Passenger Train Stations	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Explosives Against Passenger Train Stations	10	2.1%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	9	1.9%	5	1.4%	4	0.1%	0.6	0.4
Criminal Using Sabotage Against All Rail Infrastructure	9	1.9%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Stabbings Against Passenger Trains	8	1.7%	7	2.0%	43	1.3%	0.9	5.4
Mentally Disturbed Individual Using Stabbings Against Buses	8	1.7%	4	1.1%	25	0.7%	0.5	3.1
Mentally Disturbed Individual Using Stabbings Against Operating or Security Personnel and Facilities	8	1.7%	2	0.6%	4	0.1%	0.3	0.5
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Buses	7	1.5%	1	0.3%	4	0.1%	0.1	0.6
Criminal Using Automatic or Semi Automatic Weapons Against Buses	6	1.3%	2	0.6%	16	0.5%	0.3	2.7
Miscellaneous Groups Using Arson & IIDs Against Buses	6	1.3%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Derailment Against Passenger Trains	6	1.3%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Explosives Against Passenger Trains	6	1.3%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Explosives Against Passenger Trains	5	1.1%	52	14.8%	729	21.7%	10.4	145.8
Anarchist or Environmental Groups Using Arson & IIDs Against Buses	5	1.1%	0	0.0%	1	0.0%	0.0	0.2
Criminal Using Stabbings Against Operating or Security Personnel and Facilities	5	1.1%	0	0.0%	4	0.1%	0.0	0.8
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	5	1.1%	0	0.0%	20	0.6%	0.0	4.0
Jihadists Using Explosives Against Passenger Train Stations	4	0.8%	211	59.9%	1974	58.9%	52.8	493.5
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Buses	4	0.8%	2	0.6%	9	0.3%	0.5	2.3
Mentally Disturbed Individual Using Arson & IIDs Against Passenger Trains	4	0.8%	1	0.3%	44	1.3%	0.3	11.0
Anarchist or Environmental Groups Using Arson & IIDs Against Passenger Train Stations	4	0.8%	0	0.0%	0	0.0%	0.0	0.0

Most Lethal Combinations: Attack Group - Attack Method- Target Group	Attacks	% Attacks	Fatalities	% Fatalities	Injuries	% Injuries	FPA	IPA
Basque Groups Using Arson & IIDs Against Buses	4	0.8%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Derailment Against Passenger Trains	4	0.8%	0	0.0%	1	0.0%	0.0	0.3
Irish Republican or Protestant Groups Using Arson & IIDs Against Buses	4	0.8%	0	0.0%	0	0.0%	0.0	0.0
Irish Republican or Protestant Groups Using Explosives Against All Rail Infrastructure	4	0.8%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Explosives Against Passenger Trains	4	0.8%	0	0.0%	24	0.7%	0.0	6.0
Unknown Group or Individuals Using Stabbings Against Passenger Train Stations	4	0.8%	0	0.0%	9	0.3%	0.0	2.3
Criminal Using Explosives Against Passenger Train Stations	3	0.6%	2	0.6%	0	0.0%	0.7	0.0
Jihadists Using Stabbings Against Passenger Train Stations	3	0.6%	2	0.6%	2	0.1%	0.7	0.7
Mentally Disturbed Individual Using Vehicle Ramming Against Bus Stations or Stops	3	0.6%	2	0.6%	15	0.4%	0.7	5.0
Unknown Group or Individuals Using Stabbings Against Operating or Security Personnel and Facilities	3	0.6%	2	0.6%	0	0.0%	0.7	0.0
Basque Groups Using Arson & IIDs Against All Rail Infrastructure	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Basque Groups Using Explosives Against Passenger Train Stations	3	0.6%	0	0.0%	34	1.0%	0.0	11.3
Left-Wing Groups Using Arson & IIDs Against Passenger Trains	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Explosives Against Passenger Train Stations	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Buses	3	0.6%	0	0.0%	24	0.7%	0.0	8.0
Unknown Group or Individuals Using Arson & IIDs Against All Rail Infrastructure	3	0.6%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	3	0.6%	0	0.0%	2	0.1%	0.0	0.7
Mentally Disturbed Individual Using Arson & IIDs Against Buses	2	0.4%	26	7.4%	0	0.0%	13.0	0.0
Mentally Disturbed Individual Using Stabbings Against Bus Stations or Stops	2	0.4%	3	0.9%	17	0.5%	1.5	8.5
Criminal Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.4%	2	0.6%	3	0.1%	1.0	1.5
Mentally Disturbed Individual Using Multiple Weapons Against Passenger Trains	2	0.4%	2	0.6%	21	0.6%	1.0	10.5
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	2	0.4%	1	0.3%	5	0.1%	0.5	2.5
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.4%	1	0.3%	10	0.3%	0.5	5.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.4%	1	0.3%	1	0.0%	0.5	0.5
Basque Groups Using Sabotage Against All Rail Infrastructure	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Arson & IIDs Against All Rail Infrastructure	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Arson & IIDs Against Bus Stations or Stops	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Kidnapping, Hijacking, Robbery Against Passenger Trains	2	0.4%	0	0.0%	3	0.1%	0.0	1.5
Criminal Using Unknown or Miscellaneous Against Operating or Security Personnel and Facilities	2	0.4%	0	0.0%	2	0.1%	0.0	1.0
Jihadists Using Stabbings Against Passenger Trains	2	0.4%	0	0.0%	10	0.3%	0.0	5.0
Left-Wing Groups Using Arson & IIDs Against All Rail Infrastructure	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Arson & IIDs Against Buses	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Sabotage Against All Rail Infrastructure	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Derailment Against Passenger Trains	2	0.4%	0	0.0%	15	0.4%	0.0	7.5
Mentally Disturbed Individual Using Unknown or Miscellaneous Against Passenger Train Stations	2	0.4%	0	0.0%	2	0.1%	0.0	1.0
Miscellaneous Groups Using Explosives Against Passenger Train Stations	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Multiple Weapons Against Buses	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Sabotage Against All Rail Infrastructure	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Buses	2	0.4%	0	0.0%	6	0.2%	0.0	3.0
Unknown Group or Individuals Using Explosives Against Buses	2	0.4%	0	0.0%	1	0.0%	0.0	0.5
Unknown Group or Individuals Using Kidnapping, Hijacking, Robbery Against Buses	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Sabotage Against Passenger Trains	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unarmed/Other Assaults Against Buses	2	0.4%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Executions Against Bus Stations or Stops	1	0.2%	5	1.4%	1	0.0%	5.0	1.0
Mentally Disturbed Individual Using Multiple Weapons Against Bus Stations or Stops	1	0.2%	4	1.1%	125	3.7%	4.0	125.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Passenger Trains	1	0.2%	4	1.1%	1	0.0%	4.0	1.0
Criminal Using Arson & IIDs Against Passenger Trains	1	0.2%	1	0.3%	16	0.5%	1.0	16.0
Criminal Using Stabbings Against Passenger Train Stations	1	0.2%	1	0.3%	0	0.0%	1.0	0.0
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Passenger Train Stations	1	0.2%	1	0.3%	1	0.0%	1.0	1.0
Right Wing Groups Using Stabbings Against Bus Stations or Stops	1	0.2%	1	0.3%	0	0.0%	1.0	0.0
Anarchist or Environmental Groups Using Arson & IIDs Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Explosives Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Explosives Against Buses	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Explosives Against Passenger Train Stations	1	0.2%	0	0.0%	14	0.4%	0.0	14.0
Anarchist or Environmental Groups Using Sabotage Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Anarchist or Environmental Groups Using Sabotage Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Basque Groups Using Arson & IIDs Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Basque Groups Using Arson & IIDs Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Basque Groups Using Explosives Against All Rail Infrastructure	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Basque Groups Using Explosives Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Automatic or Semi Automatic Weapons Against Bus Stations or Stops	1	0.2%	0	0.0%	4	0.1%	0.0	4.0
Criminal Using Automatic or Semi Automatic Weapons Against Passenger Trains	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Criminal Using Explosives Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Explosives Against Buses	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Criminal Using Explosives Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Kidnapping, Hijacking, Robbery Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Multiple Weapons Against Buses	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Criminal Using Sabotage Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Sabotage Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Stabbings Against Buses	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Criminal Using Unarmed/Other Assaults Against Passenger Trains	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Criminal Using Unknown or Miscellaneous Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Vehicle Ramming Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Irish Republican or Protestant Groups Using Arson & IIDs Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Irish Republican or Protestant Groups Using Arson & IIDs Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Irish Republican or Protestant Groups Using Explosives Against Buses	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Irish Republican or Protestant Groups Using Kidnapping, Hijacking, Robbery Against Buses	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Automatic or Semi Automatic Weapons Against Passenger Trains	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Jihadists Using Explosives Against Buses	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Stabbings Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Jihadists Using Vehicle Ramming Against Buses	1	0.2%	0	0.0%	4	0.1%	0.0	4.0
Left-Wing Groups Using Arson & IIDs Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Arson & IIDs Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Explosives Against All Rail Infrastructure	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Explosives Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Left-Wing Groups Using Explosives Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Arson & IIDs Against Passenger Train Stations	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Passenger Trains	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Mentally Disturbed Individual Using Explosives Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Explosives Against Buses	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Passenger Train Stations	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Mentally Disturbed Individual Using Vehicle Ramming Against Passenger Train Stations	1	0.2%	0	0.0%	19	0.6%	0.0	19.0
Miscellaneous Groups Using Arson & IIDs Against All Rail Infrastructure	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Arson & IIDs Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Right Wing Groups Using Arson & IIDs Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Right Wing Groups Using Derailment Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Right Wing Groups Using Unarmed/Other Assaults Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Stabbings Against Buses	1	0.2%	0	0.0%	1	0.0%	0.0	1.0
Unknown Group or Individuals Using Stabbings Against Passenger Trains	1	0.2%	0	0.0%	2	0.1%	0.0	2.0
Unknown Group or Individuals Using Unarmed/Other Assaults Against Bus Stations or Stops	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unarmed/Other Assaults Against Passenger Trains	1	0.2%	0	0.0%	0	0.0%	0.0	0.0
TOTAL/PERCENTAGES/AVERAGES	476	100.0%	352	100.0%	3354	100.0%	0.7	7.0

