

Trajectories of terrorism

Attack patterns of foreign groups that have targeted the United States, 1970–2004

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Research Summary

Although researchers began to assemble open-source terrorism event databases in the late 1960s, until recently most of these databases excluded domestic attacks. This exclusion is particularly misleading for the United States because, although the United States is often perceived to be the central target of transnational terrorism, the domestic attacks of foreign groups targeting the United States are often ignored. We began this article with 53 foreign terrorist groups that have been identified by U.S. State Department and other government sources as posing a special threat to the United States. Using newly available data from the Global Terrorism Database composed of both domestic and transnational terrorist attacks, we examined 16,916 attacks attributed to these groups between 1970 and 2004. We found that just 3% of attacks by these designated anti-U.S. groups were actually directed at the United States. Moreover, 99% of attacks targeting the United States did not occur on U.S. soil but were aimed at U.S. targets in other countries (e.g., embassies or multilateral corporations). We also found that more than 90% of the non-U.S. attacks were domestic (i.e., nationals from one country attacking targets of the same nationality in the same country). We used group-based trajectory analysis to examine the different developmental trajectories of U.S. target and non-U.S. target terrorist strikes and concluded that four trajectories best capture attack patterns for both. These trajectories outline three terrorist

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waves—which occurred in the 1970s, 1980s, and the early 21st century—as well as a trajectory that does not exhibit wave-like characteristics but instead is characterized by irregular and infrequent attacks.

Policy Implications

Our results underscore the importance of proximity for terrorist targeting. Terrorists, like ordinary criminals, are likely to choose targets close to their operational base. However, when attacks occur further from the terrorists' home bases, they are more deadly. Approximately half of the terrorist organizations studied here exhibited wave-like boom and bust attack trajectories. Given that most attacks by groups identified as threats by the U.S. government are in fact aimed at non-U.S. domestic targets, the United States should pursue efforts to strengthen the capacity of local governments to combat terrorism and to communicate to them our understanding that groups that are anti-United States are also a threat to local governments. In framing counterterrorism policies, the United States should put threats into perspective by acknowledging that we are the exception and local governments are the rule. Terrorism is not just about us.

Keywords

global terrorism database, terrorism targets, terrorism trends, terrorist groups, anti-U.S. attacks, trajectory analysis, terrorism waves

Compared with most types of criminal violence, terrorism poses special data-collection challenges. To begin, the term “terrorism” yields varying definitions that are often loaded with political and emotional implications. Even different branches of the U.S. government have adopted unique definitions of terrorism (cf. Federal Bureau of Investigation, 1997; U.S. Department of State, 2001). Although government departments in some countries collect official data on terrorism (e.g., the U.S. National Counterterrorism Center [NCTC]), data collected by governments are suspicious either because they are influenced by political considerations or because many fear that they might be so influenced. Moreover, although vast amounts of detailed official data on common crimes are routinely produced by the various branches of the criminal justice system in most countries, this rarely is the case for terrorism. For example, most offenders suspected of terrorism against the United States are not legally processed for terrorism but rather for other related offenses, such as weapons violations and money laundering (Smith, Damphousse, Jackson, and Sellers, 2002). In addition, much primary data are collected by intelligence agents (e.g., informants and communications intercepts) and are not available to researchers working in an unclassified environment.

In response to these data challenges, researchers have long relied on open-source unclassified terrorism event databases. Terrorism event databases generally use electronic and print media to collect detailed information on the characteristics of terrorist attacks. LaFree and Dugan (2007)

described eight of these event databases, which provide varying coverage extending to 1968. Analyses based on these open-source event databases have provided important insights into a wide range of terrorism-related empirical questions, which include trends in terrorism over time (LaFree and Dugan, 2009), the deterrent effect of new antiterrorism policies (Dugan, LaFree, and Piquero, 2005; LaFree, Dugan, and Korte, 2009), and the economic effect of terrorist attacks (Greenbaum, Dugan, and LaFree, 2007; Richardson, Gordon, and Moore, 2005).

However, an important limitation of most open-source databases is that they include only transnational events—those that involve a national or a group of nationals from one country attacking targets in another country or attacking foreign targets in their home country. This limitation is potentially critical because sources that compared domestic and transnational terrorist attacks (Asal and Rethemeyer, 2007; LaFree and Dugan, 2007; Neumayer and Plumper, 2008; Schmid, 2004) concluded that the former outnumber the latter by as much as seven to one. Moreover, as Falkenrath (2001: 164) pointed out, dividing bureaucratic responsibility and legal authority according to a domestic-international distinction is “an artifact of a simpler, less globally interconnected era.” Some groups such as al Qaeda have global operations that cut across domestic and international lines. Others (e.g., the Abu Nidal Organization and the Kurdistan Workers’ Party) operate in multiple countries and, hence, might simultaneously be engaged in acts of both domestic and transnational terrorism. In short, excluding domestic terrorist attacks may impede a more sophisticated understanding of terrorism and ultimately weaken counterterrorism efforts.

The fact that most unclassified terrorism databases have excluded domestic terrorist attacks has special relevance for the United States because the United States has long been perceived as the target of an inordinate number of terrorist attacks. Thus, the U.S. State Department has claimed that one third of all terrorist attacks worldwide are directed at the United States (Crenshaw, 2006). Neumayer and Plumper (2008) also argued that, when it comes to transnational terrorism, most victims of foreign attacks are U.S. citizens. However, because previous estimates have been based only on transnational terrorist attacks, they do not take into account the possibility that most terrorist attacks are local. Thus, in one of the few analyses of both domestic and transnational terrorist attacks from around the world, LaFree and Dugan (2009) found that the United States was not the number one target of terrorist groups from 1970 to 2004, but instead ranked 19th among all countries in terms of total attacks.¹

In this article, we include both domestic and transnational terrorist events in an examination of the attack patterns of a select number of foreign nonstate organizations identified by the Department of State as posing the greatest threat to U.S. citizens. This strategy was motivated in large part by the overwhelming public and policy preoccupation with the questions of “why

1. The 18 countries with more terrorist attacks than the United States during this period were (in order): Colombia, Peru, El Salvador, India, Northern Ireland (treated here as a country), Spain, Turkey, Pakistan, Sri Lanka, the Philippines, Chile, Guatemala, Israel (excluding the Palestine territories), Nicaragua, Lebanon, Algeria, South Africa, and Italy. The United States ranked 15th in total fatalities, including the above list minus Chile, Israel, South Africa, and Italy.

do they hate us” in the wake of the 9/11 attacks (Crenshaw, 2001; Hoge and Rose, 2001). This frequently asked question led us to focus on foreign groups that target or have targeted the United States to put al Qaeda and the 9/11 attacks in perspective. In addition, most quantitative analysis of terrorism to this point has used terrorist attacks as the unit of analysis, often in relation to country-level data on economic, political, and social indicators (e.g., Dugan, LaFree, and Piquero, 2005; Li, 2005). We noted an almost complete absence of analyses of the groups themselves and their targeting patterns. Thus, we link attacks to the specific groups that the U.S. government itself deemed most threatening to U.S. interests. This investigation is an appropriate point of departure for better understanding al Qaeda and for developing a group-level analysis of terrorism.²

Based on newly available data on 16,916 terrorist incidents between 1970 and 2004, we compared the attacks of 53 foreign terrorist groups against the United States with those they perpetrated against other countries. We also used trajectory analysis to identify trends in attack patterns among the different groups. The results reveal that most attacks—even from these groups that are considered to be specifically anti-United States—have not been directed at the United States. Moreover, the relatively small proportion of attacks on the United States from these groups is overwhelmingly accounted for by attacks that happened not on U.S. soil, but against U.S. targets located in other countries (e.g., embassies and corporations). Non-U.S. attacks by these designated anti-U.S. groups have also been overwhelmingly domestic: More than 90% of all attacks analyzed here were perpetrated by offenders against local targets within their own countries. We also found that terrorist attacks directed against the United States and those directed against non-U.S. targets since 1970 can be divided into four main trajectories. Although overlap exists in the structures of these trajectories and in the specific groups they contain, important differences are indicated. In the next section, we describe open-source terrorism event databases in more detail before turning to the specific policy questions that guided our analyses.

Terrorism Event Databases

Beginning in the late 1960s, a growing number of government and private entities began collecting open-source data on terrorist attacks. Among the most extensive and influential of these databases to date have been: (1) RAND-The Memorial Institute for the Prevention of Terrorism (MIPT),³ (2) International Terrorism: Attributes of Terrorist Events (ITERATE), (3) the U.S. State Department, and (4) the Global Terrorism Database (GTD).⁴ In general, all

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2. An additional practical consideration that influenced our choice of methodological strategy is that linking attacks to specific groups is a labor-intensive process and is much more manageable for the subset of groups that routinely target the United States than for all extant terrorist groups.
 3. MIPT is a nonprofit organization established after the bombing of Oklahoma City's Alfred P. Murrah Federal Building on April 19, 1995.
 4. This list is by no means exhaustive. For example, a large data-collection effort on terrorism and other types of criminal and political violence is currently under way at Sam Houston State University (Hale, 2006).

of these databases have relied on some combination of unclassified print and electronic media. In 1972, the RAND Corporation, which is a nonprofit policy research institution, began collecting annual information on transnational terrorist attacks until 1997 (LaFree, Dugan, and Cragin, in press). After the 9/11 attacks, RAND collaborated with MIPT to resume collecting terrorist attack data—this time both transnational and domestic—beginning in 1998. The RAND-MIPT joint data collection ended in March 2008.⁵

The ITERATE data, which were originally collected by Mickolus (1982), have probably been the most widely used archival source of terrorism data in terms of empirical research (Enders and Sandler, 2006). ITERATE contains quantitatively coded data on international terrorist incidents as well as qualitative descriptions of each incident. The quantitative data are arranged into four information files: (1) type of terrorist attack (i.e., location, name of group taking responsibility, and number of deaths and injuries), (2) fate of the terrorist individuals or groups claiming responsibility, (3) hostage events, and (4) skyjackings.

