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Risk Factors and Indicators Associated With Radicalization to Terrorism in the United States: What Research Sponsored by the National Institute of Justice Tells Us

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Executive Summary

Since its creation in 2012, the National Institute of Justice's Domestic Radicalization to Terrorism program has sponsored research to support community members and practitioners in (1) identifying individuals who are radicalizing to terrorism and (2) developing prevention and intervention efforts. Although several of these projects are ongoing, important findings regarding the potential risk factors and indicators¹ associated with engaging — or attempting to engage — in terrorism have begun to emerge. As many of these findings were based on analyses that compared individuals who engaged or attempted to engage in terrorism with those who did not, there is increasingly strong evidence that these risk factors and indicators may help practitioners to distinguish between individuals who are more or less likely to attempt to conduct a terrorist attack, as well as provide a foundation for prevention and intervention programs.

Potential risk factors that were identified in research that included both group-based and lone-actor terrorists of varied ideologies (as well as nonviolent comparison groups) are listed below.

While some of these risk factors are static, meaning that they cannot change over time (e.g., having a criminal history), others can change and, thus, suggest possible avenues for prevention and intervention efforts. Specifically, depending on which risk factors are relevant in individuals' particular cases, efforts that focus on addressing terrorist beliefs, treating mental health issues, improving individuals' employment or educational prospects, and/or helping them to develop and sustain positive relationships with nonextremist and nondelinquent peers may contribute to prevention and intervention strategies.

Potential risk factors that were identified in research that included only lone-actor terrorists are listed on page iii below. As can be seen, there is some overlap between these risk factors and those found in the analyses of both group-based and lone-actor terrorists. Specifically, having a criminal history, having mental health issues (or having received a diagnosis of schizophrenia or delusional disorder), being unemployed, being single, being a loner (or

¹ A risk factor generally increases the likelihood that a certain outcome will occur, whereas an indicator generally helps to assess whether it is occurring.

**Potential Risk Factors Associated With Engaging or Attempting to Engage in Terrorism
Among Both Group-Based and Lone-Actor Terrorists in the U.S.**

Having a History of Criminal Violence
Having a Criminal History
Having Been Involved With a Gang or Delinquent Peers
Having a Terrorist Friend
Being a Member of an Extremist Group for an Extended Period
Having a Deep Commitment to an Extremist Ideology
Having Psychological Issues
Being Unemployed
Having a Sporadic Work History
Having Less Education
Having a Lower Social Economic Status
Failing to Achieve One's Aspirations
Having Trouble in Romantic Relationships
Having Trouble in Platonic Relationships
Having Been Abused as an Adult
Being Distant From One's Family

socially isolated), and having military experience² were identified as potential risk factors for engaging or attempting to engage in terrorism in both sets of analyses. In addition, having personal and political grievances, having an enabler who assists in planning an attack or provides the inspiration for it, having at least a bachelor's degree, living alone, and being male were also identified as potential risk factors among lone actors.³

Taken together, these findings again suggest that efforts that focus on treating mental health issues, improving individuals' employment prospects, and/or helping them to develop and sustain positive relationships may contribute to prevention and intervention efforts. They also provide

some evidence that these efforts may need to take into account individuals' personal and political grievances.

Although fewer potential indicators associated with engaging or attempting to engage in terrorism were identified in NIJ-sponsored research — and only one of these was based on an analysis that included a nonviolent comparison group — the findings tentatively suggest that those who are closest to individuals may be well positioned to observe some of the potential warning signs that they may be moving toward terrorism. Specifically, lone actors who engaged or attempted to engage in terrorism tended to broadcast their intent to do so, as well as convey information about their grievances, extremist ideologies,

² The finding that having military experience was associated with engaging or attempting to engage in terrorism is possibly related to individuals' capabilities or perceived capabilities of carrying out an attack.

³ Since the potential risk factors related to (1) having personal and political grievances and (2) having an enabler were not identified based on analyses that included nonviolent comparison groups, they should be considered tentative.

**Potential Risk Factors Associated With Engaging or Attempting to Engage in Terrorism
Among Lone-Actor Terrorists in the U.S.**

Having a Criminal Record

Having Personal & Political Grievances

Having Received a Diagnosis of Schizophrenia or Delusional Disorder

Having an Enabler

Being Unemployed

Having at Least a Bachelor's Degree

Being Socially Isolated

Being Single

Living Alone

Having Military Experience

Being Male

or desire to hurt others. It is, however, important to note that these findings were not based on analyses that included a comparison group, and thus it may be the case that there are even more individuals who convey similar information but who do not go on to engage or attempt to engage in terrorism. Thus, these types of statements cannot be assumed to be either necessary or sufficient evidence that the individuals who make them will follow their words with action. Finally, two potential indicators possibly related to planning or preparing for attacks — attending more extremist group meetings and stockpiling weapons — were also identified.

When comparing the potential risk factors and indicators identified in NIJ-sponsored research with the risk factors and/or indicators included in three existing instruments and methods developed to assess the risk of individuals engaging in extremist crime (The Extremist Risk Guidelines; ERG 22+), extremist violence (The Violent Extremist Risk Assessment, Consultative Version 2; VERA 2), or general violence (The Historical Clinical Risk Management-20, Version 3; HCR-20^{v3}), there was substantial overlap.

As can be seen on the next page, nine out of 10 of the categories of potential risk factors and indicators identified in NIJ-sponsored research are included in at least one of the existing risk assessment instruments or methods examined.

