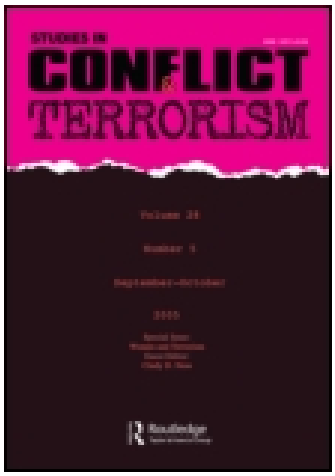

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Explaining Lone Wolf Target Selection in the United States

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The rise in lone wolf terrorist attacks worldwide in recent decades makes understanding the types of targets lone wolves choose a crucial locus of research, yet this topic remains understudied. In light of this lacuna, this article analyzes 84 lone wolf terrorist attacks that occurred in the United States between 1940 and 2012, identifies patterns in lone wolf target selection, and proposes and tests causal explanations for these patterns. I find that (1) a majority of lone wolves select civilian targets in familiar areas and (2) this is due to their relative weakness and their ideology.

In the years following the 11 September 2001 terrorist attacks, scholars' and policymakers' attention has been drawn to the threat posed by "lone wolf" terrorists in the United States.[1] This, in part, is due to the rising incidence of lone wolf attacks— while terrorist incidents as a whole in the United States, as well as group-based terrorist attacks, continue to decline in frequency,[2] lone wolf terrorism has been increasing in frequency in recent decades.[3] Unfortunately, despite this fact, lone wolf terrorism remains poorly understood. In particular, there is a serious gap in the literature concerning lone wolf target selection—few analyses have considered how lone wolves choose targets, and even fewer have sought causal explanations for these choices.

One of the factors that makes lone offender terrorism so difficult to prevent—and to analyze—is that, as Bakker and de Graaf have remarked,[4] it is a tactic embraced by individuals with varying ideological sympathies, including Islamism, radical environmentalism, and far-right extremism. It is this very ideological diversity, however, that makes lone wolf terrorism such an important object of study from a counterterrorism point of view. Further compounding the difficulty of studying this phenomenon is the fact that lone wolves, by definition, do not engage in communication with other terrorists, and can theoretically manifest themselves as any individual, which limits the usefulness of traditional interdiction and surveillance efforts by law enforcement, especially at the federal level. Moreover, these attacks are rarer and less deadly than group-based attacks,[5] making them harder to anticipate and, arguably, less deserving of attention. Bakker and de Graaf contend that

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> [lone wolves] remain very hard to pinpoint as political terrorists/activists. . . . Lone wol[ves], by definition, are idiosyncratic. They display a variety of backgrounds with a wide spectrum of ideologies and motivations: from Islamists to right wing extremists, and from confused suicidal psychopaths to dedicated and mentally healthy persons. This vast array of expressions and visions, ranging from ideological ramblings on the Internet and hate mail to fully-fledged acts of terrorism, hardly gives away anything in the sense of patterns or recurring methods behind lone wol[ves'] attacks.[6]

It is in part for the above reasons that the specifics of lone wolf terrorism remain understudied. However, until and unless the processes that govern target selection among lone wolves can be identified, it will be difficult to prevent this type of terrorist attack.

In light of this lacuna, this article illuminates trends in lone wolf target selection in the United States, and tests different causal explanations for these trends. To do this, I analyze 84 lone wolf attacks that took place in the United States between 1940 and 2012. This time period, which stretches back to the initial rise of lone wolf terrorism in the United States, provides the clearest and most expansive picture possible of the targets lone wolves tend to choose. This analysis, therefore, constitutes the first rigorous study of the attack patterns of lone wolves in the United States, a crucial locus of counterterrorism study. In this article, I define lone wolf terrorism as ideologically driven violence, or attempted violence, perpetrated by an individual who plans and executes an attack in the absence of collaboration with other individuals or groups. I find that a majority of lone wolves select civilian, nongovernment targets, and that this fact is due to a combination of two causal factors: lone wolves' ideology, which determines in large part their target choice and that leads them to choose certain civilian targets, and their relative weakness, which constrains the range of targets and tactics available to them.

This article proceeds in the following manner. The following section discusses competing explanations of target selection behavior among terrorists, identifies theoretical factors that can be used to understand how lone wolves choose targets, and proposes hypotheses based on these theoretical expectations. The next section presents the research design, breaks down trends in lone wolf target selection over time, and tests the validity of the aforementioned hypotheses, demonstrating that lone wolves mainly choose civilian targets, and that this choice is driven by a combination of weakness and ideology. Finally, in the conclusion section, these results are discussed in the context of counterterrorism policy and future research.

Theoretical Explanations of Target Selection

Much counterterrorism strategy, as well as the majority of the scholarly literature that considers solo-actor terrorism, operates under the untested assumption that the attack patterns of lone wolves are identical to, or at least overlap with, those of group-based terrorists. However, Spaaij, the author of one of the few detailed studies on lone wolf terrorist behavior, observes that, "it remains unclear to which extent dominant explanations of terrorism apply to the actions of lone individuals."[7]

The work of several scholars who have studied group-level terrorist target selection provides a useful point of departure for an analysis of lone wolf target selection. Traditionally, target selection has been studied using formal modeling,[8] game theory and economic analysis,[9] and Bayesian changepoint analysis.[10] Alternatively, Luis de la Calle and Ignacio Sánchez-Cuenca investigate target selection—understood in their case to mean the

selectivity of violent attacks—among separatist militant groups, finding that it is mainly determined by two factors: the level of resource constraints and the level of radicalism of their supporters' preferences.[11] For their part, Asal et al. identify ideological and organizational influences in terrorist groups' choice of targets.[12] In general, therefore, most studies on target selection have focused on terrorist groups, or terrorism in general, although some statistical modeling has also considered the attack patterns of lone wolves internationally.[13] However, while many of these studies offer some insight into terrorists' attack patterns, much of the analysis is too general to be of much use in distinguishing variables that could explain differences in target selection across different categories of terrorist. At the other extreme, some authors examine narrow subsets of lone wolves in the United States (e.g., Islamists[14]), but this work, while valuable, offers little in the way of inferences general to all lone wolf terrorists. Moreover, it is only when formal and theoretical models are combined with empirical data that each is at its most useful.[15]

In principle, there are multiple plausible drivers of terrorist target selection; the next portion of the article is dedicated to investigating how applicable, in theoretical terms, each driver is to lone wolf terrorists in particular, with a view to formulating hypotheses that help explain lone wolf target selection. In later sections, these hypotheses are tested empirically, and the results are discussed.

Ideology

In theory, terrorists could choose targets from an effectively unlimited supply, but most scholarship has shown that their range of suitable targets is bounded by ideological considerations. The idea that ideology would be an important influence on target selection may seem trivial; ideological motivations, in part, are what distinguish terrorists from ordinary criminals. Yet what remains to be tested is the extent to which ideology affects *how lone wolf terrorists choose targets*, not just whether they commit acts of terrorism at all.