In 1982, the U.S. State Department began publishing an annual report (later called *Patterns of global terrorism*) on transnational terrorism, which described incidents occurring in 1980 (U.S. Department of State, 2001). The report reviewed transnational terrorist attacks by year, date, region, and group and provided background information on terrorist organizations, U.S. terrorism policy, and progress on counterterrorism. When the report issued on April 30, 2004, mistakenly concluded that “worldwide terrorism had dropped by 45 percent between 2001 and 2003,” it unleashed a flood of criticism from lawmakers. As results of this criticism, (1) the name of the report was changed to *Country reports on terrorism*, (2) the statistical data and chronology of “significant” international terrorist events were dropped, and (3) Congress mandated that terrorism statistics were henceforth to be compiled by the newly created National Counterterrorism Center (NCTC). In recent years, the NCTC has made terrorist attack data available to the public on an official Web site (wits.nctc.gov).

Currently, the only open-source worldwide terrorist event database collecting both transnational and domestic terrorism data for an extended period of time is the GTD—which was used in our analysis. Because the GTD is described in detail elsewhere (LaFree and Dugan, 2007), we only review some of its important characteristics here. The original platform for the GTD was the Pinkerton Global Intelligence Services (PGIS) database. From 1970 to 1997, the PGIS trained researchers to identify and record terrorism incidents from wire services (including Reuters and the Foreign Broadcast Information Service), U.S. State Department reports, other U.S. and foreign government reporting, U.S. and foreign newspapers (including the *New York Times*, *British Financial Times*, *Christian Science Monitor*, *Washington Post*, *Washington Times*, and *Wall Street Journal*), and information provided by PGIS offices around the world. In more recent years, PGIS researchers have increasingly relied on the Internet.

5. At the time this article was being prepared, RAND was still collecting terrorism event data but was no longer making it available on a public Web site.

The PGIS defined terrorism as an event involving “the threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation.” Based on the coding rules originally developed in 1970, the people responsible for collecting the PGIS data excluded criminal acts that seemed to be devoid of any political or ideological motivation and acts resulting from open combat between opposing armed forces (both regular and irregular). Data collectors also excluded actions taken by governments in the legitimate exercise of their authority, even when such actions were denounced by domestic and foreign critics as acts of “state terrorism.” However, they included violent acts that were not officially sanctioned by government, even in cases in which many observers believed that the government was openly tolerating the violent actions.

In December 2005, a team at the University of Maryland completed creating electronic files of PGIS data, which consisted of more than 67,000 events that occurred around the world from 1970 to 1997 (LaFree and Dugan, 2007).⁶ We refer to the resulting database—constructed on the original PGIS platform—as the GTD. In April 2006, the National Consortium for the Study of Terrorism and Responses to Terrorism (START) received funding from the Human Factors Division of the Department of Homeland Security to extend the GTD beyond 1997. The new GTD data collection captures information on more than 120 variables and stores the original open-source texts on which each case is based. The START Consortium released an updated, synthesized version of the complete GTD through 2007 in June 2009 (start.umd.edu/data/gtd/).⁷ However, at the time this article was being prepared, the most recent data had ended in 2004.

Selection of Anti-U.S. Groups

To identify foreign non-state actors that have posed a serious threat to U.S. citizens since 1970 (the first year for which GTD were available), we relied on three main sources. First, we examined the foreign groups identified by the U.S. State Department’s Bureau of Diplomatic Security annual publication, *Significant incidents of political violence against Americans* (which later became simply, *Political violence against Americans*).⁸ Second, we supplemented and validated these records with a list of terrorist groups compiled by the Office of the Historian, Bureau of Public Affairs (2001). And finally, based on a literature review, we updated this list by adding six foreign groups that came to prominence after the 9/11 attacks (al Qaeda in the

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6. Most of the 1993 data in the GTD were lost by the original collectors (LaFree and Dugan, 2007). For this report, we re-collected 1993 data for the 53 groups. For 1993 transnational attacks, we systematically compared the new data collection with RAND-MIPT and ITERATE data. However, because the GTD is the only unclassified event database that included domestic terrorist attacks in 1993, no obvious comparison source is available for 1993 domestic data. For these reasons, we subject the results for 1993 to additional scrutiny throughout the analysis.
 7. START will continue to provide updated versions of the GTD to researchers through its Web site (start.umd.edu/data/gtd/).
 8. Particularly useful was the 1997 report, which contains a summary account of “Lethal attacks versus Americans, 1968–1997.”

Arabian Peninsula, Jaish-e-Mohammad, Jemaah Islamiya, Lashkar-e Taiba, Lashkar I Jhangvi, and the Taliban).

We next combined splinter groups in the analysis but separated several successor groups. Thus, we included the Anti-Imperialist International Brigade as part of the Japanese Red Army because it was their Middle Eastern branch when they left Japan. Similarly, we collapsed al Faran, Harakut-ul Ansar, and Harkat-ul Mujahidin into a single organization because they simply went through several name changes. The Farabundo Marti National Liberation Front (FMLN) is an umbrella organization that brought together five groups in 1980: the Central American Workers' Revolutionary Party (PRTC), the People's Revolutionary Army (ERP), the Farabundo Marti Popular Liberation Forces (FPL), the Armed Forces of National Resistance, and the Communist Party of the Armed Forces of Liberation. But because the ERP and the PRTC for the most part continued to operate independently of the FMLN, we included them as separate groups in our analyses.

And finally, we deleted four groups that either did not claim responsibility for any attacks in our data (Action for National Liberation, Islamic Revolutionary Council of Pakistan, and Islamic Movement of Change of Saudi Arabia)⁹ or used generic group names that cannot be reliably linked to a specific group (e.g., Islamic Jihad of Turkey, because Islamic Jihad was associated with many Islamic groups). Taken together, these processes produced a total of 53 foreign organizations considered by the U.S. government to pose serious security threats to the United States.

In Table 1, we show all the groups included in the analysis, along with the country or countries that served as their home base, their years of activity, and whether they claimed or were strongly implicated in any attacks against the United States during the analysis period.¹⁰ Because terrorist attacks in Israel and the Palestine territories were often spatially and politically linked and boundaries have been fiercely disputed, we combined them here as a single "country."

Table 1 shows that, of the 53 groups included, we classified only one group (al Qaeda) as truly international (defined here as having major operations in more than three countries). In addition, one group (Black September Organization) had known operations in three countries—Jordan, Lebanon, and Israel/Palestine. Four other groups (the Abu Nidal Organization, al-Gama'at al-Islamiyya, the Eritrean Liberation Front, and the Popular Front for the Liberation of Palestine [PFLP]) had operations in two countries. All other groups in the analysis operated mostly in a single country. The countries with the largest number of terrorist groups were Israel/Palestine with five groups, and Colombia, the Philippines, and Pakistan, with four groups.

9. Although widely recognized as posing a serious threat to the United States, five groups (al Faran/Harkat-ul Mujahidin and Lashkar-e Taiba of Pakistan, al Qaeda in Mesopotamia, Ansar al-Islam of Iraq, and the Palestine Liberation Front) had no recorded attacks on the United States (or U.S. targets in other countries) from 1970 to 2004. We therefore excluded these groups from the analysis of U.S. attacks but kept them in the analysis of non-U.S. attacks.

10. Many attacks in open-source databases on terrorism are never attributed to a specific group. In the GTD, only 1,363 (53.1%) of 2,564 total attacks targeting the United States from 1970 to 2004 were not attributed to a specific terrorist organization.

TABLE 1

Fifty-three terrorist groups identified as anti-U.S., 1970–2004

Name of Group	Years of Country of Origin	U.S. Activities (in GTD)	Attacks?
Abu Nidal Organization (ANO)	Iraq, Israel/ Palestine	1976–1998	Yes
Abu Sayyaf Group (ASG)	Philippines	1993–2004	Yes
al-Gama'at al-Islamiyya (IG)	Egypt, Afghanistan	1991–1998	Yes
al Faran/Harkat-ul Mujahidin (HuM)	Pakistan	1995–2004	No
al Qaeda	International	1998–2004	Yes
al Qaeda in the Arabian Peninsula (AQAP)	Saudi Arabia	2004	Yes
al Qaeda in Mesopotamia	Iraq	2004	No
Ansar al-Islam	Iraq	2002–2003	No
Black September Organization	Jordan, Lebanon, Israel/Palestine	1971–1974	Yes
Central American Revolutionary Workers Party (PRTC)	El Salvador	1979	Yes
Dev Sol	Turkey	1979–1996	Yes
Ejercito Revolucionaria del Pueblo (ERP)	Argentina	1970–1980	Yes
Eritrean Liberation Front	Eritrea, Ethiopia	1970–1992	Yes
Farabundo Marti National Liberation Front (FMLN)	El Salvador	1978–1994	Yes
Hizballah	Lebanon	1981–2004	Yes
Islamic Movement of Uzbekistan (IMU)	Uzbekistan	2000–2004	Yes
Jaish-e-Mohammad	Pakistan	2000–2003	Yes
Japanese Red Army (JRA)	Japan	1972–1988	Yes
'emaah Islamiya (JI)	Indonesia	2002–2004	Yes
Lashkar-e-Taiba	Pakistan	1999–2004	No
Lashkar I Jhangvi	Pakistan	1996–2004	No
Lebanese Armed Revolutionary Faction (LARF)	Lebanon	1981–1985	Yes
Lebanese Socialist Revolutionary Organization	Lebanon	1973–1974	Yes
M-19 (Movement of April 19)	Colombia	1976–1997	Yes
Manuel Rodriguez Patriotic Front (FPMR)	Chile	1984–1997	Yes
Marxist-Leninist Armed Propaganda Unit	Turkey	1977–1980	Yes
Montoneros	Argentina	1970–1991	Yes
Moro Islamic Liberation Front (MILF)	Philippines	1986–2004	Yes
Moro National Liberation Front (MNLF)	Philippines	1975–2001	Yes
Mujahideen-I-Khalq (MK)	Iran	1972–2001	Yes
National Liberation Army of Colombia (ELN)	Colombia	1972–2001	Yes
Nestor Paz Zamora Commission (CNPZ)	Bolivia	1990	Yes
New People's Army (NPA)	Philippines	1970–2004	Yes
November 17 Revolutionary Organization (N17RO)	Greece	1976–2001	Yes
Palestine Liberation Front (PLF)	Israel/Palestine	1979–2004	No
Patriotic Morazanista Front (FPM)	Honduras	1988–1995	Yes
People's Liberation Forces (FPL)	El Salvador	1977–1979	Yes
Popular Front for the Liberation of Palestine (PFLP)	Israel/ Palestine, Syria	1970–2004	Yes
Popular Front for the Liberation of Palestine, General Command (PFLP-GC)	Israel/ Palestine	1970–2003	Yes
Popular Liberation Army (EPL)	Colombia	1976–2003	Yes
Popular Revolutionary Vanguard (VPR)	Brazil	1970–1976	Yes
Rebel Armed Forces of Guatemala (FAR)	Guatemala	1970–1989	Yes
Red Army Faction (RAF)	West Germany	1977–1993	Yes