There are, however, some distinctions in which categories are included based on whether these instruments and methods focus on assessing the risk of general violence versus extremist crime and/or terrorism. Specifically, risk factors and indicators related to having (1) trouble in professional, educational, and economic domains and (2) trouble in relationship domains are included only in the method developed to assess the risk of general violence (the HCR-20^{v3}); and risk factors and indicators related to having (1) extremist associates, (2) an extremist ideology and/or grievances, and (3) skills and resources for committing violence are included only in the instruments and methods developed to assess the risk of extremist crime or violence (the ERG 22+ and VERA 2). Overall, these findings suggest that while many of the risk factors and indicators associated with engaging in terrorism may not be that different from those associated with engaging in violence

Comparison Between Categories of Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research and Those Included in Existing Risk Assessment Instruments and Methods

Category	ERG 22+	VERA 2	HCR-20 ^{v3}
Past History of Violence		x	x
Past History of Criminal Activity/Delinquency	x		x
Extremist Associates	x	x	
Extremist Ideology/Grievances	x	x	
Intent to Commit Violence		x	x
Skills/Resources for Committing Violence	x	x	
Mental Health Issues	x		x
Trouble in Professional/Educational/Economic Domains			x
Specific Demographic Characteristics			

more generally — and, thus, programs developed to mitigate the risk of violence among individuals not motivated by extremist ideologies may have relevance to those who are — risk factors and indicators related to having extremist associates, extremist beliefs, and skills and resources for committing violence may also need to be considered when developing risk assessment protocols as well as prevention and intervention programs.

Finally, there are several limitations to this research that need to be kept in mind, including those related to missing or potentially inaccurate data, the need

to make judgments that are sometimes subjective, and the likelihood that some of the individuals included in the various analyses overlap. It is also essential to note that not all individuals who experience or are exposed to risk factors — or exhibit indicators — associated with engaging or attempting to engage in terrorism go on to do so. While research that analyzes samples of terrorists can help to identify characteristics, experiences, and behaviors that are *generally* associated with an outcome, further work is required to determine whether these characteristics, experiences, and behaviors are relevant in the case of a particular individual.

Risk Factors and Indicators Associated With Radicalization to Terrorism in the United States: What Research Sponsored by the National Institute of Justice Tells Us

Introduction

Since its creation in 2012, the National Institute of Justice's Domestic Radicalization to Terrorism program has sponsored research to support community members and practitioners in (1) identifying individuals who are radicalizing to terrorism⁴ and (2) developing prevention and intervention efforts.⁵ To do so, it has funded top social and behavioral science researchers from around the world to examine risk factors, protective factors, and indicators associated with radicalization to terrorism in the United States. These research teams have studied a wide range of groups and individuals who support and commit ideologically motivated terrorism to further political, social, or religious goals, including Islamist terrorists but also those associated with anti-government, anti-capitalist, nativist, and other political and social terrorist movements (often referred to as "religious," "left-wing," "right-wing," and "single-issue" terrorism in the literature).

Although many of these projects are ongoing, important findings regarding the potential risk factors and indicators associated with individuals engaging — or

⁴ There are different definitions of violent extremism, radicalization, and terrorism, but, for the purpose of this paper, terrorists are those individuals who support or commit ideologically motivated violence to further political, social, or religious goals; radicalization is the process by which individuals enter into terrorism; and terrorism is an act that involves the threatened or actual use of ideologically motivated violence to further political, social, or religious goals.

⁵ For the purpose of this paper, prevention efforts focus on addressing the broader underlying conditions that may be associated with radicalization to terrorism. (These would be referred to as "primary prevention" efforts in the public health literature.) Intervention efforts focus on either (1) identifying individuals who are potentially at risk for radicalizing to terrorism and developing tailored programs to mitigate this risk ("secondary prevention" efforts) or (2) rehabilitating those who have already radicalized ("tertiary prevention" efforts).

attempting to engage — in terrorism have begun to emerge.^{6,7} This paper begins by providing a brief background on risk factors and indicators, how they were identified in NIJ-sponsored research, and some general limitations that need to be considered when interpreting the results of these analyses. It then presents findings based on four NIJ-sponsored projects and some of the possible implications of these findings for prevention and intervention efforts. Next, it compares these findings with the risk factors and indicators included in three existing risk assessment instruments and methods that have been developed to assess the likelihood that individuals will engage in illegal extremist activity, terrorism, or violence in general. Finally, it concludes by providing an overview of the findings and discussing next steps.

Background

Risk Factors

In the most basic sense, a risk factor is something that *increases the likelihood* that a certain outcome will occur, in this case that an individual will engage or attempt to engage in terrorism. In other words, individuals who have experienced or are exposed to the potential risk factors identified in the NIJ-sponsored research discussed below may be more likely to engage or attempt to engage in terrorism.

It is important to note, however, that this does not mean that everyone who has experienced or is exposed to a relevant risk factor — or even several relevant risk factors — will engage or attempt to engage in terrorism. Radicalization to terrorism is a complex process that has been shown to vary by the extremist ideologies individuals embrace, the time periods in which they radicalize, the groups or movements they join, and individuals' own characteristics and experiences (Hamm & Spaaij, 2015a; Horgan et al., 2016; Klausen et al., 2016; LaFree, 2015).⁸ While research that analyzes samples of terrorists can help to identify characteristics and experiences that *generally* increase the likelihood that individuals will engage or attempt to engage in terrorism, further investigation is required to determine whether these characteristics and experiences are relevant in the case of a particular individual.

Further, engaging or attempting to engage in terrorism is a very rare activity, and as will be seen below, several of the risk factors that have been identified by the research teams are shared among substantial portions of the general U.S. population. While, arguably, specific combinations of risk factors are shared by fewer individuals, predicting with any accuracy who will engage or attempt to engage in this very rare activity is an unrealistic goal. On the other hand, using risk factors to assess the *relative likelihood* that individuals who have already raised concerns may engage or attempt to engage in terrorism may be more

⁶ This paper focuses on risk factors and indicators associated with engaging or attempting to engage in terrorism as opposed to those associated with (1) engaging in nonviolent extremist crime or (2) endorsing extremist beliefs but not engaging in any type of illegal activity. Further, it focuses on risk factors and indicators associated with individuals (versus groups) engaging or attempting to engage in terrorism.

⁷ Although NIJ is also sponsoring research to identify protective factors that may decrease the likelihood of individuals radicalizing to terrorism, this research is in an earlier stage and will be discussed in a future paper.