Drake has documented how militant groups' ideology influences their choice of enemies, who are considered "deserving" of punishment and are therefore designated as appropriate targets.[16] Ideology is here considered to be "the beliefs, values, principles, and objectives—however ill-defined or tenuous—by which [an individual] defines [his or her] distinctive political identity and aims."[17] Ideology plays a dual role in driving terrorists' actions: first, it drives a group to embrace terrorism as a tactic in the first place; it then allows the terrorists to focus their violence on a structure, symbol, group of people, or other target that is representative of the enemy designated by the ideology. Therefore terrorist groups, according to Drake, do not lash out randomly, but direct violence consciously at a certain class of targets. He offers the example of the Provisional Irish Republican Army's killing of British Prime Minister Thatcher's friend, Ian Gow, to illustrate how terrorist groups' targeting is inspired by their unique stated political grievances and is far from "indiscriminate." Other authors, including Abrahms, have disputed that terrorists' actions are really calculated to achieve a political objective.[18] However, it is not necessarily a contradiction to say that their target selection reflects a political grievance without representing the most effective way of redressing said grievance.

In any case, ideology may act as a constraining influence on lone wolves' selection of targets as well. If this is true, lone wolf terrorists use their ideology to screen the range of feasible targets, and identify one that in their view "deserves" to be attacked. Target selection, if this description is accurate, would be congruent with lone wolves' stated political positions[19] and "enemy" designation. This logic leads to a hypothesis:

H_1: The targets lone wolves choose are likely to correspond with the "enemy" designated by their stated political ideology.

Alternatively, if ideology is not important to lone wolves' choice of targets, or if lone wolves are incapable due to psychopathological problems of choosing an ideologically appropriate target, attacks should be indiscriminate, and bear little relation to their political statements. If this were the case, it would constitute disconfirming evidence of hypothesis 1.

Psychological Disorders

While most literature shows that terrorists tend not to suffer from psychopathological problems,[20] the same may not be true of lone wolves. Several authors who have studied the radicalization processes of lone wolves conclude that they often exhibit psychological problems.[21] The presence of psychological disorders among lone wolves could presumably affect their target selection processes via several mechanisms. Instead of (or in addition to) being motivated by a larger ideological cause, lone wolves can be actuated by unpredictable mental processes, or they may be mentally incapable of choosing a target that best suits their stated political goals.

If lone wolf target selection is, in fact, complicated by mental or psychological disorders, one would expect lone wolves' targets to have a tenuous or non-existent connection to their stated political ideology. If, on the other hand, psychological disorders, whether present or not, have little influence on the *specific types of targets lone wolves choose*, then they should select targets based on other considerations. Thus the importance of psychopathologies in driving lone wolf target selection is implicated in hypothesis 1.

Operational Success

Terrorists want their attacks to succeed. Scholars have documented how achieving operational success is an important determinant of terrorist groups' actions,[22] including target selection, and the reasons for this are intuitive: no matter what terrorists' underlying goals are, successful attacks, from their point of view, are preferable to unsuccessful attacks. However, lone wolves are weak relative to terrorist groups, which means that their range of feasibly attackable targets is much smaller. Specifically, lone wolves have fewer resources than terrorist organizations, more limited access to firearms and weapons-building expertise, more limited surveillance and reconnaissance capability, and by virtue of more limited brainpower are less capable of planning and carrying out complex attacks than are militant groups. This means that lone wolves' attacks—or attempted attacks—are often more modest in scope, and hence tend to be less deadly, than group-based attacks.[23] Lone wolves may also be forced to improvise, or modify their plan at the last minute, due to inadequate planning or anticipation.

If lone wolves are motivated by operational success, and if their limited capabilities do in fact bear on their target selection decisions, several patterns should result. First, in terms of weapon, firearms would be the natural choice for lone wolves in the United States concerned with operational success and constrained by resource limitations. Firearms are more easily acquired than explosive, chemical or biological weapons; require less expertise to set up and operate, which increases the chances of a successful attack; and are not in themselves illegal to possess, decreasing the chances of arrest before the attack. Second, lone wolves should privilege convenience and feasibility as a primary consideration in selecting targets

and choosing tactics. This would mean eschewing nationally symbolic targets—they are harder to access and better protected—and opting for familiar, unprotected targets.

However, in light of hypothesis 1, and the literature, discussed above, on the primacy of ideology in determining terrorists' target selection, lone wolves can be expected to defy the tendency to strike in familiar areas when "ideologically appropriate" targets or tactics are not readily available. Ideologically appropriate targets are those targets, or "enemies," that are deemed deserving of attack by a given lone wolf's stated ideology, for example abortion clinics in the case of anti-abortion lone wolves.

In general, then, if lone wolves' target selection calculus is driven by a desire for operational success in the face of relative weakness, the following related hypotheses and corollary, which are tested in an upcoming section, are implied:

H_2: Lone wolves are likely to use firearms as the means of attack.
H_3: Lone wolves' targets are likely to be located in areas that are familiar to them, except when their familiar territory contains no ideologically appropriate targets.
Corollary to H_3: When familiar territory contains no ideologically appropriate targets, lone wolves will tend to travel beyond the areas with which they are familiar in order to locate such targets.

Alternatively, disconfirming evidence of the theory that operational success is an important factor in lone wolf target selection would consist of the following: first, lone wolves in the United States would, like terrorist organizations, aim for nationally symbolic targets,[24] regardless of how well these targets are protected or how far away they are located from terrorists' daily routines. Second, lone wolves, like terrorist organizations, would rely principally on explosives to execute their attacks, despite the added difficulty attendant to such a tactical decision.

Public Support

Various scholars have discussed terrorist target selection as the result of a competition for public support among terrorist groups and between them and the government of the state in which attacks occur.[25] In this model of terrorist attack behavior, terrorists choose strategy and targets in an effort to marshal recruits, resources, and public support to their side. Yet while this understanding of terrorist strategy is arguably applicable to the actions of organizations, it may be ill-suited to the task of explaining the behavior of individuals who plan and execute attacks alone: lone wolves, by definition, do not rely on resources or support from other individuals, and do not recruit other terrorists to carry out their attacks. If lone wolves are, in fact, indifferent to public support, they would feel no need to avoid civilian targets and, indeed, would be more likely to choose such targets given their greater prevalence and lower levels of protection. This logic leads to the following hypothesis and corollary:

H_4: Lone wolves are likely to attack civilian targets, except when such a choice would not be ideologically appropriate.
Corollary to H_4: In cases where military or government targets are ideologically appropriate, lone wolves will tend to select these targets despite the added difficulty associated with doing so.

If this hypothesis is correct, lone wolves, in the interest of maximizing the chances of operational success, will tend to opt for civilian targets. However, the corollary to hypothesis 4 predicts that this tendency will hold only to the extent that lone wolves'

ideology permits: hypothesis 1, supported by the literature on group-based target selection discussed above, suggests that terrorists' ideologies determine in large part which targets they deem eligible for selection. Therefore, in cases where a lone wolf is actuated by an antimilitary or antigovernment ideology, the influence of that ideology can be expected to supersede the relative convenience of selecting a civilian target, culminating in an attack on a non-civilian target in spite of the added difficulty associated with such a target choice.

If, on the other hand, hypothesis 4 is incorrect and lone wolves are motivated by a desire to win public backing, lone wolves can be expected, as a general rule, to eschew civilian targeting, as this would alienate their potential base of support and undermine their ideological goals.[26]

Research Design and Methods

This section is dedicated to testing empirically the hypotheses discussed above regarding operational success, ideology, psychological disorders, and public support.