Table A6. Lethality of Combinations of Attack Method and Target Group in Attacks in Group 2 Countries

Group 2: Most Lethal Combinations - Attack Method & Target Group	# Attacks	% Fatalities	# Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Explosives Used Against Buses	679	20.2%	2383	33.8%	6256	33.8%	3.5	9.2
Explosives Used Against All Rail Infrastructure	577	17.2%	22	0.3%	191	1.0%	0.0	0.3
Arson & IIDs Used Against Buses	350	10.4%	150	2.1%	635	3.4%	0.4	1.8
Explosives Used Against Bus Stations or Stops	337	10.0%	1358	19.2%	4255	23.0%	4.0	12.6
Automatic or Semi Automatic Weapons Used Against Buses	335	10.0%	1256	17.8%	1404	7.6%	3.7	4.2
Derailment Used Against Passenger Trains	204	6.1%	307	4.3%	1499	8.1%	1.5	7.3
Explosives Used Against Passenger Train Stations	159	4.7%	161	2.3%	1042	5.6%	1.0	6.6
Kidnapping, Hijacking, Robbery Used Against Buses	141	4.2%	84	1.2%	120	0.6%	0.6	0.9
Explosives Used Against Passenger Trains	103	3.1%	176	2.5%	933	5.0%	1.7	9.1
Automatic or Semi Automatic Weapons Used Against Passenger Trains	45	1.3%	54	0.8%	123	0.7%	1.2	2.7
Multiple Weapons Used Against Buses	44	1.3%	187	2.6%	204	1.1%	4.3	4.6
Arson & IIDs Used Against Passenger Trains	33	1.0%	67	0.9%	83	0.4%	2.0	2.5
Automatic or Semi Automatic Weapons Used Against Operating or Security Personnel and Facilities	29	0.9%	33	0.5%	67	0.4%	1.1	2.3
Executions Used Against Buses	26	0.8%	292	4.1%	85	0.5%	11.2	3.3
Unknown or Miscellaneous Used Against Buses	24	0.7%	86	1.2%	145	0.8%	3.6	6.0
Unarmed/Other Assaults Used Against Buses	23	0.7%	22	0.3%	44	0.2%	1.0	1.9
Kidnapping, Hijacking, Robbery Used Against Passenger Trains	20	0.6%	2	0.0%	24	0.1%	0.1	1.2
Sabotage Used Against All Rail Infrastructure	19	0.6%	0	0.0%	0	0.0%	0.0	0.0
Arson & IIDs Used Against Passenger Train Stations	17	0.5%	0	0.0%	2	0.0%	0.0	0.1
Explosives Used Against Operating or Security Personnel and Facilities	16	0.5%	12	0.2%	65	0.4%	0.8	4.1
Multiple Weapons Used Against Passenger Train Stations	15	0.4%	6	0.1%	9	0.0%	0.4	0.6
Unarmed/Other Assaults Used Against Operating or Security Personnel and Facilities	13	0.4%	1	0.0%	8	0.0%	0.1	0.6
Automatic or Semi Automatic Weapons Used Against Bus Stations or Stops	12	0.4%	20	0.3%	17	0.1%	1.7	1.4
Multiple Weapons Used Against Passenger Trains	11	0.3%	7	0.1%	51	0.3%	0.6	4.6
Automatic or Semi Automatic Weapons Used Against Passenger Train Stations	10	0.3%	76	1.1%	115	0.6%	7.6	11.5
Arson & IIDs Used Against Bus Stations or Stops	10	0.3%	1	0.0%	0	0.0%	0.1	0.0
Stabbings Used Against Buses	8	0.2%	23	0.3%	20	0.1%	2.9	2.5
Multiple Weapons Used Against Operating or Security Personnel and Facilities	8	0.2%	8	0.1%	10	0.1%	1.0	1.3
Arson & IIDs Used Against All Rail Infrastructure	7	0.2%	0	0.0%	0	0.0%	0.0	0.0
Stabbings Used Against Operating or Security Personnel and Facilities	6	0.2%	1	0.0%	21	0.1%	0.2	3.5
Arson & IIDs Used Against Operating or Security Personnel and Facilities	6	0.2%	0	0.0%	1	0.0%	0.0	0.2
Kidnapping, Hijacking, Robbery Used Against Passenger Train Stations	6	0.2%	0	0.0%	0	0.0%	0.0	0.0
Multiple Weapons Used Against All Rail Infrastructure	6	0.2%	0	0.0%	0	0.0%	0.0	0.0
Stabbings Used Against Passenger Train Stations	5	0.1%	32	0.5%	173	0.9%	6.4	34.6
Unknown or Miscellaneous Used Against Bus Stations or Stops	5	0.1%	11	0.2%	17	0.1%	2.2	3.4
Multiple Weapons Used Against Bus Stations or Stops	5	0.1%	3	0.0%	21	0.1%	0.6	4.2
Kidnapping, Hijacking, Robbery Used Against Operating or Security Personnel and Facilities	5	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown or Miscellaneous Used Against Passenger Train Stations	5	0.1%	0	0.0%	3	0.0%	0.0	0.6
Executions Used Against Operating or Security Personnel and Facilities	4	0.1%	14	0.2%	0	0.0%	3.5	0.0
Unknown or Miscellaneous Used Against Passenger Trains	4	0.1%	0	0.0%	20	0.1%	0.0	5.0
Unarmed/Other Assaults Used Against Passenger Train Stations	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown or Miscellaneous Used Against All Rail Infrastructure	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown or Miscellaneous Used Against Operating or Security Personnel and Facilities	2	0.1%	5	0.1%	2	0.0%	2.5	1.0
Derailment Used Against All Rail Infrastructure	2	0.1%	1	0.0%	1	0.0%	0.5	0.5
Sabotage Used Against Passenger Train Stations	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Sabotage Used Against Passenger Trains	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unarmed/Other Assaults Used Against All Rail Infrastructure	2	0.1%	0	0.0%	5	0.0%	0.0	2.5
Unarmed/Other Assaults Used Against Bus Stations or Stops	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unarmed/Other Assaults Used Against Passenger Trains	2	0.1%	0	0.0%	10	0.1%	0.0	5.0
Explosives Used Against Passenger Trains	1	0.0%	189	2.7%	800	4.3%	189.0	800.0
Vehicle Ramming Used Against Bus Stations or Stops	1	0.0%	9	0.1%	2	0.0%	9.0	2.0
Executions Used Against Passenger Train Stations	1	0.0%	1	0.0%	0	0.0%	1.0	0.0
Automatic or Semi Automatic Weapons Used Against All Rail Infrastructure	1	0.0%	0	0.0%	9	0.0%	0.0	9.0
Kidnapping, Hijacking, Robbery Used Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Sabotage Used Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Stabbings Used Against Bus Stations or Stops	1	0.0%	0	0.0%	3	0.0%	0.0	3.0
Stabbings Used Against Passenger Trains	1	0.0%	0	0.0%	9	0.0%	0.0	9.0
TOTAL/PERCENTAGES/AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

Table A6 (cont.)