⁸ NIJ-sponsored research is also exploring risk factors, protective factors, and indicators associated with engaging in extremist crime and terrorism among individuals who embrace specific extremist ideologies (e.g., Islamist terrorism), but this paper focuses on risk factors and indicators that are common across individuals who embrace a range of extremist ideologies.

feasible. Additionally, the identification of valid risk factors can help to inform the development of prevention and intervention programs focused on mitigating the threat of terrorism.⁹

Indicators

Whereas risk factors may increase the likelihood that a certain outcome will occur, indicators may help to assess whether it is occurring. To give an example, although thinking poorly of others and viewing violence in a positive manner may be risk factors for engaging in bullying, frequently getting into physical or verbal fights may be an indicator of it. Indicators may also be used to assess whether an individual is experiencing or being exposed to a specific risk factor. Using the same example, making frequent comments that seem to promote violence may be an indicator of an individual's positive attitude toward it.

Similar to risk factors, it is not expected that every individual who exhibits one or more potential indicators associated with an outcome is necessarily engaging in or experiencing it (e.g., many children who get into physical or verbal fights are not bullying others). On the other hand, when used judiciously, the identification of evidence-based indicators associated with engaging in an activity such as terrorism may help community members and practitioners to identify and stop

these activities before they reach their final stages.

Identifying Potential Risk Factors and Indicators Associated With Engaging or Attempting to Engage in Terrorism

Numerous risk factors and indicators potentially associated with whether an individual engages or attempts to engage in terrorism have been identified in NIJ-sponsored research projects (Hamm & Spaaij, 2015a; Hamm & Spaaij, 2015b; Horgan et al., 2016; P. James, personal communication, February 4, 2016; Jasko, LaFree, & Kruglanski, 2016; Sawyer, 2016; B. Smith, personal communication, April 8, 2016; Smith et al., 2016). In some projects, these risk factors and indicators have emerged from analyses that compare extremists who engaged or attempted to engage in terrorism with extremists who did not. In these cases there is evidence that the hypothesized risk factors and indicators are more likely to be associated with individuals who engage in this behavior and, equally important, are less likely to be associated with individuals who do not. As a consequence, there is stronger evidence that they may help practitioners to distinguish between extremists who are more and less likely to attempt or conduct a terrorist attack as well as provide a foundation for the development of intervention programs.¹⁰

⁹ Again, the importance of identifying protective factors that can inform risk assessments and the development of prevention and intervention programs should not be underestimated.

¹⁰ It should be noted that the composition of an ideal comparison group depends on the purpose of the analysis being conducted. For example, when the goal of an analysis is to inform practitioners responsible for assessing whether an individual may pose a threat of engaging in terrorism in order to advise criminal justice agencies on appropriate follow-up actions (e.g., pursuing further investigation, engaging in specific tailored interventions, rehabilitating or releasing individuals who have been incarcerated), arguably it would be most appropriate to compare individuals who have engaged or attempted to engage in terrorism with other extremists who have come to law enforcement or public attention but who have not engaged or attempted to engage in terrorism. If, on the other hand, the goal of an analysis is to inform community members and practitioners interested in understanding characteristics and experiences that may make an individual more vulnerable to radicalization to terrorism in order to develop general prevention and/or early intervention efforts, it may be more appropriate to compare individuals who have engaged or attempted to engage in terrorism with members of the larger population of nonextremists.

Other projects were not directly focused on distinguishing between individuals who do and do not engage or attempt to engage in terrorism, and thus they did not include nonviolent comparison groups. In these cases, this paper reports only those potential risk factors or indicators that meet at least one of two criteria: (1) there is concrete evidence that they are more prevalent among the terrorists studied than among the general U.S. population¹¹ and/or (2) they are associated with the majority (i.e., 50 percent or more) of individuals the researchers examined. If a risk factor or indicator meets the first criterion, there is evidence that it may, in combination with other risk factors and indicators, help community members and practitioners to identify those individuals among the general U.S. population who have a higher likelihood of — or are in the process of — radicalizing to terrorism. The risk factors identified may also suggest areas for prevention and early intervention programs to address. If a risk factor or indicator only meets the second criterion, its validity and corresponding utility are not as clear, although it still may be worthy of note.¹²

Limitations of the Research

When examining the findings discussed below, it is important to keep in mind that they are based on analyses that vary in terms of the terrorists being examined and with whom these individuals were compared (when there was a comparison group). While all of the research focused on extremists who were based in the U.S. and who embraced a range of extremist ideologies, the four projects differed in terms of the other criteria they used when developing their samples. The research conducted by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) based at the University of Maryland examined the radicalization processes and trajectories of violent and nonviolent (both criminal and noncriminal) extremists and included both group-based and lone actors.¹³ Similarly, the research team led by the University of Arkansas collected data on violent and nonviolent members of extremist groups and lone actors, but this project only included individuals who had been indicted for terrorism or terrorism-related activities in U.S. federal courts.¹⁴ The two other

¹¹ Again, this type of general population comparison group would be more valuable when conducting analyses to inform the development of general prevention and/or early intervention efforts.

¹² To give an example, consider the finding that 41 percent of a random sample of individuals who engaged in unwanted approaches toward members of the U.S. Congress or their staffs between October 1998 and July 1999 expressed a desire to harm or have harm occur to (i.e., threatened) the person they approached (Scalora et al., 2003). On the surface, this would seem to be an important indicator that an individual was preparing to engage in harmful activity. At the same time, however, the research team found that 65 percent of a random sample of individuals who *did not* engage in unwanted approaches toward members of the U.S. Congress or their staffs during the same time period (but who came to law enforcement attention) also threatened members of Congress or their staffs, a percentage that is substantially and significantly higher than the one associated with those who engaged in unwanted approaches. In other words, in this case those who did not express these types of threatening communications engaged in more unwanted approaches. That being said, given that a substantial proportion of individuals who engaged in unwanted approaches also expressed these types of communications — which, by their very nature, are concerning — it is highly unlikely that anyone would advise community members or practitioners to ignore them.