In the following section, I analyze a series of 84 attempted and perpetrated lone wolf terrorist attacks that occurred in the United States between 1940 and 2012. These 84 cases are, to my knowledge, exhaustive of the incidents that occurred in the United States over the time period considered, and thus represent a useful starting point for studying this phenomenon. The list of 84 cases, which may be consulted in the Appendix, derives from the work of Hamm, Spaaij, and Hewitt,[27] data from the Global Terrorism Database,[28] as well as my own research using open-source news documents[29]; the necessity of this admittedly patchwork sample results from the paucity of data and research on lone wolf terrorism.

The literature on lone wolf terrorism also suffers from a lack of a clear definition. Criteria for being included in the list of cases subjected to study in this article are as follows: each case under consideration entails an instance (or multiple instances perpetrated by the same actor) of ideologically driven violence or attempted violence, planned and carried out by an individual who conceives and carries out an attack while acting alone. Individuals who are included in this list of cases may, in the past, have had connections with other radical groups or individuals, but (1) planned and (2) executed the attacks attributed to them independent of direction from, or collaboration with, such outside influences. In other words, the unit of analysis is a lone wolf terrorist attack (or, in rare cases, a series of related attacks perpetrated by one individual). This methodological choice is in keeping with the objective of this article, which is to assess how terrorists' target selection processes are affected by a lack of collaboration with others.

I first enumerate, using three categories, the types of targets chosen by lone wolves in the United States using the 84 cases described above. Specifically, targets are classified as civilian targets, government targets, or military targets. Civilian targets include private citizens, their property, religious figures and institutions, businesses, and abortion clinics. Government targets include government structures, property, employees (including judges), politicians, national monuments, airports and airplanes,[30] and police. Military targets include the Pentagon, military bases, recruiting centers, and the personnel of these military installations.[31]

Next, I empirically test the hypotheses outlined above in order to account for the patterns in lone wolf target selection that emerge from the 84 cases, and I also describe trends in lone wolf target selection over time. To test the importance of ideology as an influence on target choice, I examine the extent to which targets chosen by lone wolves are representative of the "enemy" designated by their stated ideology, and for counterterrorism purposes I also rank ideologies by number of attacks and by number of fatalities caused.

Each case is categorized by the ideology of the attacker (which is in turn gleaned using the attacker's political statements).

The test of the influence of ideology on target selection, then, also constitutes a test of the importance of psychological disorders as a factor in target selection. If lone wolves are able to choose targets that comport with their stated political ideology, this means that psychopathologies, whether present or not, have no measurable influence on their target selection. Put another way, the aim of this section is not to establish whether or not lone wolves suffer from psychological disorders in general, but rather to determine whether such disorders influence how their targets are chosen. In reality, many lone wolves likely exist on a continuum between the two ideal types of perfect psychological health and complete psychopathy, yet in terms of target selection, the classification is decidedly binary: they either choose a target that is compatible with their stated political ideology, or they do not.[32]

Next, a two-part test examines the extent to which the desire to maximize operational success in the face of relative weakness impinges on lone wolves' choice of targets. As stated above, lone wolves have fewer resources than militant groups, so if operational success is an important driver of their target selection, they should (1) choose familiar targets and (2) use less sophisticated, and more readily available weapons like firearms.

Finally, the public support hypothesis is tested by examining the extent to which lone wolves avoid attacking civilian targets.

Explaining Lone Wolf Target Selection in the United States, 1940–2012

Target Selection Findings

Overall, about 60 percent of lone wolves in the list of cases chose civilian targets, while government targets were selected approximately 32 percent of the time, and military targets only accounted for around 7 percent of attacks.

Figure 1 offers a general picture of the breakdown in target choice among lone wolves in the United States, showing that lone wolves overwhelmingly choose civilian and government targets. What explains this breakdown? In other words, which factors determine the targets that lone wolves select? The remainder of this section is dedicated to testing the hypotheses proposed above.

Ideology and Psychopathology

The first test evaluates the degree to which ideology influences how lone wolves identify targets. In the cases subjected to study, an overwhelming majority of targets chosen by lone wolves in the United States since 1940 were representative of groups, religions, or symbols that their respective attackers had deemed "enemies." More specifically, of the 84 cases, 80 were clearly directed at targets considered "enemies" by their attacker based on their political statements. In the other cases, the attacker was either killed before a motive could firmly be established, or was mentally disabled. Table 1 identifies the ideologies that motivated the attacks, and classifies them by their relative frequency and deadliness.[33]

Several observations can be made based on these data. The first point is that they lend credence to the theory, expressed in hypothesis 1, that lone wolf target selection is overwhelmingly an ideologically driven process, as most lone wolves chose targets that clearly corresponded with the class of "enemies" that they identified using their ideology. This comports with the findings of various authors[34] who have remarked that militant

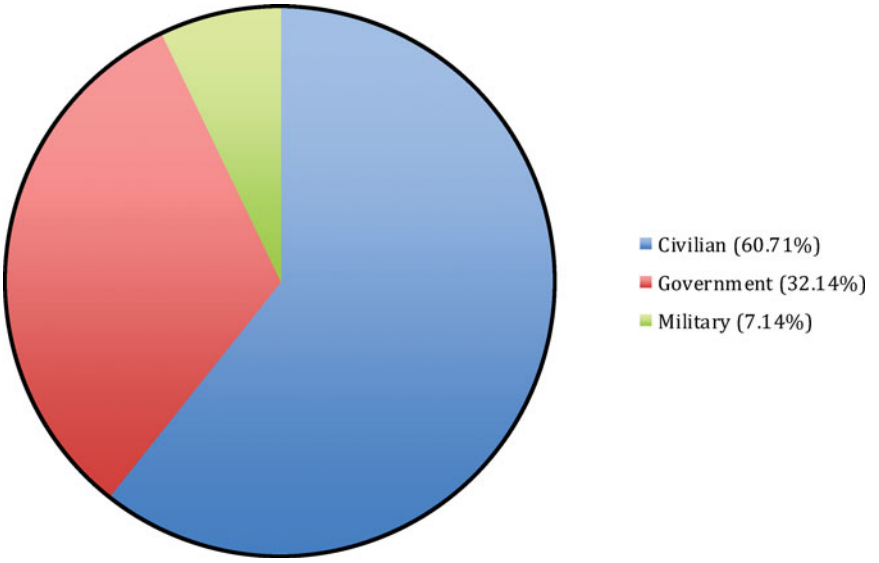

Figure 1. Lone wolf target selection in the United States, 1940–2012.

groups' targeting is ideological. Second, these findings represent disconfirming evidence of the idea that lone wolf target selection is a process resulting from mental or psychological problems. The subjects investigated here may well suffer from such problems, but they were, by and large, able to select targets in an instrumentally logical manner if one takes their expressed ideology as a given. Radical anti-abortion activists, to take one example, have targeted abortion clinics and providers: Michael Griffin shot and killed David Gunn, an OB-GYN, to stop him from performing abortions at his Pensacola, Florida clinic. To take another example, antigovernment activists have attacked buildings, people or symbols associated with government: Demetrius Van Crocker, who harbored a "hatred of the U.S.