Red Army for the Liberation of Catalonia	Spain	1987	Yes
Red Brigades	Italy	1974–1982	Yes
Red Brigades Fighting Communist Party (BR-PCC) and Fighting Communist Union (BR-UCC)	Italy	1983–2003	Yes
Revolutionary Armed Forces of Colombia (FARC)	Colombia	1975–2004	Yes
Revolutionary People's Struggle (ELA)	Greece	1976–1995	Yes
Shining Path (SL)	Peru	1978–2004	Yes
Taliban	Afghanistan	2001–2004	Yes
Tupac Amaru Revolutionary Movement (MRTA)	Peru	1984–1997	Yes
Tupamaros	Uruguay	1970–1971	Yes
Turkish People's Liberation Army	Turkey	1970–1980	Yes

Notes. We used 1982 as the last year of the Red Brigades based on Caselli and della Porta's analysis (1991). Any attacks claimed by the Red Brigades after 1982 were attributed to the splinter groups, BR-PCC, and BR-UCC. Similarly, it is generally agreed that the Black September Organization was no longer active after 1974 (Jones and Libicki, 2008). Based on case-specific information, we attributed attacks claimed by the Black September Organization after 1974 to the Abu Nidal Organization.

To gauge the years of activity of the groups in Table 1, we examined the span of years between their earliest and most recent attacks recorded in the GTD. Table 1 shows considerable variation across the groups in terms of number of years of operation measured in this way.¹¹ Only two groups had continuous attacks from 1970 to 2004: the New People's Army of the Philippines and the PFLP. Three additional groups had continued attacks for 30 years—the National Liberation Army (ELN) of Colombia, the Mujahideen-I-Khalq of Iran, and the Revolutionary Armed Forces (FARC) of Colombia. We next used the GTD to address a series of policy-driven questions about the attack patterns of these anti-U.S. groups against both U.S. and non-U.S. targets from 1970 to 2004.

Has the Number of Anti-U.S. Attacks and Fatalities Increased Over Time?

It seems that no comprehensive analyses of long-term trends in terrorist attacks have been published that include domestic incidents. Figure 1 shows total attacks and total fatal attacks against U.S. targets attributed to the groups that are the subject of this study. Total attacks were of course far more common than fatal attacks: Fatal attacks ($n = 111$) represent 19.5% of all attacks shown. Total attacks against the United States by these groups were considerably higher in the 1970s and 1980s and declined in the 1990s—a likely consequence of the decline of Marxist-Leninist-oriented terrorist groups after the collapse of the Soviet Union and developments in the Middle East after the first Gulf War. After reaching a high point of 38 attacks in 1974, total attacks against the United States declined to a low of 5 attacks in 1980. They then increased steeply before reaching the series high point of 41 attacks in 1990 and then again

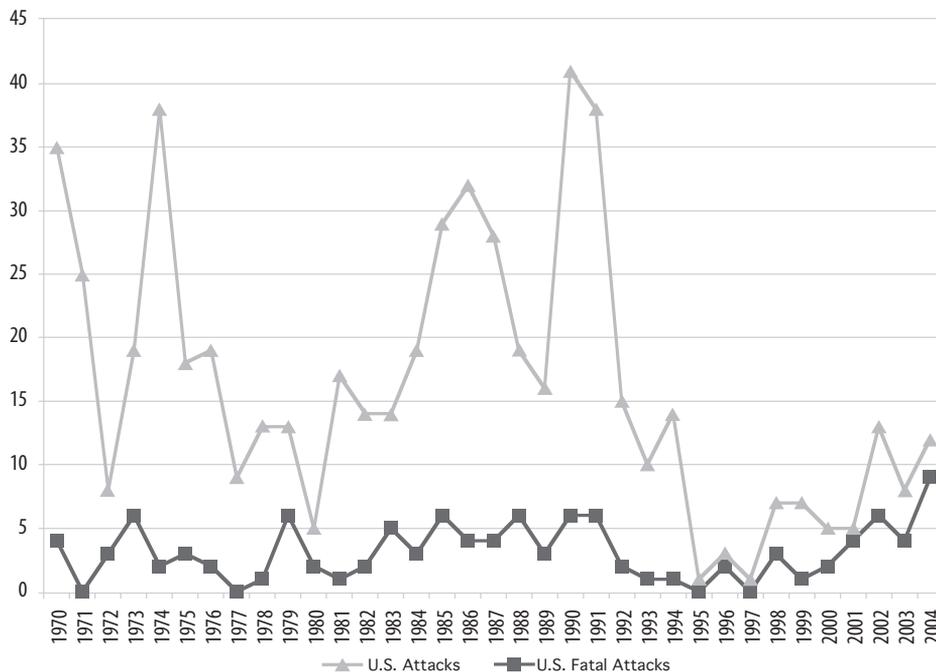
11. Because we analyzed the actual attacks of these groups, it is possible that some groups whose last known attack was before 2004 might nevertheless be implicated in later attacks. However, Table 1 shows that the last known attacks of only two groups (Jaish-e-Mohammad and the PFLP-General Command [PFLP-GC]) happened during the last 3 years of the data set—the last known attack of both of these groups was 2003.

declined steeply. From 1998 to the end of the series, attacks on U.S. targets increased somewhat but remained far below the totals found for much of the 1970s and 1980s.¹²

As with total attacks, total fatal attacks against the United States during this period were relatively high in the 1970s and 1980s and then declined throughout the 1990s. However, the major difference in the two trend lines is that fatal attacks against the United States increased

FIGURE 1

Total and fatal attacks against U.S. targets of 53 anti-U.S. terrorist groups, 1970–2004



strongly in the late 1990s and reached their highest level (i.e., 9 attacks) in the last year of the series. Apart from the peak in 2004, 6 fatal attacks against the United States occurred in the following 7 years in the series (1973, 1979, 1985, 1988, 1990, 1991, and 2002).

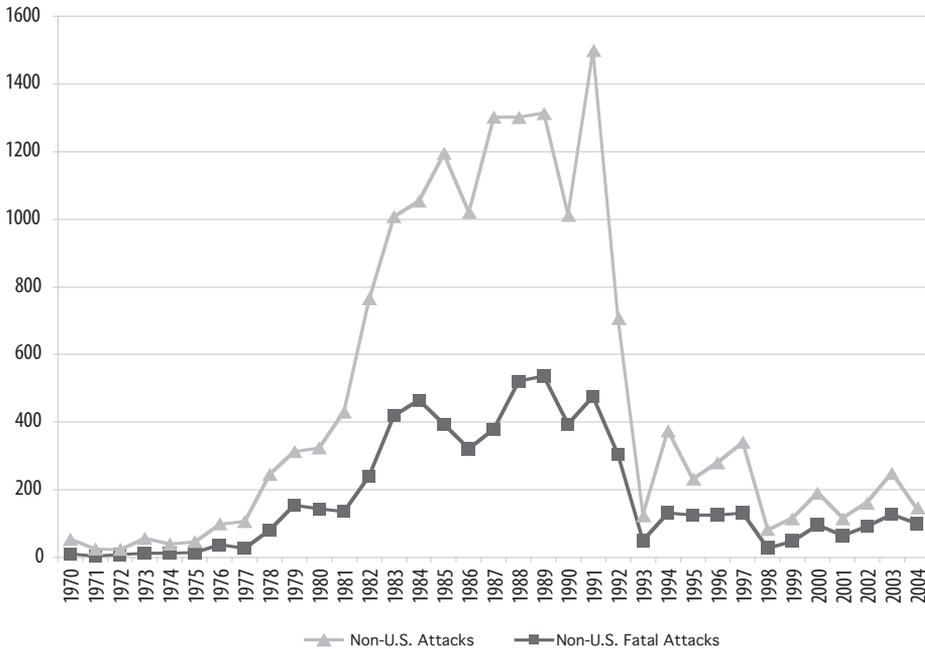
In response to the question that motivated this section, total terrorist attacks against the United States from these groups actually declined since 1990. In fact, they were at a 35-year low just before the 9/11 attacks. The 2 years in the series with the fewest anti-U.S. attacks were

12. We should reiterate here that we had to re-collect 1993 data for this project because it was missing from the original PGIS database. If we accept the assumption that open-source information erodes over time, the likely effect of delayed data collection is the identification of fewer true cases. In fact, Figure 1 does show a decline in total attacks from 1992 to 1993—although it is far less than the decline from 1991 to 1992 and the decline from 1994 to 1995. Nevertheless, it is important to remember this missing data issue in interpreting this article's findings.

1995 and 1997. Similarly, fatal attacks were generally more common in the 1970s and 1980s and reached a series low in the decade before 9/11. However, fatal attacks directed at the United States increased since the end of the 1990s. Although low in absolute terms, they reached their peak during 2004, which is the last year included in the analysis. But as we shall observe below, most of these fatal attacks involved U.S. citizen targets in other countries.

FIGURE 2

Total and fatal attacks against non-U.S. targets for 53 anti-U.S. terrorist groups, 1970–2004



Have the Number of Non-U.S. Attacks by Designated Anti-U.S. Groups Increased Over Time?