¹³ The “Empirical Assessment of Domestic Radicalization Project” (NIJ Award #2012-ZA-BX-0005) is led by principal investigator (PI) Michael Jensen and conducted by a project team that includes Patrick James, Kasia Jasko (Jagiellonian University, Poland), Gary LaFree, Daniela Pisoiu (University of Hamburg, Germany), Anita Atwell Seate, John Stevenson, and Herbert Tinsley.

¹⁴ The projects “Identity and Framing Theory, Precursor Activity, and the Radicalization Process” (NIJ Award #2012-ZA-BX-0003) and “Sequencing Terrorists’ Precursor Behaviors: A Crime Specific Analysis” (NIJ Award #2013-ZA-BX-0001) are led by PI Brent Smith and conducted by a project team that includes Andy Brooks, Kelly Damphousse (University of Oklahoma), Kevin Fitzpatrick, Brent Klein, Paxton Roberts, David Snow (University of California, Irvine), and Anna Tan (University of California, Irvine).

projects — led by Indiana State University¹⁵ and the University of Massachusetts Lowell¹⁶ — focused only on lone actors who had engaged in terrorism.¹⁷ Table 1 includes some of the key characteristics of the individuals included in the projects highlighted in this paper.

As can be inferred from Table 1, it is likely the case that some of the individuals included in the analyses conducted by these four NIJ-sponsored project teams overlap.

For example, it may be the case that a lone actor who engaged in terrorism during the 1990s would be included in all four projects and that, because of this, similarities between the projects' findings may be due in part to the fact that they analyzed some of the same individuals. Although this possibility cannot be ruled out, when comparing the findings identified in the projects that included both group-based and lone actors with the projects that included only lone actors, it would seem less

Table 1: Characteristics of U.S.-Based Extremists Included in Highlighted Projects

Project Team	Lone Actors/ Group Actors	Ideologies Embraced	Nonviolent Comparison Group	Sample/Population
START	Both	Varied	Extremists who did not attempt to engage in terrorism	This project randomly sampled 1,475 individuals from the larger population that met its inclusion criteria. ¹⁸ It is the only project that also includes extremists who did not engage in any illegal extremist activity. The time period covered is from 1965 to 2013.
University of Arkansas	Both	Varied	Extremists who did not attempt to engage in terrorism	This project includes 1,373 individuals indicted for terrorism or terrorism-related activities in U.S. federal court between 1980 and 2015.
Indiana State University	Lone Actors	Varied	N/A	This project includes all 98 individuals who engaged in terrorism in the U.S. but acted alone, did not belong to a group, and were not directed by others. The time period covered is from 1940 to 2013.
University of Massachusetts Lowell	Lone Actors	Varied	N/A	This project includes all 71 individuals who engaged in ideologically inspired violence in the U.S. in support of a broader group but who acted alone. The time period covered is from 1990 to 2013.

¹⁵ The project “Lone Wolf Terrorism in America: Using Knowledge of Radicalization Pathways to Forge Prevention Strategies” (NIJ Award #2012-ZA-BX-0001) was led by PI Mark Hamm and conducted in collaboration with Ramon Spaaij (Victoria University, Australia).

¹⁶ The project “Across the Universe? A Comparative Analysis of Violent Behavior and Radicalization Across Three Offender Types With Implications for Criminal Justice Training and Education” (NIJ Award #2013-ZA-BX-0002) was led by John Horgan (now at Georgia State University) and conducted by a project team that included Noemie Bouhana (University College London), Emily Corner (University College London), Paul Gill (University College London), and James Silver.

¹⁷ The project conducted by the University of Massachusetts Lowell compared lone-actor terrorists with solo mass murderers. Because the latter also engage in criminal violence, they were not considered an ideal comparison group for the purpose of assessing the potential threat an individual posed.

¹⁸ The project included individuals who radicalized in the U.S.; who espoused ideological motives and who acted on these motives; and who had (1) been arrested, (2) been indicted, (3) been killed in action, (4) been members of or associated with designated terrorist organizations, and/or (5) been members of or associated with organizations whose leaders or founders had been indicted for ideologically motivated terrorism.

likely that any similarities in their findings are due exclusively to an overlap in the individuals analyzed.¹⁹

In addition to the potential overlap in the extremists included in the four projects, it is also important to keep in mind other limitations associated with collecting and analyzing the types of open-source data used in these projects. These include problems with missing data, which occur when researchers are unable to find any information (positive or negative) on the specific characteristics or behaviors they would like to analyze.²⁰ In two of the projects discussed below, this resulted in individuals for whom data were not available being excluded from analyses, and in many cases, this led to findings that were based on only a small portion of the sample.²¹ As a consequence, it is not possible to assess whether the findings would be the same if data were available for all of the individuals included in these projects. Further, even when data were available for an individual, it may be the case that some of the information collected was not accurate. The project teams tried to minimize this possibility by drawing on multiple sources when collecting data, but given the clandestine nature of many of the activities they examined, some degree of inaccuracy seems inevitable.

It is also important to consider that assessing whether an individual has experienced or been exposed to certain risk factors, such as having a deep commitment to an extremist ideology, may

require subjective judgments on the part of researchers. The research teams tried to address this by having multiple individuals make these judgments independently and then comparing their assessments, but it is possible that different research teams might reach different conclusions. It could also be the case that a risk factor or indicator that one team found important to analyze was not viewed as important by other teams and, thus, was not analyzed.

Findings From NIJ-Sponsored Research

Potential Risk Factors

Potential risk factors associated with engaging or attempting to engage in terrorism among both group-based and lone-actor extremists are displayed in Table 2 (P. James, personal communication, February 4, 2016; Jasko, LaFree, & Kruglanski, 2016; Sawyer, 2016; Smith et al., 2016; B. Smith, personal communication, April 8, 2016).