Table 1
Lone wolf terrorist attacks in the United States from 1940–2012, by ideology

Ideology	No. of attackers	% of total	No. of fatalities	% of total
Anti-Civil Rights/Anti-Black Racism	6	7.14	20	14.92
Anti-White Racism	3	3.57	17	12.68
Anti-Abortion Sentiment	10	11.90	7	5.22
Anti-Semitism/Anti-Israel Sentiment	6	7.14	7	5.22
Antigovernment Sentiment	9	10.71	3	2.23
Right-Wing Extremism	15	17.86	47	35.07
Left-Wing Extremism	4	4.76	0	0
Radical Islamism	19	22.62	17	12.68
Other	8	9.52	3	2.23
Unknown	4	4.76	13	9.70
TOTAL	84		134	

government," conspired to attack a Tennessee courthouse using chemical weapons and explosives.[35]

Examining Table 1, an obvious point is that lone wolf terrorism is perpetrated by offenders of many ideologies. However, the diversity of lone wolf attackers' ideologies—and of the targets that correspond—belies several distinct patterns, or waves, that have emerged over time. The first period, from 1940 to 1970, was characterized by relatively few (6) incidents of lone wolf terrorism, perpetrated mostly by anti–civil rights and anti-Black terrorists. In the next few decades, the frequency of solo-actor terrorist incidents continued to rise, with 6 in the 1970s, 8 in the 1980s, and 15 in the 1990s. In these years, a more ideologically diverse set of individuals began to embrace the tactic, including anti-abortion and right-wing extremists. Finally, the period following the 11 September 2001, attacks saw lone wolf incidents accelerate even more rapidly, as Hamm and others have observed.[36] Indeed, 40 incidents occurred from 2009 to 2012 alone, including 15 of the 19 total radical Islamist attacks. Overall, radical Islamists constitute a plurality of the cases, while the deadliest ideology, as measured by the percentage of total fatalities caused, is right-wing extremism.[37]

The preceding paragraphs have illustrated how lone wolves rely on ideology to identify targets, yet what really distinguishes lone wolves as a unique terrorist threat is the very fact that they act alone, meaning that they act in the face of limited resources. What remains to be investigated is whether this weakness is a factor in their selection of targets.

Operational Success and Weakness

As stated above, if operational success is an important element in target selection, lone wolves, who are weaker than terrorist groups, should select easily accessible, familiar, unhardened targets, and should do so using easily attainable weapons, namely firearms. The first test of the role of weakness entails an investigation into *where* terrorists choose targets.

Several scholars seeking to identify recurring spatial patterns in terrorist attacks have examined the extent to which proximity to a terrorist's hometown is a predictor of how likely it is a given target will be attacked. Smith observes that 44 percent of group-based attacks in the United States in the preceding 25 years took place within 30 miles of terrorists' residences.[38] Eby, for his part, concludes that many solo terrorists do not leave their hometowns when attempting to carry out an attack, but also acknowledges that there exists a broad range of distances between terrorists' targets and their homes.[39] From this, it appears that proximity to a terrorist's hometown is a reasonably useful, albeit imperfect, predictor of where an attack will take place. If lone wolf terrorists' weakness relative to terrorist groups is a contributing factor to their target selection, the former should exhibit an especial propensity to strike in familiar areas.

What constitutes a "familiar" target to a terrorist is here operationalized in the following way: familiar attacks are considered to be those that fall somewhere along what Brantingham and Brantingham called criminal offenders' "nodes, paths and edges."[40] By this phrase they meant the defining geographical features of offenders' daily routines—routes to and from work, neighborhoods surrounding where they live, places they frequent in their town or city, and so on. In the past, this concept has been used in the criminology literature[41] to understand where ordinary criminals commit crimes, but as lone wolves are subject to the same physical and mental constraints as criminals acting alone, there is reason to believe that "nodes, paths, and edges" may be a useful import to the study of lone wolf terrorism.

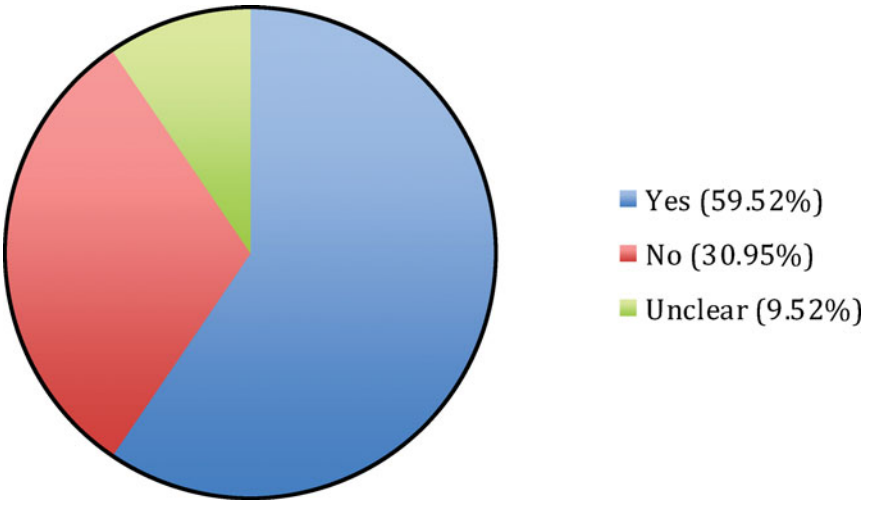

Figure 2. Percentage of lone wolves in the United States who attacked along "nodes, paths, and edges" from 1940–2012.

In fact, a sizeable majority of the attacks considered in this article reflect lone wolves' proclivity to strike in areas that are familiar to them. Thus proximity to a terrorist's home is not necessarily the best predictor of where an attack may occur. Rather, attacks tend to occur at the intersection between an offender's travel patterns and his ideology. Consideration of several cases will serve to demonstrate this point.

Mir Qazi, the lone perpetrator of the 1993 CIA shootings in Langley, Virginia, was a Pakistani immigrant who said he was motivated to attack by U.S. foreign policy in the Middle East. While staying at a friend's apartment in Reston, Virginia, Qazi worked as a courier, in which capacity he passed by the CIA headquarters highway exit almost daily. Seeing that during the morning commute the exit was frequently backed up, one day Qazi stopped his car behind a long line of vehicles and fired an assault weapon into them. Later, he expressly admitted having conceived of the attack in the course of his many trips past CIA headquarters.[42]

To take another example, Hosem Maher Husein Smadi, a Jordanian citizen, admitted to attempting to bomb a Dallas skyscraper in 2009. He lived and worked in Italy, Texas, a small town about 45 miles outside of Dallas, and plotted to carry out a terrorist attack out of an espousal of radical Islamist beliefs. The skyscraper he eventually targeted, Fountain Place, was only about a half-mile from a (now defunct) nightclub, Cirque, that he was known to frequent.[43]

Figure 2 illustrates lone wolf target familiarity. In all, nearly 60 percent of the cases examined had an identifiable geographical connection to the target the terrorist eventually chose.[44] In most situations, individuals selected targets that were congruent with their stated political ideology, but they mainly confined their target selection to areas with which they, verifiably, had familiarity based on their daily routines.

Approximately 10 percent of the lone wolves studied had an ambiguous or tenuous connection to their target, and around 30 percent had no discernible connection. Yet even some lone wolves who did not, strictly speaking, strike at some waypoint on their "daily routine" still chose targets that were familiar to them. In 2002, for example, a man named Steve Kim was arrested in New York City for shooting at the United Nations building and

security guards in apparent protest of human rights conditions in North Korea. He was a resident of Illinois, but had visited the UN building two weeks prior to the attack with his son.[45]

Other lone wolves who do not conform to the "nodes, paths, and edges" pattern were constrained by their ideology to choose targets that existed outside their familiar areas. For example, terrorists wishing to act against the United States federal government are obliged to select targets representative of that organization, which are often located in Washington, D.C. This is the case, for example, with Dwight Watson, a farmer from North Carolina who wanted to protest against the federal government's tobacco policies. He drove his tractor to Washington, D.C., and threatened to set off a bomb on the Washington Mall.[46] If, by contrast, he had carried out an attack, say, in his North Carolina hometown, the "message" he was intending to impart would perhaps not have been received. This tendency highlights the importance of ideology in determining the range of targets from which lone wolves choose, and confirms the predictions of hypothesis 3 and its corollary.