In Figure 2, we present the same analysis for total and fatal attacks on non-U.S. targets by the same groups. The most obvious difference between Figures 1 and 2 is the magnitude of the scales. In all, 41 attacks on the United States occurred in the peak year of 1990. By contrast, 1,499 attacks occurred on non-U.S. targets during the peak year of 1991. Similarly, only 9 fatal attacks were launched against the United States in the peak year of 2004 compared with a total of 536 fatal attacks against non-U.S. targets in the peak year of 1989. Thus, groups perceived to be dangerous to the United States are in fact much more so to other governments.

Non-U.S. trends for total and fatal attacks look like a classic boom-and-bust cycle with long and fairly steady increases that reached a peak in 1991 for total attacks and in 1989 for fatal attacks, and then trailed off significantly until the end of the series. As the U.S. trends also indicate, both total non-U.S. attacks and fatal attacks increased in the late 1990s, but this increase was much less pronounced for the non-U.S. attacks than it was for the U.S. attacks.

The clear answer to the question animating this section is that total attacks and total fatal attacks against non-U.S. targets reached a peak in the early 1990s and, since then, have remained far less. The total attacks increased slightly in the last few years spanned by the data, but the total number of attacks in 2004 was still lower than it was from 1994 to 1997. Despite the obvious difference in magnitude of U.S. and non-U.S. attacks, the trend lines are correlated ($r = .45, p < .01$ for the full series; the correlation increases to $r = .78, p < .0001$ if we limit the analysis to the years 1980–2004).

To What Extent Do Purportedly Anti-U.S. Groups Strike Non-U.S. Targets?

Because no previous database could compare domestic and transnational terrorist attacks over several decades, we were especially interested in the proportion of attacks by these purportedly anti-U.S. groups that were actually directed against U.S. targets. Table 2 compares total attacks and total fatalities against U.S. and against non-U.S. targets. From 1970 to 2004, only 3.4% of all attacks of these nominally anti-U.S. groups were directed against the United States. Moreover, recall that we were including not only attacks by nonindigenous actors based outside the country, but also attacks on U.S. targets located in other countries. According to Table 2, of the 570 total anti-U.S. attacks, only 5 attacks (less than 1%) occurred on U.S. soil. These events included 1 attack by the FMLN on August 18, 1983, against the Washington, DC Navy Yard (i.e., Navy Regional Data Automation Center) with small explosives as well as the 4 attacks that occurred on September 11, 2001, by al Qaeda.¹³ Major targets of anti-U.S. attacks in other countries included U.S. businesses ($n = 233$), U.S. diplomats and embassies ($n = 106$), and the U.S. military ($n = 96$).¹⁴ The rest of the attacks were widely scattered in terms of target selection and included U.S. educational institutions, journalists, nongovernmental organizations, and tourists.

13. The 1993 World Trade Center bombing was not included in the analysis because the perpetrators of the event were not affiliated with any of the 53 terrorist groups identified by this study at the time when the attack occurred.

14. The GTD excludes attacks related to open combat between opposing armed forces, both regular and irregular. However, the GTD includes attacks against the military if the military is serving as an internationally recognized peacekeeping force, if the attack is against military forces on leave away from their area of operation (as in the attack on the U.S.S. Cole), or if the attacks are against military forces who are in their place of residence (LaFree and Dugan, 2007).

TABLE 2

Total number of attacks and fatalities for U.S. and non-U.S. targets, 1970–2004

Attack Type	Number of Attacks (percentage)	Fatalities (percentage)
<i>U.S. Attacks</i>		
U.S. homeland	5 (0.03%)	3,007 (7.15%)
Non-U.S. homeland	565 (3.34%)	936 (2.23%)
Subtotal	570 (3.37%)	3,943 (9.38%)
<i>Non-U.S. Attacks</i>		
Transnational	1,121 (6.63%)	2,791 (76.64%)
Target and group country the same	42 (0.25%)	48 (0.11%)
Target and group country different	1,090 (6.44%)	2,743 (6.52%)
Domestic	15,225 (90.00%)	35,322 (84.00%)
Subtotal	16,346 (96.63%)	38,113 (90.62%)
<i>Total</i>	16,916 (100%)	42,056 (100%)

Table 2 shows that the proportion of terrorist fatalities suffered by the United States was almost three times as high as the proportion of total attacks against the United States—although the total proportion of fatalities was still only 9.4%. Moreover, a large proportion of these anti-U.S. fatalities ($n = 3,007$ or 76.3%) were accounted for by a single event: the 9/11 attacks.¹⁵ Other especially lethal anti-U.S. attacks by the groups analyzed here included the bombing of the U.S. embassy in Nairobi, Kenya, on August 7, 1998, which killed 224 and injured an estimated 4,000 people; the bombing of the U.S. marine barracks in Beirut, Lebanon, on October 23, 1983, which killed 239 U.S. citizens; and the attack on a Trans World Airlines Boeing 707 aircraft by the PFLP-GC in 1974 that resulted in 88 deaths.

In short, to a remarkable extent, these data indicate that, during a 35-year period, attacks by foreign groups identified as dangerous to the United States especially were not aimed at the U.S. homeland or even at U.S. targets in other countries but at non-U.S. targets. Attacks by these groups on the United States were exceptional.

To What Extent Do Designated Anti-U.S. Groups Strike Transnational Targets?

The bottom part of Table 2 divides the non-U.S. attacks into transnational and domestic categories. As mentioned, any attacks by al Qaeda were classified as transnational here. For all other groups, a transnational attack was one that occurred outside the boundaries of the countries of origin or against targets of a different nationality within the group's home country. Based on this

15. Interestingly, disagreement still exists about how many fatalities actually resulted from the 9/11 attacks on the Twin Towers. Three main sources of this disagreement are as follows. First, all estimates for fatalities are from both towers because it has proven impossible to separate fatalities for the two towers. Second, because of the long-term health-related effects of the attack, it is unclear how many post-9/11 deaths can be attributed to the original attack. And finally, a fluctuating number of individuals connected to the attacks are still missing and cannot be absolutely confirmed as fatalities of the attack. The estimate used here errs on the side of assuming that those still listed as missing were in fact fatalities.

classification, 90% of attacks and 84% of fatalities in the database were classified as domestic attacks. Of the transnational attacks, 4.9% were committed by al Qaeda and another 34.6% by the five groups that had either two or three countries of origin.

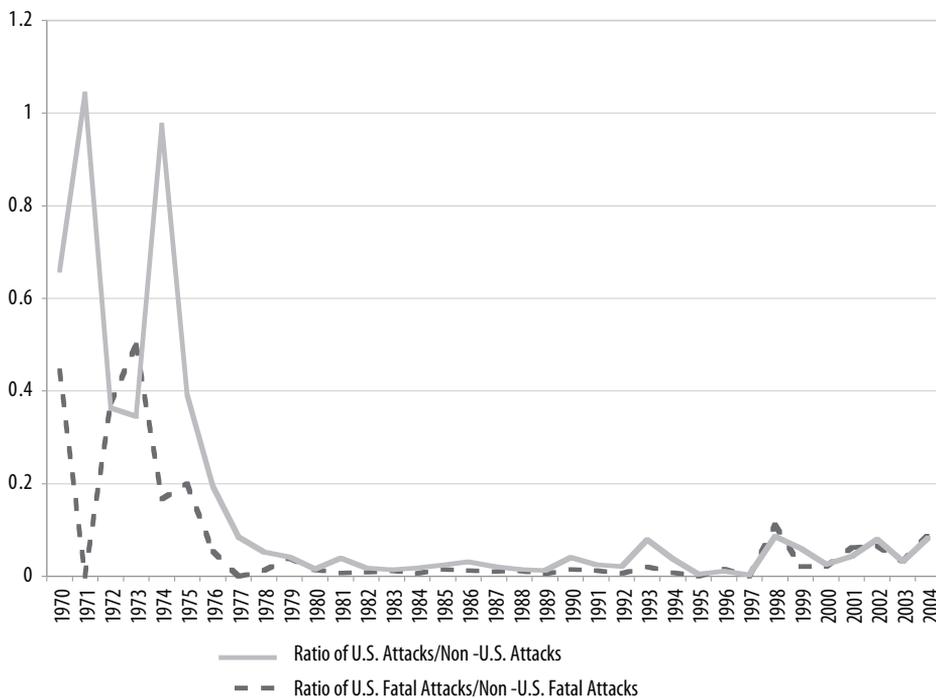
We should also point out that the classification of transnational terrorism in Table 2 counted as transnational attacks those occurring outside the group's home even if the targets were from the same country as the terrorist group. For example, if a Pakistani citizen attacked the Pakistani embassy in Germany, it is counted here as a transnational attack. Just 3.7% of the transnational attacks in Table 2 involved attacks by nationals from one country against targets connected to their home country that were located abroad. In short, most non-U.S. attacks by the anti-U.S. terrorist groups in question were against domestic targets at home. This finding underscores the fact that most terrorism—like most crime—is a local matter.

Is The Ratio of U.S. to Non-U.S. Attacks and Fatalities Changing Over Time?

We next explored the extent to which anti-U.S. groups changed their selection of targets over time. In Figure 3, we plotted the ratio of U.S. and non-U.S. attacks and fatal attacks from 1970 to 2004. In general, the ratios of attacks and fatal attacks against the U.S. to non-U.S. attacks by these terrorist groups were much higher in the 1970s than in subsequent decades, which

FIGURE 3

Ratio of U.S. and non-U.S. total and fatal attacks, 1970–2004



might explain why many of them were originally considered as “anti-U.S.” groups. In fact, for one year in the analysis (i.e., 1971), the absolute number of attacks against the United States actually exceeded the number of non-U.S. attacks. The top three groups attacking the United States and U.S. targets abroad from 1970 to 1979, ranked by number of attacks, were the Shining Path of Peru (43 attacks), the Montoneros of Argentina (38 attacks), and the Turkish People’s Liberation Army (37 attacks).