All of the potential risk factors listed in this table are based on analyses that include a comparison group of extremists who did not engage or attempt to engage in terrorism. Specifically, these analyses involved calculating bivariate correlations or chi-square tests of independence to examine the relationship between each potential risk factor and engaging or attempting to engage in terrorism. In other words, each risk factor's relationship

¹⁹ Approximately 15 percent of the extremists included in the START project and approximately 6 percent of the extremists included in the University of Arkansas project were lone actors.

²⁰ Missing data may also occur when an individual who engaged in terrorism or nonviolent extremist activity is not included in a project because he or she has not been apprehended or otherwise identified.

²¹ In the analyses that involved both group-based and lone actors (i.e., those conducted by START and the University of Arkansas), it was frequently the case that data were missing for more than 50 percent of the individuals included in the sample. In the analyses that involved only lone actors (i.e., those conducted by Indiana State University and the University of Massachusetts Lowell), if information about relevant characteristics or behaviors was not available for individuals, these individuals were included in the analyses, and it was assumed that they did not possess these characteristics or engage in these behaviors.

Table 2: Potential Risk Factors Associated With Engaging or Attempting to Engage in Terrorism Among Both Group-Based and Lone-Actor Terrorists in the U.S.

Potential Risk Factor	Identified By
Having a History of Criminal Violence ²²	START
Having a Criminal History ²³	START
Having Been Involved With a Gang or Delinquent Peers	START
Having a Terrorist Friend	START
Being a Member of a Terrorist Group for an Extended Period of Time ²⁴	University of Arkansas
Having a Deep Commitment to an Extremist Ideology	START
Having Psychological Issues ²⁵	START
Being Unemployed	START
Having a Sporadic Work History	START
Having Less Education	START and University of Arkansas
Having a Lower Social Economic Status	START
Failing to Achieve One's Aspirations	START
Having Trouble in Romantic Relationships	START
Having Trouble in Platonic Relationships	START
Having Been Abused as an Adult	START
Being Distant From One's Family	START
Being a Loner	START
Being Single	START and University of Arkansas
Being Younger	START and University of Arkansas
Having Military Experience	University of Arkansas
Being a Lone Actor	START

with engaging or attempting to engage in terrorism was examined on its own as opposed to in relationship with other risk factors. As a result, it is not possible to determine from the findings presented above how these potential risk factors interact with each other or whether

particular combinations of risk factors have especially strong (or weak) relationships with engaging in terrorism. On the other hand, presenting the potential risk factors in this manner allows for more straightforward comparisons between findings from different studies.

²² This and the following variable include cases in which individuals had histories of criminal activity but had not necessarily been convicted of these crimes.

²³ Further analysis revealed that having a purely nonviolent criminal history was not related to engaging or attempting to engage in terrorism. However, because the projects examining lone actors — as well as some of the risk assessment instruments and methods discussed later in the paper — use this broader variable, it is included in the table.

²⁴ The 465 individuals in the University of Arkansas project for whom data on both the legal and temporal/geospatial aspects of their cases were available were included in this analysis. This represents the individuals indicted in approximately 20 percent of federal terrorism or terrorism-related cases between 1980 and 2015. The researchers found that the demographic characteristics of this sample were consistent with those of the total population of individuals indicted in federal terrorism or terrorism-related cases between 1980 and 2015 (Smith et al., 2016).

²⁵ This includes cases in which individuals had not necessarily received an official diagnosis of a mental disorder.

Potential risk factors associated with engaging or attempting to engage in terrorism among lone-actor extremists are displayed in Table 3 (Corner, Gill, & Mason, 2015; Hamm & Spaaij, 2015a; Hamm & Spaaij, 2015b; Horgan et al., 2016). Cases in which the prevalence of the potential risk factor among lone-actor extremists could be compared with its prevalence among members of the general U.S. population²⁶ are listed first, followed by cases in which no comparison between individuals who did and did not engage or attempt to engage in terrorism is available.

As can be seen from examining Tables 2 and 3, having a criminal history, having mental health issues (or having received a diagnosis of schizophrenia or delusional disorder among lone actors), being unemployed, being single, being a loner or socially isolated, and having military experience were associated with a higher likelihood of engaging or attempting to engage in terrorism in research that included both group-based and lone-actor extremists, as well as in at least one study that included only lone-actor terrorists. These findings may be particularly important, as they were identified in studies that included different samples of terrorists, and they were based on at least one set of analyses that included a nonviolent comparison group.

While the potential relationship between engaging or attempting to engage in terrorism and lacking employment or positive social support has been discussed in previous research (e.g., Schmid, 2013; Weine & Ahmed, 2012), the findings that having a previous criminal history and/or mental health issues were potential risk factors for engaging or attempting

to engage in terrorism seem striking. On the one hand, this may call into question the distinction that is often made between terrorists, who are thought to be driven by ideology, and “common” criminals, who are not (e.g., Pressman & Flockton, 2012). On the other hand, numerous studies have emphasized the psychological normality of terrorists (e.g., Post, Sprinzak, & Denny, 2003; Sageman, 2005), although more recent research suggests that the reality may be more complex (Corner & Gill, 2015; Corner, Gill, & Mason, 2015; Gruenewald, Chermak, & Freilich, 2013). In addition, the finding that having military experience was associated with engaging or attempting to engage in terrorism is unexpected but possibly related to these individuals’ capabilities or perceived capabilities of carrying out an attack, which may play an important role in whether they attempt to do so (e.g., Lloyd & Dean, 2015; Pressman & Flockton, 2012; Willis et al., 2005).

These findings also suggest possible avenues for prevention and intervention efforts as, with the exceptions of having a criminal record and having military experience, all of the potential risk factors identified are dynamic, meaning that they can change over time. Thus, in cases in which these potential risk factors are present and relevant, efforts to address individuals’ mental health issues, improve their employment prospects or situations, and/or provide them with stronger social support may contribute to prevention and intervention strategies. Further, as some of these types of efforts may also be relevant to individuals who engage in other types of concerning behaviors (e.g., gang activity, youth violence), adapting existing efforts focused on mitigating these behaviors may also be a possibility.