Group 2 - Attacker Group, Attack Methods and Target Group Combinations	Attacks	% Attacks	Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Unknown Group or Individuals Using Explosives Against Buses	393	11.7%	971	13.8%	3136	16.9%	2.5	8.0
Unknown Group or Individuals Using Explosives Against All Rail Infrastructure	332	9.9%	6	0.1%	65	0.4%	0.0	0.2
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Buses	178	5.3%	583	8.3%	655	3.5%	3.3	3.7
Unknown Group or Individuals Using Explosives Against Bus Stations or Stops	161	4.8%	360	5.1%	1396	7.5%	2.2	8.7
Jihadists Using Explosives Against Buses	106	3.2%	690	9.8%	1425	7.7%	6.5	13.4
Indian Maoist or Communist Groups Using Explosives Against All Rail Infrastructure	106	3.2%	0	0.0%	2	0.0%	0.0	0.0
Unknown Group or Individuals Using Derailment Against Passenger Trains	103	3.1%	57	0.8%	507	2.7%	0.6	4.9
Jihadists Using Explosives Against Bus Stations or Stops	83	2.5%	868	12.3%	2009	10.9%	10.5	24.2
Unknown Group or Individuals Using Explosives Against Passenger Train Stations	82	2.4%	45	0.6%	413	2.2%	0.5	5.0
Miscellaneous Groups Using Arson & IIDs Against Buses	78	2.3%	32	0.5%	245	1.3%	0.4	3.1
Unknown Group or Individuals Using Arson & IIDs Against Buses	74	2.2%	58	0.8%	215	1.2%	0.8	2.9
Colombian (FARC or ETA) Groups Using Arson & IIDs Against Buses	63	1.9%	2	0.0%	0	0.0%	0.0	0.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against All Rail Infrastructure	58	1.7%	0	0.0%	7	0.0%	0.0	0.1
Unknown Group or Individuals Using Explosives Against Passenger Trains	54	1.6%	29	0.4%	128	0.7%	0.5	2.4
Miscellaneous Groups Using Automatic or Semi Automatic Weapons Against Buses	52	1.5%	236	3.3%	307	1.7%	4.5	5.9
Indian Maoist or Communist Groups Using Arson & IIDs Against Buses	52	1.5%	1	0.0%	0	0.0%	0.0	0.0
Jihadists Using Automatic or Semi Automatic Weapons Against Buses	48	1.4%	301	4.3%	201	1.1%	6.3	4.2
Miscellaneous Groups Using Explosives Against Buses	46	1.4%	176	2.5%	388	2.1%	3.8	8.4
Criminal Using Kidnapping, Hijacking, Robbery Against Buses	45	1.3%	22	0.3%	49	0.3%	0.5	1.1
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Buses	35	1.0%	280	4.0%	620	3.4%	8.0	17.7
Indian Maoist or Communist Groups Using Derailment Against Passenger Trains	34	1.0%	189	2.7%	328	1.8%	5.6	9.6
Unknown Group or Individuals Using Kidnapping, Hijacking, Robbery Against Buses	32	1.0%	10	0.1%	9	0.0%	0.3	0.3
Nepalese Maoist or Communist Groups Using Arson & IIDs Against Buses	30	0.9%	6	0.1%	29	0.2%	0.2	1.0
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against All Rail Infrastructure	30	0.9%	2	0.0%	17	0.1%	0.1	0.6
Miscellaneous Groups Using Explosives Against Bus Stations or Stops	28	0.8%	50	0.7%	212	1.1%	1.8	7.6
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Bus Stations or Stops	26	0.8%	16	0.2%	241	1.3%	0.6	9.3
Indian Maoist or Communist Groups Using Explosives Against Passenger Train Stations	24	0.7%	0	0.0%	6	0.0%	0.0	0.3
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Derailment Against Passenger Trains	22	0.7%	28	0.4%	178	1.0%	1.3	8.1
Philippine Communist or Islamic Groups Using Arson & IIDs Against Buses	22	0.7%	3	0.0%	6	0.0%	0.1	0.3
Criminal Using Automatic or Semi Automatic Weapons Against Buses	21	0.6%	38	0.5%	48	0.3%	1.8	2.3
Miscellaneous Groups Using Kidnapping, Hijacking, Robbery Against Buses	20	0.6%	1	0.0%	0	0.0%	0.1	0.0
Jihadists Using Kidnapping, Hijacking, Robbery Against Buses	19	0.6%	23	0.3%	3	0.0%	1.2	0.2
Thai Islamic Groups Using Explosives Against Passenger Train Stations	19	0.6%	4	0.1%	88	0.5%	0.2	4.6
Unknown Group or Individuals Using Multiple Weapons Against Buses	18	0.5%	89	1.3%	81	0.4%	4.9	4.5
Miscellaneous Groups Using Explosives Against All Rail Infrastructure	18	0.5%	11	0.2%	73	0.4%	0.6	4.1
Thai Islamic Groups Using Explosives Against All Rail Infrastructure	18	0.5%	2	0.0%	7	0.0%	0.1	0.4
Indian Maoist or Communist Groups Using Explosives Against Buses	15	0.4%	46	0.7%	63	0.3%	3.1	4.2
Miscellaneous Groups Using Derailment Against Passenger Trains	15	0.4%	27	0.4%	286	1.5%	1.8	19.1
Criminal Using Explosives Against Buses	15	0.4%	16	0.2%	69	0.4%	1.1	4.6
Colombian (FARC or ETA) Groups Using Explosives Against Buses	15	0.4%	11	0.2%	58	0.3%	0.7	3.9
Nepalese Maoist or Communist Groups Using Explosives Against Buses	14	0.4%	71	1.0%	107	0.6%	5.1	7.6
Kurdish Groups Using Explosives Against Buses	14	0.4%	50	0.7%	113	0.6%	3.6	8.1
Jihadists Using Explosives Against Passenger Train Stations	14	0.4%	27	0.4%	169	0.9%	1.9	12.1
Indian Separatists (e.g., Kashmir, Assam) Using Derailment Against Passenger Trains	14	0.4%	2	0.0%	158	0.9%	0.1	11.3
Thai Islamic Groups Using Automatic or Semi Automatic Weapons Against Passenger Trains	13	0.4%	6	0.1%	10	0.1%	0.5	0.8
Indian Maoist or Communist Groups Using Multiple Weapons Against Passenger Train Stations	12	0.4%	6	0.1%	2	0.0%	0.5	0.2
Unknown Group or Individuals Using Unarmed/Other Assaults Against Buses	12	0.4%	0	0.0%	35	0.2%	0.0	2.9
Philippine Communist or Islamic Groups Using Explosives Against Buses	11	0.3%	21	0.3%	88	0.5%	1.9	8.0