Although the ratio of U.S. to non-U.S. attacks never exceeded 20% after the 1970s, small peaks occurred in 1993 (7.9%),¹⁶ 1998 (8.6%), and 2004 (8.3%). The ratio of U.S. to non-U.S. fatal attacks generally followed a similar pattern, with a far higher percentage of U.S. fatal attacks occurring in the early 1970s than in subsequent decades. A much lower peak occurred in 1998 when the ratio of U.S. to non-U.S. fatal attacks was just over 11%. In sum, the ratio of U.S. to non-U.S. attacks and fatal attacks changed over time and in a way that some might find surprising. In general, the designated anti-U.S. groups attacked a much higher proportion of U.S. targets in the 1970s than in subsequent decades.

Do U.S. Attacks by Anti-U.S. Groups Fit into Clear Trajectories Over Time?

Rapoport (1992: 1064) argued that, since the late 19th century, terrorist attacks can be divided into four “political turning points,” or waves (cf. Sedgwick, 2007). In a recent update of this work, Rapoport (2004: 47) defined a terrorist wave as “a cycle of activity in a given time period—a cycle characterized by expansion and contraction phases.” Following Rapoport, we asked whether the attacks of these 53 terrorist groups since 1970 could also be divided into distinct temporal patterns. For this part of the analysis, we relied on a statistical methodology called group-based trajectory analysis (GBTA), which is described in the next section.

Group-based trajectory analysis. We used GBTA to distinguish the attack patterns of the groups included in the analysis. GBTA was originally designed to illustrate the developmental patterns of individual criminal offending (Nagin, 1999, 2005; Nagin and Land, 1993). Recently, GBTA has been applied to the study of crime distribution across geographic locations (Weisburd, Bushway, Lum, and Yang, 2004) and trends in terrorist activities and crime across countries and groups (Dugan, LaFree, and Miller, 2007; LaFree, Morris, and Dugan, in press; Piquero and Piquero, 2006). The primary assumption of GBTA is that trends in offending rates over time can be approximated with a set number of trajectories characterized by polynomial growth curves (Nagin and Tremblay, 1999; Nagin, Pagani, Tremblay, and Vitaro, 2003). Specifically, GBTA is designed to identify latent groups of cases with similar developmental paths (Bushway, Piquero, Broidy, Cauffman, and Mazerolle, 2001; Nagin, 2005; Weisburd et al., 2004). Thus, the results from GBTA illustrate the latent growth curves of a set number of trajectories.

The correct number of trajectories in a specific analysis is determined by prior theories, empirical criteria (e.g., the Bayesian Information Criteria [BIC]), and posterior probabilities.

16. Again, we should regard the results for 1993 with caution, given the missing data problems described previously. But interestingly, despite our concern about undercounting terrorist attacks for 1993, in this case it still emerged as a peak year for attacks.

While modeling the developmental pathways, GBTA allows individual cases to follow different trajectories based on the values of observations (Bushway et al., 2001). The fact that GBTA can capture developmental changes in a dynamic, longitudinal framework makes it attractive for examining long-term trends. GBTA can also be used to estimate the proportion (i.e., posterior probability) of a given population that follows a particular trajectory. These posterior probabilities provide an assessment of the extent to which the models correctly classify individual cases into group trajectories.

The following equation represents a basic version of GBTA that is a polynomial function modeling dependent measures over time (Nagin et al., 2003):

$$y_{it}^j = \beta_0^j + \beta_1^j \text{time}_u + \beta_2^j \text{time}_u^2 + \varepsilon$$

where y_{it}^j is the level of the dependent variable for individual i at time t given the membership in group j , and the shape of each group is determined by the parameters β_0^j , β_1^j , and β_2^j .

Trajectory results can be evaluated using BIC to determine the optimal number of trajectories in an analysis: $\text{BIC} = \log(L) - 0.5 * \log(n) * (k)$, where L is the value of the model's maximized likelihood estimates, n is the sample size, and k is the number of parameters estimated in a given model. Because more complex models will generally improve the fit of a given analysis, BIC encourages a parsimonious solution by penalizing models that increase the number of trajectories unless they substantially improve model fit. In addition to BIC, trajectory analysis requires that researchers also consider posterior probabilities of trajectory assignments, odds of correct classification, estimated group probabilities, and whether meaningful groups are revealed (Nagin, 2005).

Trajectory results. We conducted separate GBTA on U.S.-related and non-U.S.-related attacks for the 53 anti-U.S. terrorist groups included in our study. Figure 4 shows the best-fitting GBTA model for attacks on the United States.¹⁷ The model resulted in four separate trajectories with distinct pathways. Perhaps the most striking feature of Figure 4 is that three trajectories form separate and sequential "waves." Trajectory 1, which is referred to here as the "1970s boom," included about 22.4% of the terrorist groups in the analysis, reached a peak in 1974, and almost entirely disappeared by 1980. Trajectory 2, which we call the "1980s boom," included 29.3% of the terrorist organizations in the analysis, began to increase rapidly in the early 1980s, reached a peak in 1990, and largely disappeared by 1995. And finally, Trajectory 3, which is referred to as the "21st-century boom," included only about 4.3% of the terrorist organizations in our analysis, began to accelerate rapidly in the late 1990s, and was still in-

17. The minimum average within-group posterior probability in the model is .96, and the lowest value of the odds of correction classification (OCC) is 26.58. Nagin (2005) suggested that when average posterior probability is higher than .7 and OCC values are higher than 5, the group assignment represents a high level of accuracy. Judging by these standards, the four-group model performed satisfactorily in classifying the anti-U.S. groups into separate trajectories.

creasing rapidly at the end of the analysis period in 2004. We refer to the fourth trajectory in Figure 4 as “sporadic” because all of the groups included in this trajectory practiced sporadic and infrequent attacks against the United States.

In Table 3, we present the characteristics of these four trajectories. Despite the sporadic trajectory including nearly half of the terrorist organizations in the analysis (44%), it accounted for less than 10% of all U.S. attacks. However, when the groups in the sporadic trajectory did attack, 47.9% of their attacks included at least one fatality—which is higher than any other trajectory group except for the 21st-century boom.

FIGURE 4

Total and fatal attacks against U.S. targets of 53 anti-U.S. terrorist groups, 1970–2004

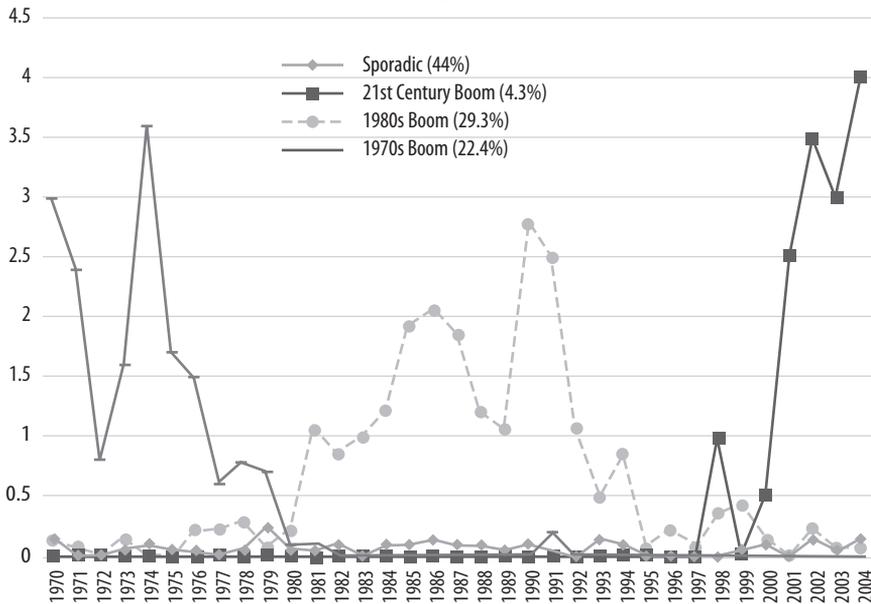


TABLE 3

Characteristics of anti-U.S. terrorist trajectories

Trajectory Group	Attacks (%)	Fatalities (%)	Attacks with Fatalities (%)	Fatal Attacks (%)
Sporadic (44%)	48 (8.4%)	158 (4.0%)	23 (20.7%)	47.92%
1970s boom (22.4%)	171 (30%)	59 (1.5%)	22 (19.8%)	12.87%
1980s boom (29.3%)	322 (56.5%)	410 (10.4%)	48 (43.2%)	14.91%
21 st -century boom (4.3%)	29 (5.1%)	3,316 (84.1%)	18 (16.2%)	62.07%
Total	570 (100%)	3,943 (100%)	111 (100%)	

Together, the 1970s and 1980s boom trajectories accounted for about half of all terrorist groups in the U.S. analysis, but nearly 87% of all anti-U.S. attacks in the analysis. Despite this, these attack patterns were far less likely to include fatalities or fatal attacks than either the sporadic or the 21st-century boom trajectories. Only about 13% to 15% of attacks by the groups summarized in the 1970s and 1980s boom trajectories resulted in fatalities. By contrast, 62.1% of attacks in the 21st-century boom trajectory and 47.9% of the attacks in the sporadic trajectory included at least one fatality.

In Table 4, we list the terrorist groups that comprise each of the four anti-U.S. trajectories. The 21st-century boom trajectory was composed of only two groups: al Qaeda and the Taliban. It is worth recalling that our analysis ends in 2004—before al Qaeda in Mesopotamia and its successors in Iraq staged any attacks against U.S. targets.