Another example of an exception to the connection between familiar areas and potential targets involves anti-abortion lone wolves. Whether they target structures—that is, the abortion clinics—or individuals—that is, the medical personnel who perform abortions or the patients who seek them, this particular type of terrorist is constrained in his choice of targets by the fact that abortions are only performed in certain places. For this reason, several anti-abortion lone wolves were forced to go out of their way to execute an attack, including James Kopp, of Jersey City, who traveled to Buffalo in order to kill Barnett Slepian, a doctor who performed abortions.[47]

Taken as a whole, however, these data reveal a signal tendency for terrorists who act alone to strike in areas with which they have some familiarity, with the caveat that ideology is the first, most important limiting factor. In general, terrorists holding ideologies with more narrowly defined populations of "enemies" will adhere less to the "nodes, paths, and edges" tendency. This data is supportive of the theory that weakness, combined with a desire for operational success, does impinge on terrorist target selection.

The foregoing section highlighted the role that weakness plays in target selection; in a related vein, this section discusses how lone wolf weapon selection is affected by their

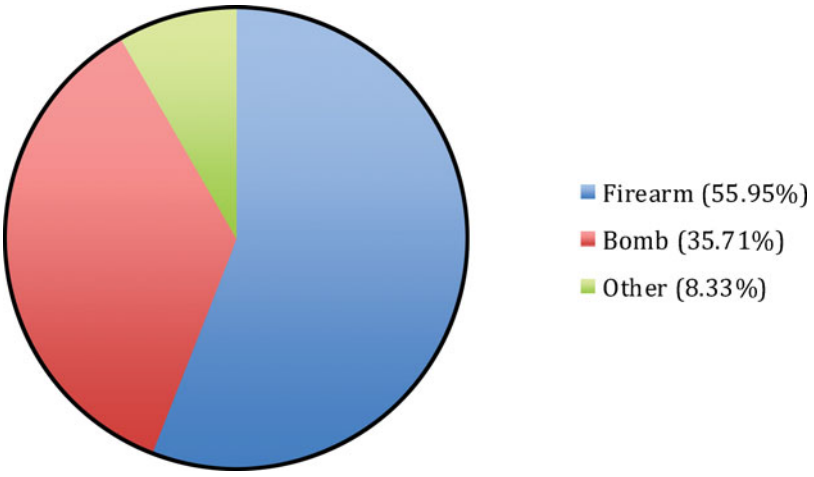

Figure 3. Lone wolf weapon selection in the United States, 1940–2012.

weakness. To recapitulate, if their relative lack of capability is at play, American lone wolves should select weapons based on ease of acquisition and use, not symbolic value or fatality maximization.

Relative to their group-based counterparts, and in support of the theory—expressed in hypothesis 2—that weakness is important in weapon selection decisions, lone wolves in the United States disproportionately use firearms as the means of attack. In the cases considered in this article, fully 55 percent of attackers used some sort of gun as their main weapon, as Figure 3 illustrates.[48]

The main reason for this, as Spaaij and others point out, is the "relative ease with which ... firearms can be obtained in the United States."[49] Compared to global lone wolf terrorists,[50] those who strike in the United States are markedly more inclined toward firearms: according to Spaaij, 43 percent of the global lone wolf terrorists in his sample used firearms, 28 percent used an explosive device, and 16 percent hijacked a vehicle.[51] And in terrorist attacks on the United States between 1970–2011, inclusive of both lone wolf and group-based attacks, a clear majority, 52.09 percent, involved explosives, while only around 13 percent of attacks involved a firearm.[52] Overall, the above data are strong, confirming evidence of the theory that the attack decisions of terrorists who act alone are driven by their relative weakness compared to terrorist groups.

Several temporal trends emerge from the data on weapon choice over time. The most visible trend is the precipitous rise in bomb and explosive attacks since the 11 September 2001 terrorist attacks. Of the 30 bomb attacks in the universe of cases, 22 occurred after 9/11, 11 of them by radical Islamists. Even in this period, guns still constitute a plurality of the weapons chosen, yet lone wolf terrorists have shown an increasing capability to acquire bombmaking materials and build a functional device, although many of the devices failed, were defused, or the suspect was apprehended before an attack could occur. Lone wolf terrorists have also exhibited a desire to embrace other novel weapons in carrying out their attacks, including cars, chemical weapons, and arson, though these types of weapons remain rare.

The main takeaway from the analysis of the 84 lone wolf attacks is that firearms remain the weapon of choice, closely followed, in recent years at least, by explosives. Other types of weapons, while not unheard of, are rare in comparison to guns and bombs, a fact that is very likely a consequence of lone wolves' weakness.

Public Support

Based on lone wolves' proclivity for civilian targets, the public support hypothesis is likely ill-equipped to explain their target selection behavior, as hypothesis 4 and its corollary predict. Terrorists motivated by a desire to cultivate sympathy and material support on the part of civilians can be expected to avoid civilian targets; yet lone wolves, in the majority of cases considered in this article, do in fact opt for civilian targets. Furthermore, the lone wolves who selected military or government targets, in the majority of cases, were motivated by ideologies that impelled them to select such targets. In other words, when lone wolves' did deviate from the tendency to select civilian targets, it was apparently an ideologically driven decision, and not a bid to garner public support.

The role of public support in lone wolves' calculus cannot totally be dismissed, however. It may be that lone wolves who attack civilians do wish to marshal support, but are constrained by their relative weakness to choose civilian targets, although they would prefer military or government targets, other things equal. In other words, the evidence adduced in this article demonstrates that lone wolves' target selection is driven significantly by their weakness and ideology, and that these forces are more important factors than any potential

desire to maximize public support, but *not* that there is no desire at all to generate public support.

Conclusion: Policy Implications and Future Research

This article analyzes trends in lone wolf target selection in the United States, and tests hypotheses in an effort to explain these trends. Overall, the data show that lone wolf target selection is predominantly an ideologically driven process, and one that is limited due to the constraints lone wolves face in operating alone. The findings present both challenges and opportunities for policymakers, who are increasingly becoming aware of the scope of the lone wolf threat.

Lone wolves are what might be called "weak opportunists." As discussed above, lone wolves exhibit a propensity to strike at the intersection of their ideology and their daily routines. Their ideology focuses their designation of "enemy" groups, and their daily routine, in many cases, provides the specific location for an attack. From a counterterrorism point of view, this confluence of ideology and target choice on the part of lone wolf terrorists is quite propitious, as it allows for a more nuanced understanding of which classes of targets are vulnerable to attack than is possible by merely examining the civilian–military–government breakdown of target selection that is usual in the terrorism literature.