²⁶ Given that the vast majority of lone-actor terrorists were male, data on the prevalence of potential risk factors among members of the male U.S. population were used when available. In general, finding data on the prevalence of these various characteristics and behaviors in the general population was challenging, and efforts to systematically collect and catalog these types of data would benefit future research on terrorism and a range of other topics.

Table 3: Potential Risk Factors Associated With Engaging or Attempting to Engage in Terrorism Among Lone-Actor Terrorists in the U.S.

Potential Risk Factor (Prevalence Among Lone Actors) ²⁷	Prevalence Among U.S. Population	Identified By
Being Male (100%)	49% ²⁸	Indiana State University
Being Male (99%)		University of Massachusetts Lowell
Being Single (80%)	48% of males ²⁹	Indiana State University
Being Single (81%)		University of Massachusetts Lowell
Being Unemployed (71%)	4% - 11% of males ³⁰	Indiana State University
Being Unemployed (38%)		University of Massachusetts Lowell
Having a Criminal Record (55%)	<31% ³¹	Indiana State University
Having Criminal Convictions (58%)		University of Massachusetts Lowell
Living Alone (44%)	27% ³²	University of Massachusetts Lowell
Having at Least a Bachelor's Degree (40%)	32% of males ³³	University of Massachusetts Lowell
Having Received a Diagnosis of Schizophrenia (13%) or Delusional Disorder (6%)	<1% ³⁴	University of Massachusetts Lowell
Having Military Experience (28%)	13% of males ³⁵	Indiana State University
Having Military Experience (32%)		University of Massachusetts Lowell
Having Personal & Political Grievances (80%)	N/A	Indiana State University
Having an Enabler (67%)	N/A	Indiana State University
Being Socially Isolated (51%)	N/A	University of Massachusetts Lowell

²⁷ The percentages reported for the University of Massachusetts Lowell project represent the prevalence of the potential risk factors among all of the lone-actor terrorists included in the sample, whereas those reported for the Indiana State University project represent their prevalence among post-9/11 lone-actor terrorists who were not part of sting operations.

²⁸ According to the 2010 U.S. Census, 49.1 percent of the U.S. population is male: <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>.

²⁹ According to the U.S. Census Bureau, as of 2013, 48 percent of the male U.S. population was never married, was divorced, or was widowed: http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP02&src=pt /productview.xhtml?pid=ACS_10_3YR_S1201&prodType=table.

³⁰ According to the Bureau of Labor Statistics, the annual average unemployment rate for U.S. males between 1975 and 2015 ranged from 4.1 percent to 10.5 percent: <http://www.bls.gov/cps/cpsaat02.htm>.

³¹ According to the Brennan Center for Justice, as of 2015, between 70 million (22 percent) and 100 million (31 percent) Americans had criminal records. Since not all of those who have records have been convicted of crimes, the percentage of Americans with criminal convictions would be less than 31 percent. Friedman, Matthew. "Just Facts: As Many Americans Have Criminal Records as College Diplomas." New York University School of Law: Brennan Center for Justice. November 17, 2016.

³² According to the U.S. Census Bureau, as of 2012, approximately 27 percent of U.S. households included only one person: <http://www.census.gov/prod/2013pubs/p20-570.pdf>.

³³ According to the U.S. Census Bureau, as of 2014, 31.9 percent of the male U.S. population 25 years or older held at least a bachelor's degree: <https://www.census.gov/hhes/socdemo/education/data/cps/2014/tables.html>.

³⁴ According to the Centers for Disease Control and Prevention (Grohol, 2011), approximately 0.6 percent of the U.S. population will receive a diagnosis of schizophrenia during their lifetime and, according to the American Psychiatric Association (2013), approximately 0.2 percent of the U.S. population will receive a diagnosis of delusional disorder during their lifetime.

³⁵ As of 2014, approximately 13 percent of the male U.S. population was serving or had served in the military. Chalabi, Mona. "What Percentage of Americans Have Served in the Military?" FiveThirtyEight. March 19, 2015.

Fifteen additional risk factors emerged in analyses that compared both group-based and lone-actor extremists who did and did not engage in terrorism (P. James, personal communication, February 4, 2016; Jasko, LaFree, & Kruglanski, 2016; Sawyer, 2016; Smith et al., 2016). One of these risk factors was related to having a history of criminal violence; one was related to having been involved with a gang or delinquent peers; three were related to interactions with extremist individuals and/or ideologies (having a friend who is a terrorist, being a member of a terrorist group for an extended period of time, and having a deep commitment to an extremist ideology); four were related to individuals' standing in professional, educational, and/or economic domains (having a sporadic work history, having less education, having a lower social economic status, and failing to achieve one's aspirations); and four were related to potential problems in the personal relationship domain (having trouble in romantic relationships, having trouble in platonic relationships, being abused as an adult, and being distant from one's family). In addition, being younger and being a lone actor (versus a group-based extremist) were also associated with a higher likelihood of engaging or attempting to engage in terrorism.³⁶

These findings once again suggest that, when relevant to a particular case, prevention and intervention efforts might benefit from focusing on improving individuals' employment or educational prospects, thus increasing their ability to

contribute to society in a positive manner as well as their ability to develop and sustain positive personal relationships with nonextremists and nondelinquent peers. They also suggest a role for addressing individuals' extremist ideologies in prevention and intervention efforts.

Finally, five potential risk factors were found in studies that focused on only lone-actor terrorists. These included living alone, which is likely related to being single and socially isolated, and having at least a bachelor's degree, which may point to a potential difference in the relationship between education and engaging in terrorism among group-based versus lone-actor terrorists. In addition, being male was associated with engaging or attempting to engage in terrorism among lone actors, which seems consistent with the finding that males are generally more likely than females to engage in homicide (U.S. Department of Justice, 2011).³⁷ All three of these risk factors were more prevalent among lone-actor terrorists than among members of the general U.S. population. Finally, two other potential risk factors were common among lone-actor terrorists but were not identified based on comparisons with individuals who did not engage or attempt to engage in terrorism and, thus, the findings are more tentative. These included having personal and political grievances and having an enabler, for example, an individual who unwittingly assists in planning an attack or provides the inspiration for it (Hamm & Spaaij, 2015a). Taken together, these findings

³⁶ There was also some evidence that having radicalized, at least in part, in prison was associated with engaging in terrorism in the analyses that included both group-based and lone actors, but because of the difficulty in assessing whether this was due, in part or in whole, to having a criminal history, having interactions with other terrorists, or something else, this potential risk factor is not included in the discussion.