TABLE 4

Terrorist groups by trajectory assignments (U.S. targets)

Trajectory Group	Group	
Sporadic group ($n = 21$)	Abu Nidal Organization (ANO)	
	Abu Sayyaf Group (ASG)	
	al-Gama'at al-Islamiyya (IG)	
	al Qaeda in the Arabian Peninsula (AQAP)	
	Central American Revolutionary Workers Party (PRTC)	
	Islamic Movement of Uzbekistan (IMU)	
	Jaish-e-Mohammad	
	Japanese Red Army (JRA)	
	Jemaah Islamiya (JI)	
	Lebanese Armed Revolutionary Faction (LARF)	
	Lebanese Socialist Revolutionary Organization	
	Marxist-Leninist Armed Propaganda Unit	
	Moro Islamic Liberation Front (MILF)	
	Moro National Liberation Front (MNLF)	
	Nestor Paz Zamora Commission (CNPZ)	
	Popular Front for the Liberation of Palestine, Gen Cmd (PFLP-GC)	
	Popular Liberation Army (EPL)	
	Popular Revolutionary Vanguard (VPR)	
	Rebel Armed Forces of Guatemala (FAR)	
	Red Army for the Liberation of Catalonia	
	Red Brigades Fighting Communist Party (BR-PCC) and Red Brigades Fighting Communist Union (BR-UCC)	
	1970s boom ($n = 10$)	Black September Organization
		Ejercito Revolucionaria del Pueblo (ERP)
		Eritrean Liberation Front
Montoneros		
Mujahideen-I-Khalq (MK)		
People's Liberation Forces (FPL)		
Popular Front for the Liberation of Palestine (PFLP)		
Red Brigades		
Tupamaros		

1980s boom ($n = 14$)	Turkish People's Liberation Army Dev Sol Farabundo Marti National Liberation Front (FMLN) Hizballah M-19 (Movement of April 19) Manuel Rodriguez Patriotic Front (FPMR) National Liberation Army of Colombia (ELN) New People's Army (NPA) November 17 Revolutionary Organization (N17RO) Patriotic Morazanista Front (FPM) Red Army Faction (RAF) Revolutionary Armed Forces of Colombia (FARC) Revolutionary People's Struggle (ELA) Shining Path (SL) Tupac Amaru Revolutionary Movement (MRTA)
21 st -century boom ($n = 2$)	al Qaeda Taliban

Notes. al Faran/Harkat-ul Mujahidin (HuM), al Qaeda in Mesopotamia, Ansar al-Islam, Lashkar I Jhangvi, Palestine Liberation Front (PLF), and Lashkar-e Taiba had no U.S. attacks during the study period. Thus, only 47 groups were included in the U.S. analysis.

Do Non-U.S. Attacks by Anti-U.S. Groups Fit into Clear Trajectories Over Time?

We next performed the same analysis for attacks against non-U.S. targets (both domestic and transnational). The trajectory results are shown in Figure 5. As with the U.S. analysis, we found the most robust results for a four-trajectory solution. Similarly, we found that about half of the groups fit into a sporadic, low-frequency trajectory. Likewise, we found some evidence for a 1970s onset group and, to a lesser extent, some evidence of a 21st-century boom trajectory. Compared with the 1970s boom for the United States, the 1970s onset trajectory for the non-U.S. attacks included about as many terrorist groups. By contrast, compared with the 21st-century boom trajectory for the United States, the 21st-century boom trajectory for the non-U.S. attacks included about three times more terrorist groups.

The most striking difference between U.S. and non-U.S. attacks was the huge importance of the 1980s boom trajectory for the latter. Although it included only 11 terrorist groups in the analysis, from the late 1970s until the early 1990s, it was responsible for most terrorist attacks by these groups against non-U.S. targets. Thus, whereas the 1970s onset trajectory reached a smaller peak in 1978 and a higher peak in 1991, it was totally overshadowed by the rise of the 1980s boom trajectory. Similarly, whereas the 21st-century boom trajectory showed some increases after the mid-1990s, these increases were dwarfed by the 1980s boom trajectory.

In Table 5, we present the characteristics of the non-U.S. attack trajectories. Based on the preceding discussion, it is unsurprising that the most striking feature of Table 5 is the dominance of the 1980s boom trajectory. Although this group included 20% of the total terrorist groups in the analysis, it accounted for 85.2% of total non-U.S. attacks and 84.3% of non-U.S. fatalities. This pattern is in strong contrast to that exhibited by the sporadic trajectory, which accounted for 47% of the total groups but less than 3% of total attacks and fatalities.

FIGURE 5

Trajectories of non-U.S. attacks by 53 anti-U.S. terrorist groups, 1970–2004

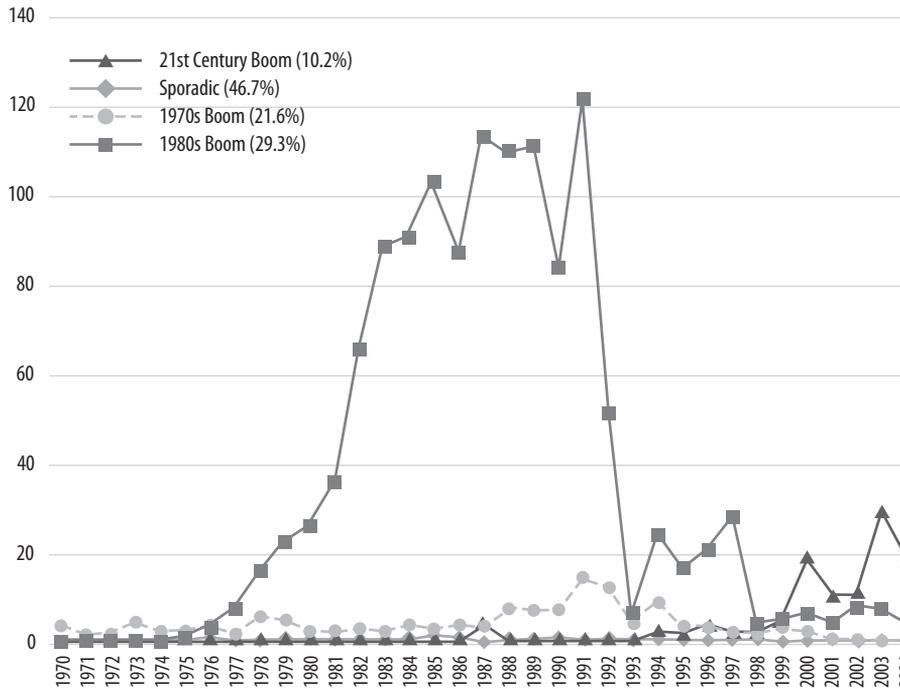


TABLE 5

Characteristics of attacks against non-U.S. targets

Trajectory Group	Attacks (%)	Fatalities (%)	Attacks with Fatalities (%)	Fatal Attacks (%)
Sporadic (46.7%)	409 (2.5%)	1,055 (2.8%)	187 (3.0%)	45.72%
1970s onset (21.6%)	1,475 (9.0%)	2,485 (6.5%)	530 (8.4%)	35.93%
1980s boom (21.6%)	13,926 (85.2%)	32,133 (84.3%)	5,310 (83.8%)	38.13%
21 st -century boom (10.2%)	536 (3.3%)	2,440 (6.4%)	309 (4.9%)	57.65%
Total	16,346	38,113	6,336	

In Table 6, we list all the individual groups for each of the four non-U.S. attack trajectories. What we observe in this preliminary analysis is a heterogeneous picture. No clear ideological or regional differentiations are present across the board, which might indicate that patterns of group behavior cannot be predicted by ideology. It is also interesting to note that the 1980s seem to be more dangerous for non-U.S. targets of terrorism than for U.S. targets, despite the prominence of anti-U.S. terrorism in Lebanon.

TABLE 6

Terrorist groups by trajectory assignments (non-U.S. targets)

Trajectory Group	Group	
Sporadic (<i>n</i> = 24)	Abu Nidal Organization (ANO)	
	al Faran/Harkat-ul Mujahidin (HuM)	
	al Qaeda in the Arabian Peninsula (AQAP)	
	al Qaeda in Mesopotamia	
	Ansar al-Islam	
	Eritrean Liberation Front	
	Islamic Movement of Uzbekistan (IMU)	
	Jaish-e-Mohammad	
	Japanese Red Army (JRA)	
	Jemaah Islamiya (JI)	
	Lashkar I Jhangvi	
	Lebanese Armed Revolutionary Faction (LARF)	
	Lebanese Socialist Revolutionary Organization	
	Marxist-Leninist Armed Propaganda Unit	
	Nestor Paz Zamora Commission (CNPZ)	
	Palestine Liberation Front (PLF)	
	Patriotic Morazanista Front (FPM)	
	Popular Front for the Liberation of Palestine (PFLP)	
	Popular Front for the Liberation of Palestine, Gen Cmd (PFLP-GC)	
	Popular Revolutionary Vanguard (VPR)	
	Rebel Armed Forces of Guatemala (FAR)	
	Red Army Faction (RAF)	
	Red Brigades Fighting Communist Party (BR-PCC) and Fighting Communist Union (BR-UCC)	
	Turkish People's Liberation Army	
	1970s onset (<i>n</i> = 11)	Black September Organization
		Dev Sol
		Ejercito Revolucionaria del Pueblo (ERP)
		Hizballah
		Montoneros
		Moro National Liberation Front (MNLF)
		Mujahideen-I-Khalq (MK)
		November 17 Revolutionary Organization (N17RO)
		Popular Liberation Army (EPL)
Revolutionary People's Struggle (ELA)		
Tupamaros (Uruguay)		
1980s boom (<i>n</i> = 11)	al-Gama'at al-Islamiyya (IG)	
	Farabundo Marti National Liberation Front (FMLN)	
	M-19 (Movement of April 19)	
	Manuel Rodriguez Patriotic Front (FPMR)	
	National Liberation Army of Colombia (ELN)	
	New People's Army (NPA)	
	People's Liberation Forces (FPL)	
	Red Brigades	
	Revolutionary Armed Forces of Colombia (FARC)	
	Shining Path (SL)	

21 st -century boom (<i>n</i> = 5)	Tupac Amaru Revolutionary Movement (MRTA)
	Abu Sayyaf Group (ASG)
	al Qaeda
	Lashkar-e Taiba
	Moro Islamic Liberation Front (MILF)
	Taliban

Notes. The Central American Revolutionary Workers Party (PRTC) and Red Army for the Liberation of Catalonia had no non-U.S. attacks during the study period. Thus, only 51 groups were included in the non-U.S. analysis.

How Closely Related Are the U.S. and Non-U.S. Attack Trajectories?