How, then, should policymakers respond to the lone wolf threat? Efforts such as target hardening are likely to be ineffective against lone wolves in light of their tendency to strike in familiar, local areas—and to eschew (in most cases) the prominent, urban targets that terrorists, especially terrorist organizations, are often presumed to prefer. This tendency implies a special role for communities and local law enforcement agencies in monitoring at-risk individuals, especially since firearms, as the weapon of choice for lone wolves, are more easily attainable in the United States than in many other countries.

In terms of future research, this article establishes that the diversity of lone wolf terrorists in the United States extends to their ideologies, ages, locations, occupations, and, of course, targets, diminishing the likelihood of identifying a "profile" of lone wolf terrorists. Instead, more research needs to be done to discover the social, emotional and, potentially, genetic precursors of lone wolf activity. As lone wolves are predominantly locally focused, and do not, by definition, communicate with other terrorists, there is little chance of disrupting lone wolf plots, except through chance or incompetence, without mitigating the forces that isolate individuals and drive them toward violent action.

Notes

1. See, for example, Jeff Gruenewald, Steven Chermak, and Joshua Freilich, "Far-Right Lone Wolf Homicides in the United States," *Studies in Conflict and Terrorism* 36(12) (2013), pp. 1005–2024; Raffaello Pantucci, "A Typology of Lone Wolves: Preliminary Analysis of Lone Wolf Terrorists," *Developments in Radicalisation and Political Violence* 101(3) (2011), pp. 1–39; "Napolitano: Lone Wolf Terror Threat Growing," *CBS News*, 2 December 2011; "Obama Says 'Lone Wolf Terrorist' Biggest U.S. Threat," *Reuters*, 16 August 2011; Jason Ryan, "Attempted Terror Attack Likely, Intelligence Chiefs Warn," *ABC News*, 2 January 2010.

2. See Gary LaFree, Laura Dugan, and Erin Miller, "Integrated United States Security Database (IUSSD): Terrorism Data on the United States Homeland, 1970 to 2011," *Final Report to Resilient Systems Division, DHS Science and Technology Directorate* (College Park, MD: National Consortium for the Study of Terrorism and Responses to Terrorism, University of Maryland, 2012).

3. Christopher Hewitt, *Understanding Terrorism in America: from the Klan to Al Qaeda* (London: Routledge, 2003); Ramón Spaaij, *Understanding Lone Wolf Terrorism: Global Patterns, Motivations and Prevention* (Dordrecht: Springer, 2012).

4. Edwin Bakker and Beatrice de Graaf, "Lone Wolves: How to Prevent this Phenomenon" (paper presented at the Expert Meeting of the International Centre for Counter-Terrorism, The Hague, Netherlands, November 2010). For an analysis of the history and evolution of "leaderless resistance" as a tactic, see Jeffrey Kaplan, "'Leaderless Resistance,'" *Terrorism and Political Violence* 9(3) (1997), pp. 80–95; see also Paul Joosse, "Leaderless Resistance and Ideological Inclusion: The Case of the Earth Liberation Front," *Terrorism and Political Violence* 19(3) (2007), pp. 351–368. For an analysis of the types of ideologies lone wolves adhere to, see Jeffrey Simon, *Lone Wolf Terrorism: Understanding the Growing Threat* (Amherst, NY: Prometheus Books, 2013).

5. Victor Asal and R. Karl Rethemeyer, "The Nature of the Beast: Organizational Structures and the Lethality of Terrorist Attacks," *The Journal of Politics* 70(2) (2008), pp. 437–449.

6. Edwin Bakker and Beatrice de Graaf, "Preventing Lone Wolf Terrorism: Some CT Approaches Addressed," *Perspectives on Terrorism* 5 (2011), pp. 43–50.

7. Ramón Spaaij, "The Enigma of Lone Wolf Terrorism: An Assessment," *Studies in Conflict and Terrorism* 33(9) (2010), pp. 854–870. For a discussion of the motivations and radicalization processes of lone wolves, see Rodger Bates, "Dancing With Wolves: Today's Lone Wolf Terrorists," *The Journal of Public and Professional Sociology* 4(1) (2012).

8. Todd Sandler and Harvey E. Lapan, "The Calculus of Dissent: An Analysis of Terrorists' Choice of Targets," *Synthese* 76(2) (1988), pp. 245–261.

9. Stephen Charles Nemeth, "A Rationalist Explanation of Terrorist Targeting" (Ph.D. diss., University of Iowa, 2010); Robert Powell, "Defending Against Terrorist Attacks with Limited Resources," *American Political Science Review* 101(3) (2007), pp. 527–541; Peter Phillips, "Lone Wolf Terrorism," *Peace Economics, Peace Science and Public Policy* 17(1) (2010); Austin Wright, "Terrorism, Ideology and Target Selection," Working Paper (2013). Available at http://www.princeton.edu/politics/about/file-repository/public/Wright_on_Terrorism.pdf (accessed 9 February 2014).

10. Charlinda Santifort, Todd Sandler, and Patrick T. Brandt, "Terrorist Attack and Target Diversity: Changepoints and Their Drivers," *Journal of Peace Research* 50(1) (2013), pp. 75–90.

11. Luis de la Calle and Ignacio Sánchez-Cuenca, "The Production of Terrorist Violence: Analyzing Target Selection in the IRA and ETA" (paper presented at the annual meeting of the International Studies Association 48th Annual Convention, Chicago, Illinois, 16 December 2013).

12. Victor Asal, R. Karl Rethemeyer, Ian Anderson, Allyson Stein, Jeffrey Rizzo, and Matthew Rozea, " The Softest of Targets: A Study on Terrorist Target Selection," *Journal of Applied Security Research* 4(3) (2009), pp. 258–278.

13. Charles Eby, "The Nation that Cried Lone Wolf: A Data-Driven Analysis of Individual Terrorists in the United States since 9/11" (Master's thesis, Naval Postgraduate School, 2012); Ramón Spaaij, "The Enigma of Lone Wolf Terrorism."

14. See Pantucci, "A Typology of Lone Wolves."

15. Rebecca B. Morton, *Methods and Models: A Guide to the Empirical Analysis of Formal Models in Political Science* (Cambridge, UK: Cambridge University Press, 1999).

16. C. J. M. Drake, "The Role of Ideology in Terrorists' Target Selection," *Terrorism and Political Violence* 10(2) (1998), pp. 53–85.

17. Ibid.

18. Max Abrahms, "What Terrorists Really Want: Terrorist Motives and Counterterrorism Strategy," *International Security* 32(4) (2008), pp. 78–105.

19. Inferring ideology solely from attack behavior runs the risk of tautological reasoning, so I analyze attackers' statements to discover their ideology.

20. Martha Crenshaw, "The Causes of Terrorism," *Comparative Politics* 13(4) (1981), pp. 379–399; Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004).

21. Hamm, "Lone Wolf Terrorism in America: Forging a New Way of Looking at an Old Problem," Working Paper (2012); Hewitt, *Understanding Terrorism in America*; Spaaij, "The Enigma of Lone Wolf Terrorism: An Assessment."

22. See Stephen Charles Nemeth, "A Rationalist Explanation of Terrorist Targeting" (Ph.D. diss., University of Iowa, 2010).