³⁷ Although there was no overall relationship between being male and engaging or attempting to engage in terrorism in the analyses that included both group-based and lone-actor extremists, the University of Arkansas team found that being male was a risk factor for engaging or attempting to engage in terrorism among those who embraced certain groups or ideologies (e.g., those associated with al-Qa'ida) and that being female was a risk factor for engaging or attempting to engage in terrorism among those who embraced other groups or ideologies (e.g., environmental terrorism).

Table 4: Potential Indicators Associated With Engaging or Attempting to Engage in Terrorism Among Lone-Actor Terrorists in the U.S.

Potential Indicator (Prevalence Among Lone Actors)	Identified By
Others Are Aware of Individual's Grievance (80%)	University of Massachusetts Lowell
Others Are Aware of Individual's Extremist Ideology (77%)	University of Massachusetts Lowell
Broadcasting Intent (76%)	Indiana State University
Expressing a Desire to Hurt Others (69%)	University of Massachusetts Lowell
Producing Public Statements About Extremist Ideology or Grievance (59%)	University of Massachusetts Lowell
Verbalizing Intent to Family or Friends (59%)	University of Massachusetts Lowell
Stockpiling Weapons (52%)	University of Massachusetts Lowell

may underline the importance of paying attention to individuals' social relationships, as well as understanding their grievances, in prevention and intervention programs.

Potential Indicators

To date, one potential indicator³⁸ has been associated with engaging or attempting to engage in terrorism among both group-based and lone-actor extremists: specifically, individuals who attended more extremist group meetings were more likely to engage or attempt to engage in terrorism. This finding was based on an analysis that included a comparison group of extremists who did not engage or attempt to engage in terrorism (Smith et al., 2016).³⁹

Potential indicators associated with engaging or attempting to engage in terrorism among lone-actor extremists are displayed in Table 4 (Hamm & Spaaij, 2015a; Hamm & Spaaij, 2015b; Horgan et al., 2016). None of these was based on analyses that compared individuals who did and did not engage in terrorism and, thus, these findings should be considered tentative.

Although there was no overlap in the potential indicators identified in the research that included (1) both group-based and lone-actor extremists and (2) only lone-actor terrorists, both of the projects that included only lone-actor terrorists found that individuals who engaged or attempted to engage in terrorism tended to broadcast or verbalize their intent to do so beforehand. This seems to be an important finding as it implies that many lone-actor terrorists may provide advance warnings of their intentions to commit terrorism; and, if these warnings are taken seriously, there may be the potential to stop their attacks before they occur. It is also notable that one of the studies found that lone actors verbalized their intent specifically to family and friends, meaning that it may be those closest to these individuals who are best placed to observe this potential indicator.

Other potential indicators included individuals actively conveying information about their grievances, extremist ideologies, or desires to hurt others, as well as others being aware of these lone actors' grievances and extremist ideologies. Again,

³⁸ Again, an indicator may help to assess whether a behavior is actually occurring.

³⁹ The 465 individuals in the University of Arkansas project for whom data on both the legal and temporal/geospatial aspects of their cases were available were included in this analysis.

this suggests that both the individuals themselves and those who surround them may provide valuable information that is potentially related to these individuals engaging or attempting to engage in terrorism. It is, however, important to keep in mind that these findings did not involve a comparison group and, as a consequence, it may be the case that there are more individuals who convey similar information about their grievances, extremist ideologies, and desires to hurt others but who do not go on to engage or attempt to engage in terrorism. Thus, while it arguably is important to be aware of these types of concerning statements, they should not be assumed to be either necessary or sufficient evidence that the individuals who produce them will follow their words with action.

Finally, two of the potential indicators identified in NIJ-sponsored research involved activities possibly related to planning and preparing to engage in terrorism. One of these activities — attending more extremist group meetings — was identified when comparing group-based and lone-actor extremists who did and did not engage or attempt to engage in terrorism. The other — stockpiling weapons — was found only among lone-actor terrorists and was not based on an analysis that included a comparison group. Because individuals may try to hide these behaviors from those who are close to them, it may be the case that others in the community are better positioned to observe them.

Comparisons With Existing Risk Assessment Instruments and Methods

Various instruments and methods have been developed to assess individuals' risks of engaging in different types of illegal activity and violence, and three of these — the Extremist Risk Guidelines (Lloyd & Dean, 2015); the Violent Extremist Risk Assessment, Consultative Version 2 (Pressman & Flockton, 2012); and the Historical Clinical Risk Management-20, Version 3 (Douglas et al., 2013) — will be discussed below.⁴⁰ While there are important differences between these instruments and methods, all three rely on structured professional judgment, meaning that they provide guidance on which risk factors or indicators⁴¹ to consider when making an assessment but do not rule out including others or dictate how these risk factors or indicators should be weighed (Monahan, 2012). Rather, it is assumed that each of these instruments or methods will be used by individuals who possess the expertise and experience to identify both the presence of risk factors and their relevance to a particular individual.⁴²

After briefly describing these instruments and methods, this paper examines similarities between the risk factors and/or indicators they highlight and the potential risk factors and indicators identified in NIJ-sponsored research. For the purpose of these comparisons, it should be kept in mind that it is often the case that specific

⁴⁰ The Multi-level Guidelines (MLG; Cook, Hart, & Kropp, 2013) have also been developed to assess the risk of group-based violence perpetrated by organized criminal networks, gangs, and terrorist groups, among others. Because the MLG was undergoing revision at the time of writing, the risk factors it includes will be discussed in a future paper.