Jihadists Using Executions Against Buses	10	0.3%	166	2.4%	48	0.3%	16.6	4.8
Jihadists Using Explosives Against Passenger Trains	10	0.3%	31	0.4%	146	0.8%	3.1	14.6
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Passenger Train Stations	10	0.3%	25	0.4%	168	0.9%	2.5	16.8
Unknown Group or Individuals Using Unknown or Miscellaneous Against Buses	10	0.3%	21	0.3%	42	0.2%	2.1	4.2
Criminal Using Arson & IIDs Against Buses	10	0.3%	6	0.1%	15	0.1%	0.6	1.5
Kurdish Groups Using Explosives Against Bus Stations or Stops	9	0.3%	55	0.8%	292	1.6%	6.1	32.4
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Passenger Trains	9	0.3%	40	0.6%	265	1.4%	4.4	29.4
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Passenger Trains	9	0.3%	17	0.2%	148	0.8%	1.9	16.4
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	9	0.3%	8	0.1%	33	0.2%	0.9	3.7
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Passenger Trains	9	0.3%	7	0.1%	27	0.1%	0.8	3.0
Criminal Using Kidnapping, Hijacking, Robbery Against Passenger Trains	9	0.3%	2	0.0%	18	0.1%	0.2	2.0
Indian Maoist or Communist Groups Using Sabotage Against All Rail Infrastructure	9	0.3%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Passenger Trains	9	0.3%	0	0.0%	39	0.2%	0.0	4.3
Miscellaneous Groups Using Unknown or Miscellaneous Against Buses	8	0.2%	54	0.8%	81	0.4%	6.8	10.1
Unknown Group or Individuals Using Executions Against Buses	8	0.2%	51	0.7%	4	0.0%	6.4	0.5
Mentally Disturbed Individual Using Kidnapping, Hijacking, Robbery Against Buses	8	0.2%	24	0.3%	53	0.3%	3.0	6.6
Indian Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Passenger Trains	8	0.2%	16	0.2%	24	0.1%	2.0	3.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Bus Stations or Stops	8	0.2%	12	0.2%	16	0.1%	1.5	2.0
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Buses	8	0.2%	10	0.1%	42	0.2%	1.3	5.3
Kurdish Groups Using Arson & IIDs Against Buses	8	0.2%	3	0.0%	1	0.0%	0.4	0.1
Unknown Group or Individuals Using Explosives Against Operating or Security Personnel and Facilities	8	0.2%	2	0.0%	18	0.1%	0.3	2.3
Criminal Using Arson & IIDs Against Passenger Trains	8	0.2%	1	0.0%	4	0.0%	0.1	0.5
Indian Maoist or Communist Groups Using Explosives Against Passenger Trains	8	0.2%	0	0.0%	15	0.1%	0.0	1.9
Miscellaneous Groups Using Arson & IIDs Against Passenger Trains	8	0.2%	0	0.0%	22	0.1%	0.0	2.8
Thai Islamic Groups Using Explosives Against Bus Stations or Stops	8	0.2%	0	0.0%	8	0.0%	0.0	1.0
Miscellaneous Groups Using Explosives Against Passenger Trains	7	0.2%	52	0.7%	203	1.1%	7.4	29.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Buses	7	0.2%	34	0.5%	106	0.6%	4.9	15.1
Criminal Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	7	0.2%	3	0.0%	7	0.0%	0.4	1.0
Criminal Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	7	0.2%	0	0.0%	8	0.0%	0.0	1.1
Miscellaneous Groups Using Arson & IIDs Against Passenger Train Stations	7	0.2%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Sabotage Against All Rail Infrastructure	7	0.2%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Explosives Against Passenger Train Stations	6	0.2%	60	0.8%	198	1.1%	10.0	33.0
Miscellaneous Groups Using Multiple Weapons Against Buses	6	0.2%	29	0.4%	23	0.1%	4.8	3.8
Colombian (FARC or ETA) Groups Using Automatic or Semi Automatic Weapons Against Buses	6	0.2%	16	0.2%	32	0.2%	2.7	5.3
Jihadists Using Arson & IIDs Against Buses	6	0.2%	9	0.1%	39	0.2%	1.5	6.5
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Passenger Trains	6	0.2%	4	0.1%	21	0.1%	0.7	3.5
Indian Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Buses	6	0.2%	2	0.0%	18	0.1%	0.3	3.0
Jihadists Using Explosives Against All Rail Infrastructure	6	0.2%	1	0.0%	1	0.0%	0.2	0.2
Indian Maoist or Communist Groups Using Kidnapping, Hijacking, Robbery Against Passenger Train Stations	6	0.2%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Kidnapping, Hijacking, Robbery Against Passenger Trains	6	0.2%	0	0.0%	6	0.0%	0.0	1.0
Philippine Communist or Islamic Groups Using Automatic or Semi Automatic Weapons Against Buses	5	0.1%	11	0.2%	18	0.1%	2.2	3.6
Thai Islamic Groups Using Explosives Against Buses	5	0.1%	8	0.1%	28	0.2%	1.6	5.6
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Automatic or Semi Automatic Weapons Against Passenger Trains	5	0.1%	7	0.1%	40	0.2%	1.4	8.0
Indian Maoist or Communist Groups Using Multiple Weapons Against Buses	5	0.1%	3	0.0%	5	0.0%	0.6	1.0
Colombian (FARC or ETA) Groups Using Multiple Weapons Against Buses	5	0.1%	2	0.0%	7	0.0%	0.4	1.4
Nepalese Maoist or Communist Groups Using Explosives Against Bus Stations or Stops	5	0.1%	2	0.0%	20	0.1%	0.4	4.0
Criminal Using Stabbings Against Operating or Security Personnel and Facilities	5	0.1%	1	0.0%	7	0.0%	0.2	1.4
Colombian (FARC or ETA) Groups Using Explosives Against All Rail Infrastructure	5	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Multiple Weapons Against Operating or Security Personnel and Facilities	5	0.1%	0	0.0%	3	0.0%	0.0	0.6
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	5	0.1%	0	0.0%	0	0.0%	0.0	0.0
Kurdish Groups Using Derailment Against Passenger Trains	5	0.1%	0	0.0%	3	0.0%	0.0	0.6