Because the trajectory analysis for both the U.S. and non-U.S. attacks yielded four trajectories and these trajectories to some extent resembled each other, we were able to examine the extent to which the groups included in the four trajectories for both analyses were the same. In Table 7, we compared the classification of the terrorist groups into one of the four trajectories for the U.S. and non-U.S. analysis. According to Table 7, both groups in the U.S. 21st-century boom trajectory were also in the non-U.S. 21st-century boom trajectory. But in addition, the non-U.S. 21st-century boom trajectory included the Abu Sayyaf Group, Lashkar-e Taiba, and the Moro Islamic Liberation Front.

T A B L E 7

A comparison of U.S. and non-U.S. terrorist group trajectories

Non-U.S. Trajectory	U.S. Trajectory				Total
	Sporadic Group	1970s Boom	1980s Boom	21 st -Century Boom	
Sporadic group	13 (72.2%)	3 (30%)	2 (14.3%)	0 (0%)	18
1970s boom	2 (11.1%)	5 (50%)	4 (28.6%)	0 (0%)	11
1980s boom	1 (5.6%)	2 (20%)	8 (57.1%)	0 (0%)	11
21 st -century boom	2 (11.1%)	0 (0%)	0 (0%)	2 (100%)	4
Total	18 (100%)	10 (100%)	14 (100%)	2 (100%)	44 (100%)

Notes. Only 44 of the 53 terrorist groups attacked both U.S. and non-U.S. targets from 1970–2004.

Next, 72.2% of the groups in the U.S. sporadic trajectory were also in the non-U.S. sporadic trajectory. The five groups that were sporadic for U.S. attacks but not for non-U.S. attacks were the Abu Sayyaf Group, the Moro Islamic Liberation Front, the Moro National Liberation Front in the Philippines, al-Gama'at al-Islamiyya in Egypt, and the Central American Revolutionary Workers Party in El Salvador. Again, thus far at least, these five groups were much more active in directing attacks against non-U.S. than U.S. targets.

More than half of the groups in the U.S. 1980s boom trajectory were also in the non-U.S. 1980s boom trajectory. Interestingly, all but one of these groups (i.e., the New People's Army in the Philippines [NPA]) were Latin-American revolutionary organizations: FMLN in El Salvador;

Manuel Rodriguez Patriotic Front in Chile; Shining Path of Peru; ELN, M-19, Tupac Amaru Revolutionary Movement (MRTA) in Peru; and FARC in Colombia. And although not Latin American, the NPA was a leftist group.

The six U.S. groups that were not in the non-U.S. 1980s boom trajectory were Dev Sol, Hizballah, the November 17 Revolutionary Organization, the Red Army Faction, the Patriotic Morazanista Front, and the Revolutionary People's Struggle Group. Two of these (the Red Army Faction and Patriotic Morazanista Front) were in the sporadic non-U.S. trajectory; the rest were in the 1970s onset non-U.S. trajectory (Dev Sol, Hizballah, the Revolutionary People's Struggle Group, and the November 17 Revolutionary Organization).

The trajectory that included the smallest percentage of group overlap for the U.S. and non-U.S. attacks was the 1970s trajectory—only 50% of the 10 groups in this U.S. trajectory were also in the non-U.S. 1970s onset trajectory. As with the 1980s trajectory, three were Latin-American revolutionary groups: two Argentine organizations (Montoneros and ERP) and the Tupamaros of Uruguay. For the non-U.S. trajectories, the other five groups from the U.S. 1970s onset trajectory were instead in the sporadic trajectory (the Eritrean Liberation Front, the PFLP, and the Turkish People's Liberation Army) and the 1980s boom trajectory (the People's Liberation Forces and the Red Brigades).

In the 1970s, most of the groups that posed a more consistent threat to the United States than to other countries had Middle-East or African origins: two Palestinian groups (Black September and PFLP), the Iranian Mujahideen-I-Khalq, the Eritrean National Liberation Front, and the Turkish People's Liberation Army. Added to these were the People's Liberation Forces in El Salvador and the Red Brigades in Italy. The groups in the 1970s onset trajectory for non-U.S., but not the 1970s U.S. boom trajectory, included another Turkish group, Dev Sol, the Hizballah in Lebanon, the November 17 group in Greece, the Moro National Liberation Front in the Philippines, the Revolutionary People's Struggle in Greece, and the Popular Liberation Army (EPL) of Colombia. Interestingly, by the 1980s, November 17, Hizballah, and Dev Sol switched trajectories from the non-U.S. to the U.S. boom; this finding probably indicates a strategic shift that remains to be explored.

Two other groups are also in the 1970s U.S. boom trajectory: the Red Army Faction in Germany and another Greek group called the Revolutionary People's Struggle. By the same token, two groups were in the American boom trajectory in the 1970s but moved to the non-U.S. boom in the 1980s: the Red Brigades of Italy and the People's Liberation Forces in El Salvador. Groups also in the 1980s boom for non-U.S. but not U.S. include the Egyptian Islamist group al-Gama'at al-Islamiyya, the Red Brigades in Italy, and the MRTA in Peru.

In short, the attack patterns of these groups against the U.S. and non-U.S. targets had considerable similarities over the 35 years spanned by the data. For both, we found four distinct trajectories—three sequential waves and a fourth trajectory made up of groups that attack sporadically or are short lived. For both the U.S. and non-U.S. attacks, the sporadic trajectory accounted for nearly half the groups in the analysis. However, a substantial difference exists

between the U.S. and the non-U.S. trajectories for the 1980s boom trajectory: Whereas the 1980s boom trajectory is responsible for more than 85% of all non-U.S. attacks, it accounts for slightly more than 56% of all U.S. attacks.

In general, the groups that comprised each of the four trajectories in the U.S. and non-U.S. attack trajectories were similar. Overall, 28 of the 44 groups (63.6%) classified in a particular trajectory for the United States were found in the comparable trajectory for non-U.S. targets. Based on the classifications for U.S. trajectories, the correspondence is perfect for the 21st-century boom groups, 72.2% for the sporadic trajectory, and 57.1% for the 1980s trajectory. The least group overlap occurred in the 1970s trajectory (50%). The groups that figured in both U.S. and non-U.S. trajectories included several Latin-American revolutionary organizations. The Moro National Liberation Front in the Philippines was in the 1970s onset trajectory for non-U.S. attacks but not for U.S. attacks. Groups in the 1970s boom trajectory for the U.S. but not for the non-U.S. targets were several Middle Eastern and African groups: Eritrean Liberation Front, FPL in El Salvador, Red Brigades in Italy, PFLP (Israel/Palestine, Syria), and Turkish People's Liberation Army. Although explaining the specific targeting strategies of these groups is beyond the scope of this article, we can suppose that regional politics played a role in the groups' targeting selections over time.

Discussion and Conclusions

Based on a newly available event database composed of domestic as well as transnational terrorist attacks, we examined the anti-U.S. and non-U.S. attack patterns by organizations identified by the U.S. Department of State and subsequently the NCTC as particularly dangerous for the United States. The results show that, between 1970 and 2004, more than 96% of more than 16,000 terrorist attacks were in fact directed at non-U.S. targets. Not only did groups considered to be threatening rarely attack the United States (and almost never on U.S. soil), but more than 90% of these groups' non-U.S. attacks were domestic. Most groups operated primarily at home against local targets. Additional analysis could ask whether these findings also hold for groups that have not generally attacked U.S. interests since 1970 (for example, the Irish Republican Army, Basque Fatherland and Liberty, or the Liberation Tigers of Tamil Eelam; for work on this topic, see Dugan, Miller, LaFree, and Cragin, 2008).

Despite non-U.S. attacks outnumbering U.S. attacks by nearly 30 to 1, the attack trajectories for U.S. and non-U.S. attacks show considerable similarity. In both cases, we found that four trajectories best explain the attack patterns from 1970 to 2004. We identified three "waves" of terrorist attacks with relatively sharp ascents and declines, and a fourth and largest trajectory of groups that struck for only a short period of time or infrequently. One interpretation of these results is that the activities of approximately half of the groups analyzed do not fit neatly into clear terrorism waves.

Our findings point to several critical policy implications. First, they underscore the importance of proximity to terrorist targeting. Even though the groups identified here might have

ample interest in striking the United States, actually doing so is not an easy task. Anti-U.S. objectives are not sufficient. As Clarke and Newman (2006: 139) put it, "Proximity to the target is the most important target characteristic to terrorists." Mounting an attack against the United States from primary bases outside the United States is extremely challenging. Clarke and Newman (2006: 154) concluded: "Terrorists are constrained by geography. Like criminals, they will choose targets that are close to their operational base."

Foreign attackers typically face an environment in which they have an imperfect understanding of local language, culture, and daily life. This impediment may explain why recent research (i.e., Smith et al., 2002) documented that international terrorist attacks against the United States have a much longer planning period than attacks by domestic groups. To overcome cultural and linguistic obstacles, foreign attackers will probably be more likely than domestic attackers to rely on immigrant Diaspora communities within the target country. Similar reasoning leads Clarke and Newman (2006: 143) to conclude that "externally based terrorists will mount their attacks from locations that are as close as possible to the target." In other words, foreign terrorist groups need locals. Thus, a recent report by the U.S. Department of State (2008) stressed the importance of local recruits to al Qaeda, especially in the West. More generally, the results underscore both the atypicality and the lethal ingenuity of the 9/11 attacks. Al Qaeda was able to engineer 9/11 without using locals but instead relied on specially trained and highly qualified foreign operatives. The ability to commandeer such assets undoubtedly is rare.

Second, compared with the percentage of total attacks on U.S. targets, the total percentage of fatalities suffered by U.S. targets is nearly twice as high. This finding suggests that, when foreign terrorists do succeed in striking outside their domestic base of operations, they aim to cause large numbers of casualties. As Clarke and Newman (2006) observed, in situations where terrorists have but one opportunity to carry out an attack, they will seek to cause as much damage as they possibly can. We could thus expect such attacks to be carefully planned over a long period of time. They will not be easily repeated.