23. Some scholars emphasize the role of the Internet and other technology as a force that greatly amplifies the capability of solo actor terrorists—see, for example, George Michael, *Lone Wolf Terror and the Rise of Leaderless Resistance* (Nashville, TN: Vanderbilt University Press, 2012). However, this work focuses principally on the enhanced role of the Internet in the training, radicalization, and planning stages of a terrorist's life cycle. Most scholarship indicates that at the execution stage, lone wolves' capabilities are limited in terms of their possible targets and the scale of their attacks compared to terrorist organizations, whose members can collaborate on tasks and hold specialized roles. For the relationship between organization size and lethality, see Asal and Rethemeyer, "The Nature of the Beast: Organizational Structures and the Lethality of Terrorist Attacks." For the importance of the number of participants to the strength of protest and insurgent movements, see James DeNardo, *Power in Numbers: The Political Strategy of Protest and Rebellion* (Princeton, NJ: Princeton University Press, 1985).

24. See, for example, Nemeth, "A Rationalist Explanation of Terrorist Targeting," p. 30.

25. Mia M. Bloom, "Palestinian Suicide Bombing: Public Support, Market Share, and Outbidding," *Political Science Quarterly* 119(1) (2004), pp. 61–88; Aaron Clauset, Lindsay Heger, Maxwell Young, and Kristian Skrede Gleditsch, "The Strategic Calculus of Terrorism: Substitution and Competition in the Israel–Palestine Conflict," *Cooperation and Conflict* 45(1) (2010), pp. 6–33; Andrew Kydd and Barbara Walter, "The Strategies of Terrorism," *International Security* 31(1) (2006), pp. 49–80.

26. The connection made here between a desire to maximize civilian support and an aversion to civilian targeting is supported by Jeremy Weinstein, *Inside Rebellion: The Politics of Insurgent Violence* (New York: Cambridge University Press, 2007); see also scholarship demonstrating that civilian targeting is associated with failure to achieve terrorists' political objectives, for example, Max Abrahms, "Does Terrorism Really Work? Evolution in the Conventional Wisdom Since 9/11," *Defence and Peace Economics* 22(6), pp. 583–594; Eric D. Gould and Esteban F. Klor, "Does Terrorism Work?" *Quarterly Journal of Economics* 125(4) (2010), p. 1507.

27. Hamm, "Lone Wolf Terrorism in America"; Spaaij, *Understanding Lone Wolf Terrorism: Global Patterns, Motivations, and Prevention*; Hewitt, *Understanding Terrorism in America: From the Klan to Al Qaeda*. I use these authors' works to compile a list of lone wolf attacks that occurred in the United States between 1940 and 1970, the year when the Global Terrorism Database's data (see endnote 28) begins. These authors' criteria for inclusion in the list of lone wolf terrorist cases are compatible with my own, with one exception: Hewitt defines a "lone wolf terrorist" as no more than three individuals, while my definition comprises only lone individuals; where the cases he identifies conflict with my definition, I remove them from consideration.

28. "Global Terrorism Database," *National Consortium for the Study of Terrorism and Responses to Terrorism* (START) (2012). Available at http://www.start.umd.edu/gtd. I drew information from this source for the cases that took place between 1970 and 2012. This source provided the following information about each case: the perpetrator's name, the date of the attack, the type of target (government, civilian, or military), the number of fatalities, and the weapon used. Each perpetrator's ideology was gleaned from his or her political statements, which were themselves found using nationally diffused news sources such as those described in endnote 29. From these sources, I also established whether the perpetrator was familiar with his target (i.e., whether it occurred along the "nodes, paths and edges" of his daily routine).

29. Information about attackers' political statements, and about their familiarity with their targets, was compiled using nationally diffused news sources such as the *New York Times*, the *Los Angeles Times*, *CNN*, *ABC News*, and others. Other information about each case was established using the Global Terrorism Database (see endnote 28), and the work of Spaaij, Hamm and Hewitt (see endnote 27).

30. Although airplanes could also be considered civilian targets, they are regulated, coordinated, and secured by the federal government. Furthermore, since they are primarily used for inter-state travel, airplanes hold national symbolism that other forms of transportation do not: hijackings and in-flight bombings are usually viewed as attacks on the "nation," not on the specific state in which the attack occurred.

31. No single attack was coded as belonging to multiple categories; rather, each was coded based on the category to which it most nearly belonged.

32. Of course, the hypothetical presence of a psychological disorder could conceivably have repercussions for other aspects of lone wolf terrorism, like the decision to commit a terrorist act in the first place. But if a lone wolf is able to identify a target that is congruent with his expressed ideology, there is no way to prove that a psychological disorder was behind his *target choice*.

33. Attackers were coded based on political statements they made before or after the attacks. I did not count attacker suicides as fatalities.

34. For example, Drake, "The Role of Ideology in Terrorists' Target Selection."

35. "Tips Lead to Sting, Prison for Plotter," *F.B.I.*, 2006. Available at http://www.fbi.gov/news/stories/2006/november/terror_112906 (accessed 12 February 2014).

36. Hamm, "Lone Wolf Terrorism in America."

37. Of course, some lone wolf terrorists' ideologies do not fit neatly into the nine umbrella categories I propose, while others overlap multiple categories. In cases where a terrorist had an idiosyncratic motive that did not correspond with any of the umbrella categories, I coded the ideology as "other," and in cases where overlap existed, I coded the terrorist based on the most similar ideology.

38. Brent Smith, "A Look at Terrorist Behavior: How They Prepare, Where They Strike," *National Institute of Justice Journal* 260 (2008).

39. Eby, "The Nation that Cried Lone Wolf."

40. Patricia Brantingham and Paul Brantingham, "Nodes, Paths and Edges: Considerations on the Complexity of Crime and the Physical Environment," *Journal of Environmental Psychology* 13(1) (1993), pp. 3–28.

41. See, for example, Particia Brantingham and Paul Brantingham, "Mobility, Notoriety, and Crime: A Study in the Crime Patterns of Urban Nodal Points," *Journal of Environmental Systems* 11(1) (1981), pp. 89–99; Jerry H. Ratcliffe, "A Temporal Constraint Theory to Explain Opportunity-Based Spatial Offending Patterns," *Journal of Research in Crime and Delinquency* 43(3) (2006), pp. 261–291.

42. Justice A. Christian Compton, "Opinion of the Circuit Court of Fairfax County," 6 November 1998. Available at http://www.courts.state.va.us/opinions/opnscvwp/1980797.pdf (accessed 23 February 2014).

43. James C. McKinley, Jr., "Friends' Portrait of Texas Bomb Plot Suspect at Odds with F.B.I.," *New York Times*, 27 September 2009.

44. Subjects were considered to have attacked along "nodes, paths, and edges" if their target was located in an area with which they had some obvious familiarity. This would be the case, for example, if the target were located on the same street and near to where the lone wolf lived, or on a route he or she took to work. In cases where familiarity could not be firmly established, but was likely, for example, if the attack took place in a prominent public area in the same town as the attacker's home, the case was coded as unclear.

45. "Shots at U.N. Narrowly Miss Employees," *CNN*, 3 October 2002.

46. Carol D. Leonnig, "Man Gets Six-Year Term for D.C. Tractor Standoff," *Washington Post*, 24 June 2004.

47. David Staba, "Doctor's Killer Tries to Make Abortion the Issue," *New York Times*, 13 January 2007.

48. Lone wolf terrorists were coded based on their primary weapon in cases where multiple weapons were used. In cases of attempted or unsuccessful attacks, they were coded based on the weapon they tried, or threatened, to use.