Table A6 (cont.)

Group 2 - Attacker Group, Attack Methods and Target Group Combinations	Attacks	% Attacks	Fatalities	% Fatalities	# Injuries	% Injuries	FPA	IPA
Philippine Communist or Islamic Groups Using Explosives Against Bus Stations or Stops	5	0.1%	0	0.0%	31	0.2%	0.0	6.2
Thai Islamic Groups Using Arson & IIDs Against Bus Stations or Stops	5	0.1%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Arson & IIDs Against Passenger Trains	4	0.1%	66	0.9%	18	0.1%	16.5	4.5
Miscellaneous Groups Using Stabbings Against Passenger Train Stations	4	0.1%	32	0.5%	171	0.9%	8.0	42.8
Mentally Disturbed Individual Using Arson & IIDs Against Buses	4	0.1%	30	0.4%	85	0.5%	7.5	21.3
Miscellaneous Groups Using Automatic or Semi Automatic Weapons Against Passenger Trains	4	0.1%	14	0.2%	1	0.0%	3.5	0.3
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	4	0.1%	13	0.2%	9	0.0%	3.3	2.3
Philippine Communist or Islamic Groups Using Kidnapping, Hijacking, Robbery Against Buses	4	0.1%	4	0.1%	0	0.0%	1.0	0.0
Thai Islamic Groups Using Derailment Against Passenger Trains	4	0.1%	4	0.1%	39	0.2%	1.0	9.8
Indian Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	4	0.1%	2	0.0%	11	0.1%	0.5	2.8
Philippine Communist or Islamic Groups Using Multiple Weapons Against Buses	4	0.1%	2	0.0%	0	0.0%	0.5	0.0
Indian Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	4	0.1%	1	0.0%	4	0.0%	0.3	1.0
Indian Maoist or Communist Groups Using Explosives Against Bus Stations or Stops	4	0.1%	1	0.0%	2	0.0%	0.3	0.5
Colombian (FARC or ETA) Groups Using Explosives Against Bus Stations or Stops	4	0.1%	0	0.0%	1	0.0%	0.0	0.3
Indian Maoist or Communist Groups Using Arson & IIDs Against All Rail Infrastructure	4	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Arson & IIDs Against Passenger Trains	4	0.1%	0	0.0%	2	0.0%	0.0	0.5
Indian Maoist or Communist Groups Using Kidnapping, Hijacking, Robbery Against Operating or Security Personnel and Facilities	4	0.1%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Derailment Against Passenger Trains	4	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Bus Stations or Stops	4	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unknown or Miscellaneous Against Passenger Trains	4	0.1%	0	0.0%	20	0.1%	0.0	5.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Executions Against Buses	3	0.1%	45	0.6%	30	0.2%	15.0	10.0
Jihadists Using Unknown or Miscellaneous Against Buses	3	0.1%	11	0.2%	20	0.1%	3.7	6.7
Miscellaneous Groups Using Unknown or Miscellaneous Against Bus Stations or Stops	3	0.1%	11	0.2%	17	0.1%	3.7	5.7
Criminal Using Executions Against Operating or Security Personnel and Facilities	3	0.1%	10	0.1%	0	0.0%	3.3	0.0
Criminal Using Unarmed/Other Assaults Against Buses	3	0.1%	7	0.1%	5	0.0%	2.3	1.7
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Multiple Weapons Against Passenger Trains	3	0.1%	6	0.1%	43	0.2%	2.0	14.3
Indian Separatists (e.g., Kashmir, Assam) Using Explosives Against Operating or Security Personnel and Facilities	3	0.1%	4	0.1%	27	0.1%	1.3	9.0
Thai Islamic Groups Using Explosives Against Operating or Security Personnel and Facilities	3	0.1%	3	0.0%	8	0.0%	1.0	2.7
Unknown Group or Individuals Using Stabbings Against Buses	3	0.1%	3	0.0%	6	0.0%	1.0	2.0
Thai Islamic Groups Using Automatic or Semi Automatic Weapons Against Buses	3	0.1%	2	0.0%	8	0.0%	0.7	2.7
Jihadists Using Multiple Weapons Against Buses	3	0.1%	1	0.0%	14	0.1%	0.3	4.7
Colombian (FARC or ETA) Groups Using Kidnapping, Hijacking, Robbery Against Buses	3	0.1%	0	0.0%	2	0.0%	0.0	0.7
Indian Maoist or Communist Groups Using Arson & IIDs Against Operating or Security Personnel and Facilities	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Arson & IIDs Against Passenger Trains	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Multiple Weapons Against All Rail Infrastructure	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Kurdish Groups Using Explosives Against All Rail Infrastructure	3	0.1%	0	0.0%	19	0.1%	0.0	6.3
Kurdish Groups Using Kidnapping, Hijacking, Robbery Against Buses	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Kidnapping, Hijacking, Robbery Against Passenger Trains	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Multiple Weapons Against Passenger Trains	3	0.1%	0	0.0%	3	0.0%	0.0	1.0
Unknown Group or Individuals Using Unknown or Miscellaneous Against Passenger Train Stations	3	0.1%	0	0.0%	0	0.0%	0.0	0.0
Non-Jihadists Islamic Groups Using Automatic or Semi Automatic Weapons Against Buses	2	0.1%	26	0.4%	40	0.2%	13.0	20.0
Nepalese Maoist or Communist Groups Using Automatic or Semi Automatic Weapons Against Buses	2	0.1%	15	0.2%	2	0.0%	7.5	1.0
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	2	0.1%	13	0.2%	5	0.0%	6.5	2.5
Indian Separatists (e.g., Kashmir, Assam) Using Executions Against Buses	2	0.1%	13	0.2%	3	0.0%	6.5	1.5
Unknown Group or Individuals Using Multiple Weapons Against Operating or Security Personnel and Facilities	2	0.1%	8	0.1%	6	0.0%	4.0	3.0
Miscellaneous Groups Using Stabbings Against Buses	2	0.1%	7	0.1%	0	0.0%	3.5	0.0
Jihadists Using Automatic or Semi Automatic Weapons Against Bus Stations or Stops	2	0.1%	6	0.1%	0	0.0%	3.0	0.0
Kurdish Groups Using Explosives Against Passenger Trains	2	0.1%	6	0.1%	8	0.0%	3.0	4.0
Mentally Disturbed Individual Using Explosives Against Buses	2	0.1%	5	0.1%	41	0.2%	2.5	20.5
Kurdish Groups Using Automatic or Semi Automatic Weapons Against Buses	2	0.1%	4	0.1%	7	0.0%	2.0	3.5
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Bus Stations or Stops	2	0.1%	4	0.1%	34	0.2%	2.0	17.0
Kurdish Groups Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	2	0.1%	3	0.0%	5	0.0%	1.5	2.5
Criminal Using Explosives Against Bus Stations or Stops	2	0.1%	2	0.0%	10	0.1%	1.0	5.0
Indian Separatists (e.g., Kashmir, Assam) Using Automatic or Semi Automatic Weapons Against Bus Stations or Stops	2	0.1%	2	0.0%	1	0.0%	1.0	0.5
Indian Maoist or Communist Groups Using Multiple Weapons Against Passenger Trains	2	0.1%	1	0.0%	3	0.0%	0.5	1.5
Thai Islamic Groups Using Explosives Against Passenger Trains	2	0.1%	1	0.0%	3	0.0%	0.5	1.5
Unknown Group or Individuals Using Derailment Against All Rail Infrastructure	2	0.1%	1	0.0%	1	0.0%	0.5	0.5
Anarchist or Environmental Groups Using Kidnapping, Hijacking, Robbery Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Derailment Against Passenger Trains	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Explosives Against Passenger Trains	2	0.1%	0	0.0%	17	0.1%	0.0	8.5
Indian Maoist or Communist Groups Using Kidnapping, Hijacking, Robbery Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unknown or Miscellaneous Against All Rail Infrastructure	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Arson & IIDs Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Kidnapping, Hijacking, Robbery Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Unarmed/Other Assaults Against Buses	2	0.1%	0	0.0%	4	0.0%	0.0	2.0
Miscellaneous Groups Using Arson & IIDs Against All Rail Infrastructure	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Kidnapping, Hijacking, Robbery Against Passenger Trains	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Multiple Weapons Against Bus Stations or Stops	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Unarmed/Other Assaults Against Buses	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Multiple Weapons Against All Rail Infrastructure	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Philippine Communist or Islamic Groups Using Unknown or Miscellaneous Against Buses	2	0.1%	0	0.0%	2	0.0%	0.0	1.0
Thai Islamic Groups Using Arson & IIDs Against Passenger Train Stations	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Arson & IIDs Against Passenger Train Stations	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unknown or Miscellaneous Against Bus Stations or Stops	2	0.1%	0	0.0%	0	0.0%	0.0	0.0
Jihadist Using Explosives Against Passenger Trains	1	0.0%	189	2.7%	800	4.3%	189.0	800.0
Jihadists Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	1	0.0%	59	0.8%	104	0.6%	59.0	104.0
Indian Separatists (e.g., Kashmir, Assam) Using Multiple Weapons Against Buses	1	0.0%	31	0.4%	62	0.3%	31.0	62.0
Criminal Using Multiple Weapons Against Buses	1	0.0%	30	0.4%	0	0.0%	30.0	0.0
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Buses	1	0.0%	15	0.2%	0	0.0%	15.0	0.0
Miscellaneous Groups Using Executions Against Buses	1	0.0%	12	0.2%	0	0.0%	12.0	0.0
Jihadists Using Stabbings Against Buses	1	0.0%	11	0.2%	6	0.0%	11.0	6.0
Mentally Disturbed Individual Using Vehicle Ramming Against Bus Stations or Stops	1	0.0%	9	0.1%	2	0.0%	9.0	2.0
Mentally Disturbed Individual Using Automatic or Semi Automatic Weapons Against Buses	1	0.0%	6	0.1%	16	0.1%	6.0	16.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Automatic or Semi Automatic Weapons Against Buses	1	0.0%	6	0.1%	10	0.1%	6.0	10.0
Jihadists Using Unknown or Miscellaneous Against Operating or Security Personnel and Facilities	1	0.0%	5	0.1%	0	0.0%	5.0	0.0
Left-Wing Groups Using Explosives Against Buses	1	0.0%	4	0.1%	14	0.1%	4.0	14.0
Philippine Communist or Islamic Groups Using Executions Against Buses	1	0.0%	4	0.1%	0	0.0%	4.0	0.0
Unknown Group or Individuals Using Executions Against Operating or Security Personnel and Facilities	1	0.0%	4	0.1%	0	0.0%	4.0	0.0
Indian Maoist or Communist Groups Using Explosives Against Operating or Security Personnel and Facilities	1	0.0%	3	0.0%	0	0.0%	3.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Multiple Weapons Against Bus Stations or Stops	1	0.0%	3	0.0%	20	0.1%	3.0	20.0
Colombian (FARC or ETA) Groups Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	1	0.0%	2	0.0%	0	0.0%	2.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Stabbings Against Buses	1	0.0%	2	0.0%	0	0.0%	2.0	0.0
Jihadists Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	1	0.0%	2	0.0%	2	0.0%	2.0	2.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	1	0.0%	2	0.0%	0	0.0%	2.0	0.0
Indian Maoist or Communist Groups Using Executions Against Buses	1	0.0%	1	0.0%	0	0.0%	1.0	0.0
Indian Maoist or Communist Groups Using Executions Against Passenger Train Stations	1	0.0%	1	0.0%	0	0.0%	1.0	0.0
Mentally Disturbed Individual Using Unarmed/Other Assaults Against Operating or Security Personnel and Facilities	1	0.0%	1	0.0%	0	0.0%	1.0	0.0
Miscellaneous Groups Using Arson & IIDs Against Bus Stations or Stops	1	0.0%	1	0.0%	0	0.0%	1.0	0.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	1	0.0%	1	0.0%	2	0.0%	1.0	2.0

Table A7. Lethality of Combinations of Attacker Group, Attack Method, and Target Group in Attacks in Group 2 Countries