Third, the attack trajectories of approximately half of the terrorist groups included in the analyses exhibit wave-like boom-and-bust cycles. This finding supports earlier research (e.g., Midlarsky, Crenshaw, and Yoshida, 1980; Rapoport, 2004; Sedgwick, 2007), suggesting that the decision to resort to terrorism is to some extent contagious. Once an upward trajectory begins, it tends to follow an accelerating path for several years. The cycle hypothesis also underscores the need to improve our understanding of the processes that end a cycle of terrorist group attacks (cf. Cronin, 2008; Jones and Libicki, 2008; LaFree and Miller, 2008). But it is also equally important to emphasize that nearly half of the groups we examined do not fit this pattern. They were responsible for infrequent or sporadic attacks.

Last, the fact that total attacks by this set of designated anti-U.S. organizations is so lopsidedly against non-U.S. targets is consistent with the proposition that the decision of anti-U.S. terrorist groups to attack the United States is often strategic. As Crenshaw (2001) suggested, the United States may become a preferred target if domestic challengers cannot succeed at home unless the scope of the conflict is expanded beyond local boundaries. Crenshaw pointed out

that the United States is a useful target for pragmatic as well as ideological reasons: Attacks on U.S. citizens are highly visible and both acts of terrorism and the U.S. response may well arouse popular emotions in an audience of importance to the terrorist organization. Beyond these considerations, attacks on U.S. targets can be useful for directly influencing U.S. policies—such as compelling the United States to withdraw from a military commitment that supports a local government. The bombing of the marine barracks in Lebanon in 1983 is a prominent example. Crenshaw also argued that terrorism directed at the United States may be a mechanism for drawing the United States into a local conflict, perhaps to pressure the government to make reforms or to undermine its legitimacy.

Regardless of the strategic intent behind attacks on the United States or the virulence of anti-U.S. ideology, our results show that most terrorist attacks by foreign groups deemed dangerous to national security by the U.S. government are in fact directed at non-U.S. targets. Local governments suffer the most. U.S. decision makers might be well advised to avoid parochialism and keep in mind that even the most seriously threatening groups direct most of their activities elsewhere. This conclusion suggests that international cooperation—not unilateral policies—might be the best counterterrorist strategy.

References

- Asal, Victor and R. Karl Rethemeyer. 2007. *Targeting and attacking America: Ideology and capability*. Unpublished manuscript, University of New York at Albany.
- Bushway, Shawn D., Alex R. Piquero, Lisa M. Broidy, Elizabeth Cauffman, and Paul Mazerolle. 2001. An empirical framework for studying desistance as a process. *Criminology*, 39: 491–516.
- Caselli, Gian Carlo and Donatella della Porta. 1991. The history of the Red Brigades: Organizational structures and strategies of action (1970–1982). In (Raimondo Catanzaro, ed.), *The Red Brigades and left-wing terrorism in Italy*. London, UK: Pinter Publishers.
- Clarke, Ronald V. and Graeme R. Newman. 2006. *Outsmarting the terrorists*. Westport, CT: Praeger.
- Crenshaw, Martha. 2001. Why America? The globalization of civil war. *Current History*, 100: 425–432.
- Crenshaw, Martha. 2006. *Why the United States is targeted by terrorism*. Presentation at the International Studies Association Annual Convention, San Diego, CA.
- Cronin, Audrey Kurth. 2008. *Ending terrorism: Lessons for defeating al Qaeda*. London, UK: Routledge.
- Dugan, Laura, Erin Miller, Gary LaFree, and Kim Cragin. 2008. *Group-based trajectories of frequency and severity of attacks by terrorist organizations, 1970 to 1997*. Paper presented at the American Society of Criminology Annual Meeting, St. Louis, MO.
- Dugan, Laura, Gary LaFree, and Erin Miller. 2007. *Trajectory analysis of terrorist groups*. Paper presented at the American Society of Criminology Annual Meeting, Atlanta, GA.

- Dugan, Laura, Gary LaFree, and Alex R. Piquero. 2005. Testing a rational choice model of airline hijackings. *Criminology*, 43: 1031–1066.
- Enders, Walter and Todd Sandler. 2006. *The political economy of terrorism*. New York: Cambridge University Press.
- Falkenrath, Richard. 2001. Analytic models and policy prescription: Understanding recent innovation in U.S. counterterrorism. *Journal of Conflict and Terrorism*, 24: 159–181.
- Federal Bureau of Investigation. 1997. *Report on terrorism in the United States*. Washington, DC: U.S. Government Printing Office.
- Greenbaum, Robert, Laura Dugan, and Gary LaFree. 2007. The impact of terrorism on Italian employment and business activity. *Urban Studies*, 44: 1093–1108.
- Hale, William. 2006. Information versus intelligence: Construction and analysis of an open source relational database of worldwide extremist activity. *International Journal of Emergency Management*, 3: 280–297.
- Hoge, James F., Jr. and Gideon Rose (eds.). 2001. *How did this happen? Terrorism and the new war*. New York: Public Affairs Press.
- Jones, Seth G. and Martin C. Libicki. 2008. *How terrorist groups end: Lessons for countering al Qaeda*. Santa Monica, CA: RAND Corporation.
- LaFree, Gary and Laura Dugan. 2007. Introducing the global terrorism database. *Terrorism and Political Violence*, 19: 181–204.
- LaFree, Gary and Laura Dugan. 2009. Tracking global terrorism trends, 1970–2004. In (David Weisburd, Thomas Feucht, Idit Hakimi, Lois Mock, and Simon Perry, eds.), *To protect and to serve: Policing in an age of terrorism*. New York: Springer.
- LaFree, Gary, Laura Dugan, and Kim Cragin. 2009. Trends in terrorism, 1970 to 2007. In (J. Joseph Hewitt, Jonathan Wilkenfeld, and Ted Robert Gurr, eds.), *Peace and conflict*. Boulder, CO: Paradigm Publishers.
- LaFree, Gary, Laura Dugan, and Raven Korte. 2009. The impact of British counter terrorist strategies on political violence in Northern Ireland: Comparing deterrence and backlash models. *Criminology*, 47: 17–46.
- LaFree, Gary and Erin Miller. 2008. Desistance from terrorism: What can we learn from criminology? *Asymmetric Conflict*, 1: 203–230.
- LaFree, Gary, Nancy Morris, and Laura Dugan. In press. Cross-national patterns of terrorism: Comparing trajectories for total, attributed, and fatal attacks, 1970 to 2006. *British Journal of Criminology*.
- Li, Quan. 2005. Does democracy promote or reduce transnational terrorist incidents? *Journal of Conflict Resolution*, 49: 278–297.
- Mickolus, E. F. 1982. *International terrorism: Attributes of terrorist events, 1968–1977* (ITERATE 2). Ann Arbor, MI: Inter-University Consortium for Political and Social Research.
- Midlarsky, Manus I., Martha Crenshaw, and Fumihiko Yoshida. 1980. Why violence spreads? The contagion of international terrorism. *International Studies Quarterly*, 24: 262–298.

- Nagin, Daniel S. 1999. Analyzing developmental trajectories: A semiparametric group-based approach. *Psychological Methods*, 4: 139–157.
- Nagin, Daniel S. 2005. *Group-based modeling of development over the life course*. Cambridge, MA: Harvard University Press.
- Nagin, Daniel S. and Kenneth C. Land. 1993. Age, criminal careers, and population heterogeneity: Specification and estimation of a nonparametric, mixed Poisson model. *Criminology*, 31: 327–362.
- Nagin, Daniel S., Linda Pagani, Richard E. Tremblay, and Frank Vitaro. 2003. Life course turning points: The effect of grade retention on physical aggression. *Development and Psychopathology*, 15: 343–361.
- Nagin, Daniel S. and Richard E. Tremblay. 1999. Trajectories of boys' physical aggression, opposition, and hyperactivity on the path to physically violent and nonviolent juvenile delinquency. *Child Development*, 70: 1181–1196.
- Neumayer, Eric and Thomas Plumper. 2008. *Foreign terror on Americans*. Unpublished manuscript, London School of Economics.
- Office of the Historian. 2001. *Significant terrorist incidents, 1961–2001*. Washington, DC: U.S. Department of State, Bureau of Public Affairs.
- Piquero, Nicole Leeper and Alex Piquero. 2006. Democracy and intellectual property: Examining trajectories of software piracy. *The Annals of the American Academy of Political and Social Sciences*, 605: 104–129.
- Rapoport, David C. 1992. Terrorism. In (Mary Hawkesworth and Maurice Kogan, eds.), *Routledge Encyclopedia of Government and Politics*, Volume 2. London: Routledge.
- Rapoport, David C. 2004. The four waves of modern terrorism. In (Audrey Kurth Cronin and James M. Ludes, eds.), *Attacking terrorism: Elements of a grand strategy*. Washington, DC: Georgetown University Press.
- Richardson, Harry W., Peter Gordon, and James E. Moore (eds.). 2005. *The economic impacts of terrorist attacks*. Cheltenham, UK: Edward Elgar Publishers.
- Schmid, Alex. 2004. Statistics on terrorism: The challenge of measuring trends in global terrorism. *Forum on Crime and Society*, 4: 49–69.
- Sedgwick, Mark. 2007. Inspiration and the origins of global waves of terrorism. *Studies in Conflict & Terrorism*, 30: 97–112.
- Smith, Brent L., Kelly R. Damphousse, Freedom Jackson, and Amy Sellers. 2002. The prosecution and punishment of international terrorists in federal courts: 1980–1998. *Criminology & Public Policy*, 1: 311–338.
- U.S. Department of State. 2001. *Introduction: Patterns of global terrorism, 2000*. Retrieved August 14, 2008 from state.gov/s/ct/rls/pgtr.
- U.S. Department of State. 2008. *Country reports on terrorism, 2007*. Washington, DC: Office of the Coordinator for Counterterrorism.
- Weisburd, David, Shawn D. Bushway, Cynthia Lum, and Sue-Ming Yang. 2004. Trajectories of crime at places: A longitudinal study of street segments in the City of Seattle. *Criminology*, 42: 283–322.

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