49. Spaaij, *Understanding Lone Wolf Terrorism*, p. 72.

50. Meaning all lone wolves, no matter where they strike or from where they come.

51. Spaaij, *Understanding Lone Wolf Terrorism*, pp. 72–73.

52. LaFree, Dugan and Miller, "Integrated United States Security Database (IUSSD)."

Appendix

List of cases: Lone wolf attacks in the United States, 1940–2012

Name	Date	Target	Total fatalities	Nodes, paths, and edges	Ideology	(Primary) Weapon
Metesky	1940–56	Civilian	0	Yes	Idiosyncratic	Bomb
Simpson	1963	Civilian	1	Yes	Anti-Black Racism	Gun
De La Beckwith	1963	Civilian	1	No	Anti-Black Racism	Gun
Ray	1968	Civilian	1	No	Anti-Black Racism	Gun
Sirhan	1968	Government	1	No	Anti-Israel	Gun
Long	1970–75	Civilian	7	Yes	Anti-Black Racism	Gun
Essex	1972–73	Government	9	Yes	Anti-White Racism	Gun
Kurbegovic	1974	Government	3	Yes	Idiosyncratic	Bomb
Otero	1975	Government	0	Yes	Idiosyncratic	Bomb
Franklin	1976–80	Civilian	At least 18	No	Radical Right-Wing	Gun
Kaczynski	1978–95	Civilian	3	No	Radical Right-Wing	Bomb
Christopher	1980–81	Civilian	At least 9	Yes	Anti-Black Racism	Gun
Spisak	1982	Civilian	3	Yes	Radical Right-Wing	Gun
Mayer	1982	Civilian	0	No	Radical Left-Wing	Bomb
Kholya	1983	Government	0	No	Antigovernment	Hijacking
Kahl	1983	Government	3	Yes	Radical Right-Wing	Gun
Moody	1989	Government	2	No	Antigovernment	Bomb
Shannon	1992–93	Civilian	0	No	Anti-Abortion	Gun
Qazi	1993	Government	2	Yes	Radical Islamism	Gun
Griffin	1993	Civilian	1	Yes	Anti-Abortion	Gun
Ferguson	1993	Civilian	6	Yes	Anti-White Racism	Gun
Baz	1994	Civilian	1	Yes	Anti-Semitism	Gun
Hill	1994	Civilian	2	Yes	Anti-Abortion	Gun
Salvi	1994	Civilian	2	No	Anti-Abortion	Gun

(Continued on next page)

Appendix

List of cases: Lone wolf attacks in the United States, 1940–2012 *(Continued)*

Name	Date	Target	Total fatalities	Nodes, paths, and edges	Ideology	(Primary) Weapon
Shoemake	1996	Civilian	1	Yes	Anti-Black Racism	Gun
Rudolph	1996–98	Civilian	4	No	Radical Right-Wing	Bomb
Kamal	1997	Civilian	1	Yes	Radical Islamism	Gun
Kopp	1998	Civilian	1	No	Anti-Abortion	Gun
Smith	1999	Civilian	2	Yes	Radical Right-Wing	Gun
Alexander	1999	Government	0	No	Unclear	Bomb
Furrow	1999	Civilian	1	No	Anti-Semitism	Gun
Taylor	2000	Civilian	2	Yes	Anti-White Racism	Gun
Baumhammers	2000	Civilian	5	Yes	Radical Right-Wing	Gun
Helder	2002	Civilian	0	No	Antigovernment	Bomb
Hadayet	2002	Government	2	Yes	Anti-Israel	Gun
Steve Kim	2002	Government	0	No	Idiosyncratic	Gun
Watson	2003	Government	0	No	Antigovernment	Bomb
Van Crocker	2004	Government	0	Unclear	Radical Right-Wing	Bomb/Chemical Weapons
Taheri-azar	2006	Civilian	0	Yes	Radical Islamism	Car
Shareef	2006	Civilian	0	Yes	Radical Islamism	Bomb (Grenade)
Haq	2006	Civilian	1	Yes	Anti-Israel	Gun
Evans	2007	Civilian	0	Yes	Anti-Abortion	Bomb
Adkisson	2008	Civilian	2	Yes	Radical Right-Wing	Gun
Ramsey	2008	Government	0	Yes	Antigovernment	Biological Weapons
Roeder	2009	Civilian	1	No	Anti-Abortion	Gun
Bledsoe	2009	Military	1	Yes	Radical Islamism	Gun

Shaw	2009	Civilian	0	Yes	Radical Left-Wing	Bomb
Finton	2009	Government	0	Unclear	Radical Islamism	Bomb
Hasan	2009	Military	13	Yes	Radical Islamism	Gun
Poplawski	2009	Government	3	Yes	Radical Right-Wing	Gun
Cartwright	2009	Government	2	Yes	Radical Right-Wing	Gun
Smadi	2009	Civilian	0	Yes	Radical Islamism	Bomb
von Brunn	2009	Government	1	Unclear	Anti-Semitism	Gun
Luke	2009	Civilian	2	Yes	Radical Right-Wing	Gun
Stack	2010	Government	1	Yes	Antigovernment	Airplane
Bedell	2010	Government	0	No	Antigovernment	Gun
Mohamud	2010	Civilian	0	Yes	Radical Islamism	Bomb
Shahzad	2010	Civilian	0	Unclear	Radical Islamism	Bomb
Whitaker	2010	Government	0	No	Antigovernment	Gun
Williams	2010	Government	0	Unclear	Radical Right-Wing	Gun
Hassoun	2010	Civilian	0	Yes	Radical Islamism	Bomb
Huff	2010	Government	0	No	Radical Right-Wing	Gun
Melaku	2010	Military	0	Yes	Radical Islamism	Gun
Lee	2010	Civilian	0	Yes	Radical Left-Wing	Gun
Martinez	2010	Military	0	Yes	Radical Islamism	Bomb
Smith	2010	Civilian	0	Unclear	Anti-Muslim	Bomb
Moose	2010	Civilian	0	Yes	Anti-Abortion	Bomb
Aldawsari	2011	Government	0	No	Radical Islamism	Bomb
Ferdaus	2011	Military	0	No	Radical Islamism	Bomb

(Continued on next page)

Appendix

List of cases: Lone wolf attacks in the United States, 1940–2012 *(Continued)*

Name	Date	Target	Total fatalities	Nodes, paths, and edges	Ideology	(Primary) Weapon
Loughner	2011	Government	6	Yes	Unclear	Gun
Harpham	2011	Civilian	0	Unclear	Radical Right-Wing	Bomb
Pimentel	2011	Civilian	0	Yes	Radical Islamism	Bomb
Abdo	2011	Military	0	No	Radical Islamism	Gun
Lang	2011	Civilian	0	No	Anti-Abortion	Gun
Crawford	2011	Civilian	0	Yes	Anti-Muslim	Arson
Osmakac	2012	Civilian	0	Yes	Radical Islamism	Gun
Grady	2012	Civilian	0	Yes	Anti-Abortion	Bomb
Stout	2012	Civilian	0	Yes	Anti-Muslim	Arson
el-Khalifi	2012	Government	0	No	Radical Islamism	Bomb
Chi	2012	Civilian	0	Yes	Antigovernment	Bomb
Corkins	2012	Civilian	0	Yes	Radical Left-Wing	Gun
Linn	2012	Civilian	0	Unclear	Anti-Muslim	Arson
Page	2012	Civilian	6	Yes	Unclear	Gun
Aldosary	2012	Government	1	Yes	Unclear	Bomb