Group 2 - Attacker Group, Attack Methods and Target Group Combinations	Attacks	% Attacks	Fatalities	%Fatalities	#Injuries	%Injuries	FPA	IPA
Colombian (FARC or ETA) Groups Using Explosives Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Colombian (FARC or ETA) Groups Using Unarmed/Other Assaults Against Buses	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Arson & IIDs Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Explosives Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Kidnapping, Hijacking, Robbery Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Multiple Weapons Against Passenger Train Stations	1	0.0%	0	0.0%	5	0.0%	0.0	5.0
Criminal Using Sabotage Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Sabotage Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Sabotage Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Criminal Using Stabbings Against Passenger Train Stations	1	0.0%	0	0.0%	2	0.0%	0.0	2.0
Indian Maoist or Communist Groups Using Sabotage Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Sabotage Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Sabotage Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against Bus Stations or Stops	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Maoist or Communist Groups Using Unarmed/Other Assaults Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Multiple Weapons Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Sabotage Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Indian Separatists (e.g., Kashmir, Assam) Using Unknown or Miscellaneous Against Buses	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Jihadists Using Multiple Weapons Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	1	0.0%	0.0	1.0
Jihadists Using Unarmed/Other Assaults Against Bus Stations or Stops	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Kurdish Groups Using Explosives Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Kurdish Groups Using Unknown or Miscellaneous Against Passenger Train Stations	1	0.0%	0	0.0%	3	0.0%	0.0	3.0
Mentally Disturbed Individual Using Stabbings Against Buses	1	0.0%	0	0.0%	8	0.0%	0.0	8.0
Mentally Disturbed Individual Using Stabbings Against Passenger Trains	1	0.0%	0	0.0%	9	0.0%	0.0	9.0
Miscellaneous Groups Using Arson & IIDs Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Explosives Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	12	0.1%	0.0	12.0
Miscellaneous Groups Using Kidnapping, Hijacking, Robbery Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Multiple Weapons Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Multiple Weapons Against Passenger Trains	1	0.0%	0	0.0%	1	0.0%	0.0	1.0
Miscellaneous Groups Using Stabbings Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	14	0.1%	0.0	14.0
Miscellaneous Groups Using Unarmed/Other Assaults Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Miscellaneous Groups Using Unarmed/Other Assaults Against Passenger Trains	1	0.0%	0	0.0%	10	0.1%	0.0	10.0
Miscellaneous Groups Using Unknown or Miscellaneous Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Nepalese Maoist or Communist Groups Using Arson & IIDs Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Nepalese Maoist or Communist Groups Using Arson & IIDs Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Nepalese Maoist or Communist Groups Using Derailment Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Nepalese Maoist or Communist Groups Using Explosives Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Nepalese Maoist or Communist Groups Using Kidnapping, Hijacking, Robbery Against Buses	1	0.0%	0	0.0%	4	0.0%	0.0	4.0
Nepalese Maoist or Communist Groups Using Multiple Weapons Against Buses	1	0.0%	0	0.0%	12	0.1%	0.0	12.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Arson & IIDs Against Passenger Trains	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Explosives Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Pakistani Separatists (e.g., Baluchistan, Sindhustan) Using Unarmed/Other Assaults Against All Rail Infrastructure	1	0.0%	0	0.0%	5	0.0%	0.0	5.0
Philippine Communist or Islamic Groups Using Arson & IIDs Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Arson & IIDs Against Buses	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Automatic or Semi Automatic Weapons Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Automatic or Semi Automatic Weapons Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Multiple Weapons Against Bus Stations or Stops	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Thai Islamic Groups Using Multiple Weapons Against Passenger Train Stations	1	0.0%	0	0.0%	2	0.0%	0.0	2.0
Thai Islamic Groups Using Multiple Weapons Against Passenger Trains	1	0.0%	0	0.0%	1	0.0%	0.0	1.0
Unknown Group or Individuals Using Arson & IIDs Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	1	0.0%	0.0	1.0
Unknown Group or Individuals Using Automatic or Semi Automatic Weapons Against All Rail Infrastructure	1	0.0%	0	0.0%	9	0.0%	0.0	9.0
Unknown Group or Individuals Using Multiple Weapons Against Bus Stations or Stops	1	0.0%	0	0.0%	1	0.0%	0.0	1.0
Unknown Group or Individuals Using Multiple Weapons Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Sabotage Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Stabbings Against Bus Stations or Stops	1	0.0%	0	0.0%	3	0.0%	0.0	3.0
Unknown Group or Individuals Using Unarmed/Other Assaults Against Passenger Train Stations	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unknown or Miscellaneous Against All Rail Infrastructure	1	0.0%	0	0.0%	0	0.0%	0.0	0.0
Unknown Group or Individuals Using Unknown or Miscellaneous Against Operating or Security Personnel and Facilities	1	0.0%	0	0.0%	2	0.0%	0.0	2.0
TOTAL/PERCENTAGES/AVERAGES	3360	100.0%	7060	100.0%	18503	100.0%	2.1	5.5

APPENDIX B: ADDITIONAL FIGURES

The figures in this appendix are referred to in the text but are not included there because no significant changes in distribution or lethality were apparent.

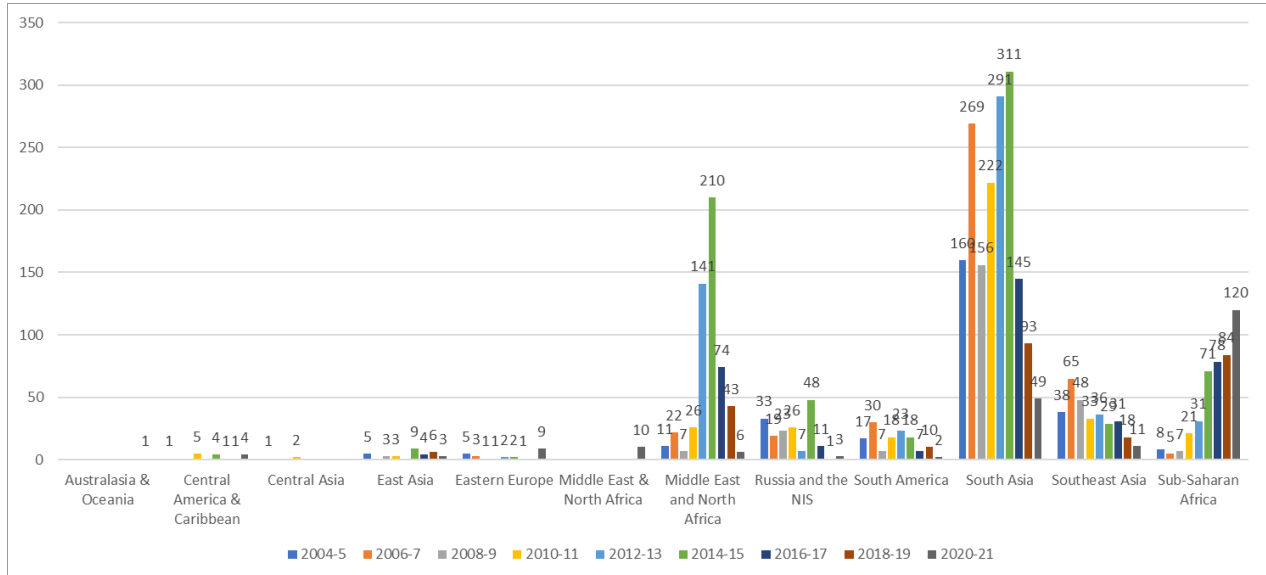


Figure B1. Number of Fatal Attacks in Group 2 Countries by Region

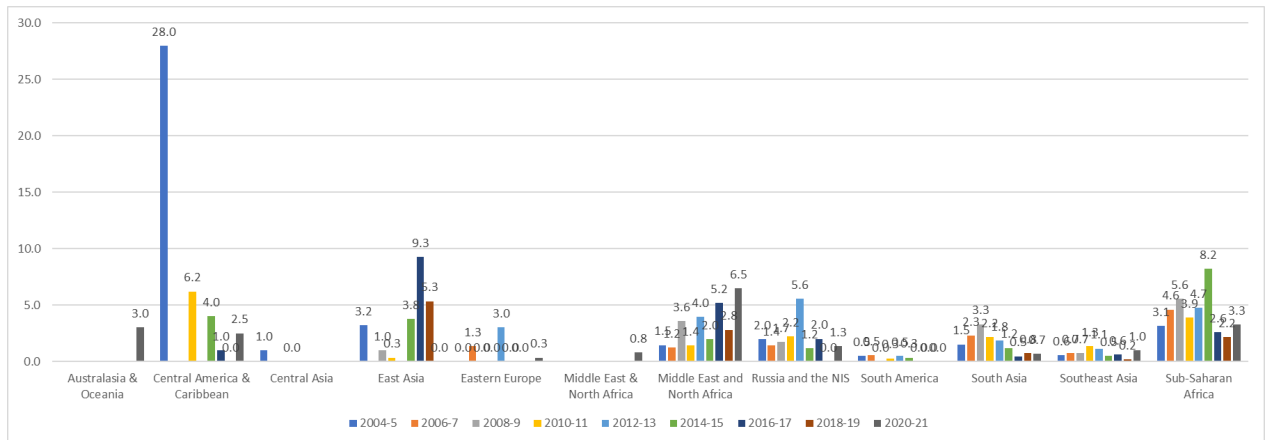


Figure B2. Lethality of Fatal Attacks in Group 2 Countries

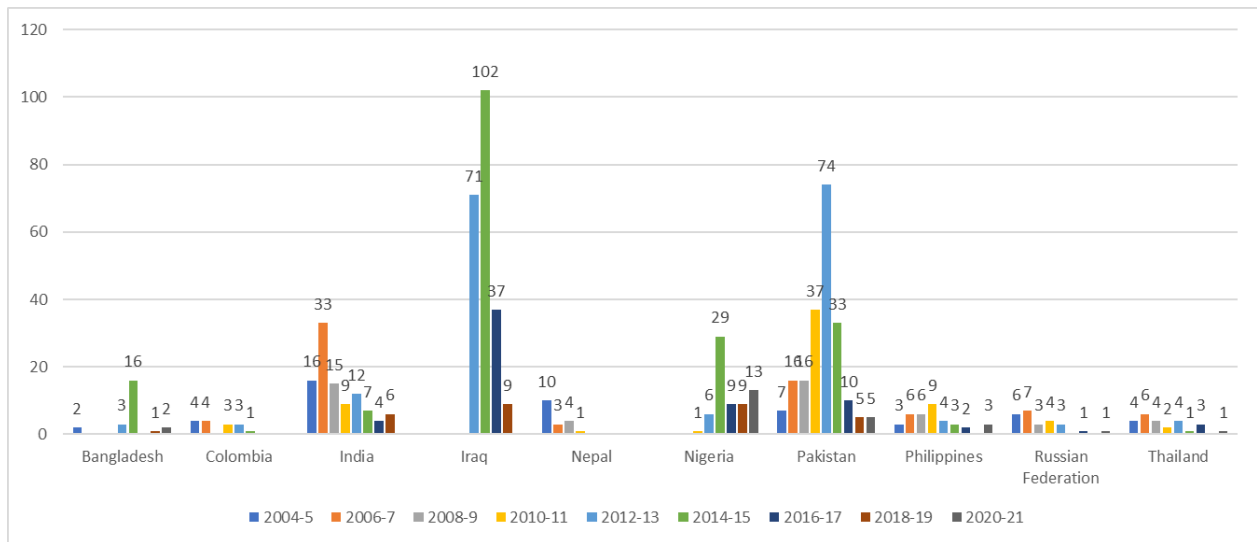


Figure B3. Number of Fatal Attacks in Top 10 Group 2 Countries

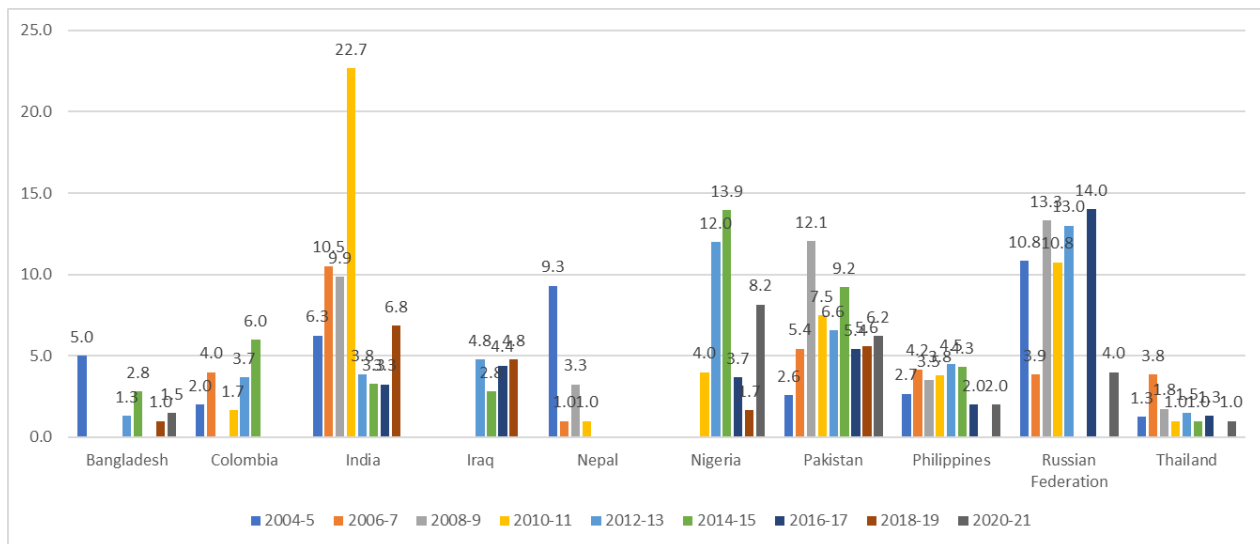


Figure B4. Lethality of Fatal Attacks in Top 10 Group 2 Countries

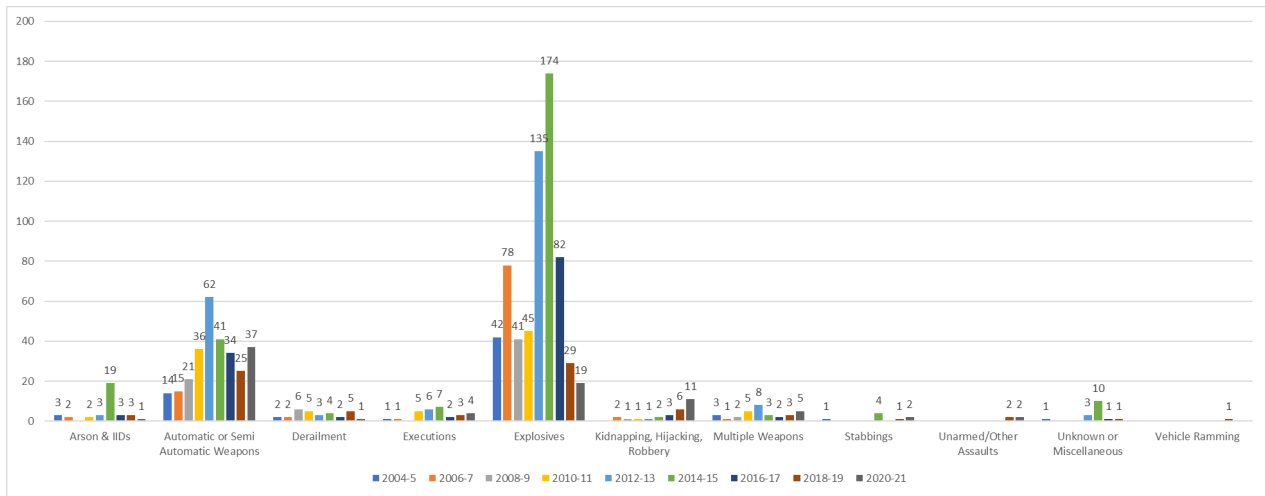


Figure B5. Number of Fatal Attacks in Group 2 Countries by Attack Method

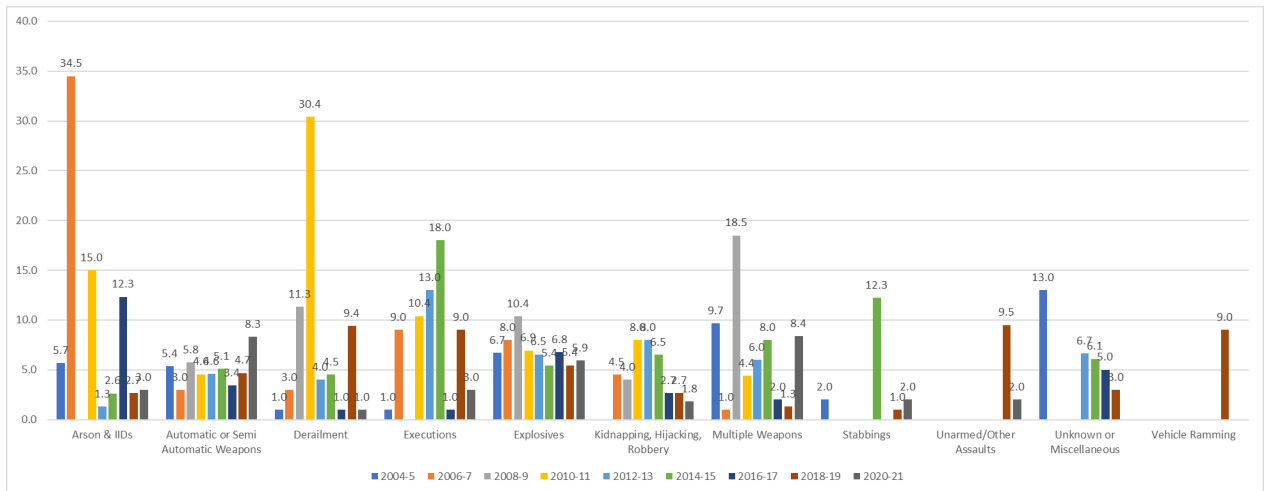


Figure B6. Lethality of Fatal Attacks in Group 2 Countries by Attack Method

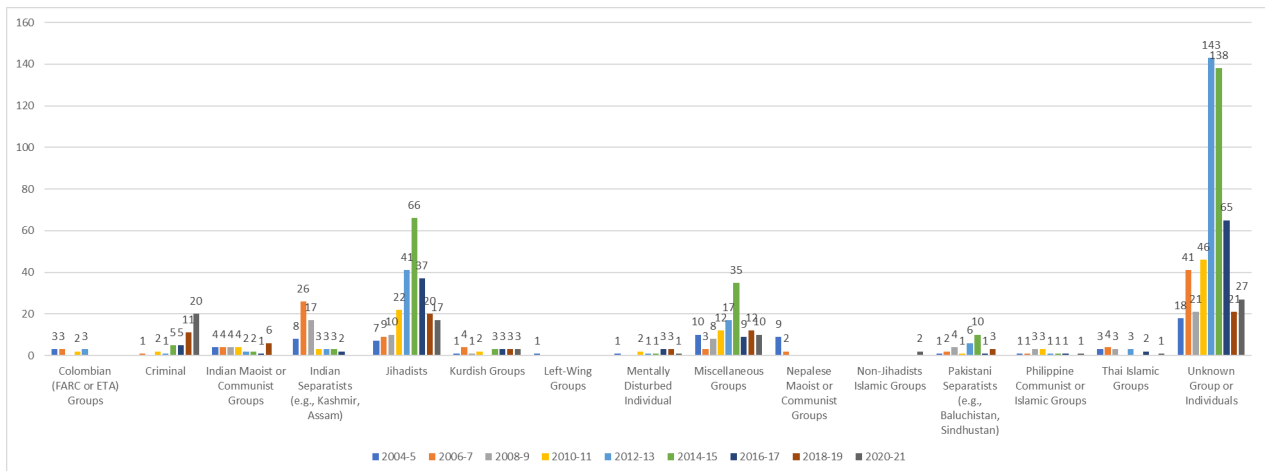


Figure B7. Number of Fatal Attacks in Group 2 Countries by Attacker Groups

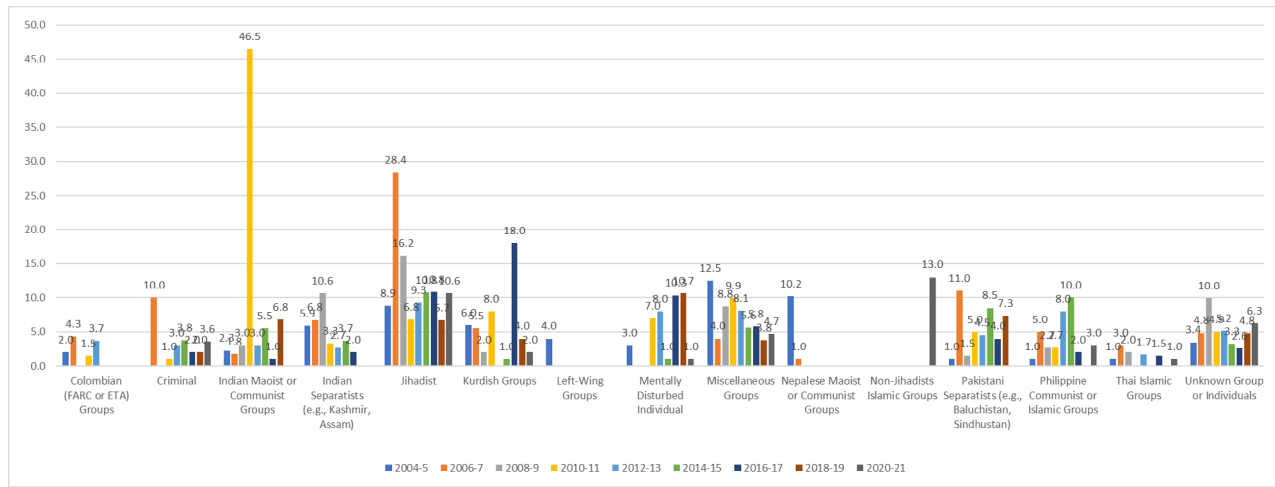


Figure B8. Lethality of Fatal Attacks in Group Countries by Attacker Group

ABOUT THE AUTHORS

BRIAN MICHAEL JENKINS

Brian Michael Jenkins is the Director of the Mineta Transportation Institute's Allied Telesis National Transportation Security Center and, since 1997, has directed the Institute's continuing research on protecting surface transportation against terrorism and other serious forms of crime.

BRUCE R. BUTTERWORTH

Bruce R. Butterworth is a Senior Transportation Security Researcher at MTI and former Director of Aviation Security Operations at the Federal Aviation Administration. Bruce has taken a leading role in creating MTI's unique database of attacks on public surface transportation.

SACHI YAGYU

Sachi Yagyu is a Transportation Security Specialist at MTI, and previously served as a Research Librarian and Library Research Services Team Lead for the Santa Monica Office of the RAND Corporation. She holds a Master of Library Science Degree from UCLA.

MTI FOUNDER

Hon. Norman Y. Mineta

MTI BOARD OF TRUSTEES

Founder, Honorable Norman Mineta***
Secretary (ret.),
US Department of Transportation

Chair, Jeff Morales
Managing Principal
InfraStrategies, LLC

Vice Chair, Donna DeMartino
Retired Transportation Executive

Executive Director, Karen Philbrick, PhD*
Mineta Transportation Institute
San José State University

Rashidi Barnes
CEO
Tri Delta Transit

David Castagnetti
Partner
Dentons Global Advisors

Maria Cino
Vice President
America & U.S. Government
Relations Hewlett-Packard Enterprise

Grace Crunican**
Owner
Crunican LLC

John Flaherty
Senior Fellow
Silicon Valley American
Leadership Form

Stephen J. Gardner*
President & CEO
Amtrak

Ian Jefferies*
President & CEO
Association of American Railroads

Diane Woodend Jones
Principal & Chair of Board
Lea + Elliott, Inc.

Will Kempton
Retired Transportation Executive

David S. Kim
Senior Vice President
Principal, National Transportation
Policy and Multimodal Strategy
WSP

Therese McMillan
Retired Executive Director
Metropolitan Transportation
Commission (MTC)

Abbas Mohaddes
CEO
Econolite Group Inc.

Stephen Morrissey
Vice President – Regulatory and
Policy
United Airlines

Toks Omishakin*
Secretary
California State Transportation
Agency (CALSTA)

Marco Pagani, PhD*
Interim Dean
Lucas College and
Graduate School of Business
San José State University

April Rai
President & CEO
Conference of Minority
Transportation Officials (COMTO)

Greg Regan*
President
Transportation Trades Department,
AFL-CIO

Rodney Slater
Partner
Squire Patton Boggs

Paul Skoutelas*
President & CEO
American Public Transportation
Association (APTA)

Kimberly Slaughter
CEO
Systra USA

Tony Tavares*
Director
California Department of
Transportation (Caltrans)

Jim Tymon*
Executive Director
American Association of
State Highway and Transportation
Officials (AASHTO)

Josue Vaglienty
Senior Program Manager
Orange County Transportation
Authority (OCTA)

* = Ex-Officio
** = Past Chair, Board of Trustees
*** = Deceased

Directors

Karen Philbrick, PhD
Executive Director

Hilary Nixon, PhD
Deputy Executive Director

Asha Weinstein Agrawal, PhD
Education Director
National Transportation Finance
Center Director

Brian Michael Jenkins
National Transportation Security
Center Director