⁴¹ These instruments and methods also identify protective factors that should be considered in risk assessments. These will be discussed, along with relevant findings from NIJ-sponsored research, in a future paper.

⁴² It is also assumed that identifying risk factors and indicators is only one component of a larger process that includes both risk assessment and management. This paper, however, focuses on this component.

risk factors or indicators included in the risk assessment instruments or methods were not analyzed in NIJ-sponsored research. One of the key reasons for this is that using the risk assessment instruments and methods discussed below often relies at least in part on the ability to conduct interviews with the individual who is being assessed. As the NIJ-sponsored studies generally analyzed information available in unclassified, secondary sources (e.g., newspaper reports, court records, biographies, government sources), information on certain risk factors (e.g., underlying motivations and thought patterns) was not always available. As a consequence, a lack of findings related to these factors does not mean that no relationships were found in NIJ-sponsored research but rather that the relationships were not tested. When no relationship or a negative relationship between a specific risk factor or indicator and engaging or attempting to engage in terrorism was found, this is indicated.

Extremist Risk Guidelines (ERG 22+)

The ERG 22+ methodology was developed by the United Kingdom's National Offender Management Service (NOMS) in order to assess the risk posed by extremist offenders and facilitate the development of targeted interventions aimed at managing this risk (Lloyd & Dean, 2015).⁴³ Based on casework with offenders and relevant social and behavioral science theory and research, NOMS identified 22 general risk factors for engaging in extremist crime (which includes but is not limited to terrorism). These factors are related to three dimensions: extremist engagement (the process by which individuals become involved with an extremist group, cause, or ideology); extremist intent (the mindset associated with the readiness to commit an

extremist offense); and extremist capability (the ability to perform the offense) (Lloyd & Dean, 2015). Individuals are not assigned scores based on the ERG 22+; rather, the guidelines are used to suggest factors that may play a role in extremist offending.

Table 5 lists the 22 factors included in the ERG 22+ and compares them with the potential risk factors and indicators identified in NIJ-sponsored research. As can be seen, the risk factors and/or indicators associated with attempting or engaging in terrorism identified in NIJ-sponsored research overlap to at least some degree with 10 of the risk factors for engaging in extremist crime included in the ERG 22+. These include risk factors related to expressing grievances; having family or friends who support extremist offending; having mental health issues; over-identifying with a group or cause; having attitudes that justify offending; supporting harmful means to achieving a specific end; supporting a harmful end; having individual knowledge, skills, and competencies; having access to networks, funding, and equipment; and having a criminal history.

The amount of overlap is particularly interesting given that the ERG 22+ includes risk factors for engaging in extremist crimes that do not necessarily reach the threshold of engaging or attempting to engage in terrorism, which was the focus of the NIJ-sponsored findings discussed above. (In fact, in many cases, individuals who engaged in extremist crimes that did not reach this threshold were used as the comparison group in NIJ-sponsored analyses.) Future research will be needed to determine whether there are particular risk factors and indicators included in NIJ-sponsored research that can distinguish between those who do and do not engage in nonviolent extremist crimes.

⁴³ While initially developed for use with those already convicted of extremist offenses, the ERG 22+ has also informed community approaches to preventing individuals from engaging in these offenses (Lloyd & Dean, 2015).

Table 5: Comparison Between the Risk Factors Included in the ERG 22+ and the Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research

ERG 22+ Risk Factors (Relevant Dimensions Are in Parentheses)	Risk Factors Identified in NIJ-Sponsored Research (Relevant Indicators Are in Parentheses)
Need to Redress Injustice and Express Grievance (Engagement)	Having Personal and Political Grievances — Lone Actors Only (Others Aware of Grievance, Producing Public Statements About Extremist Ideology or Grievance — Both Among Lone Actors Only)
Need to Defend Against Threat (Engagement)	
Need for Identity, Meaning, Belonging (Engagement)	
Need for Status (Engagement)	
Need for Excitement, Comradeship, Adventure (Engagement)	
Need for Dominance (Engagement)	
Susceptibility to Indoctrination (Engagement)	
Political/Moral Motivation (Engagement)	
Opportunistic Involvement (Engagement)	
Family or Friends Support Extremist Offending (Engagement)	Having a Terrorist Friend*
Transitional Periods (Engagement)	
Group Influence and Control (Engagement)	
Mental Health (Engagement)	Having Psychological Issues Having Received a Diagnosis of Schizophrenia or Delusional Disorder — Lone Actors Only
Over-Identification With Group or Cause (Intent)	Having a Deep Commitment to an Extremist Ideology (Attending More Extremist Group Meetings)
Us and Them Thinking (Intent)	
Dehumanization of the Enemy (Intent)	
Attitudes That Justify Offending (Intent)	Having a Deep Commitment to an Extremist Ideology (Others Aware of Extremist Ideology, Producing Public Statements About Extremist Ideology or Grievance — Both Among Lone Actors Only)
Harmful Means to an End (Intent)	(Verbalizing Intent to Family and Friends, Broadcasting Intent — Both Among Lone Actors Only)
Harmful End Objectives (Intent)	(Expressing a Desire to Hurt Others — Lone Actors Only)
Individual Knowledge, Skills, and Competencies (Capability)	Having Military Experience
Access to Networks, Funding, Equipment (Capability)	Having an Enabler — Lone Actors Only (Stockpiling Weapons — Lone Actors Only)
Criminal History (Capability)	Having a Criminal History

* Potential risk factors and indicators that are in bold were identified based on comparisons with nonviolent extremists or the general U.S. population. (Potential risk factors and indicators identified in NIJ-sponsored research may be associated with more than one risk factor included in the ERG 22+.)

Violent Extremist Risk Assessment, Consultative Version 2 (VERA 2)

The VERA 2 is focused specifically on assessing the risk of *violent* political extremism (Pressman & Flockton, 2012). The 25 risk factors and indicators included in the tool are related to four areas — beliefs and attitudes; context and intent; history and capability; and commitment and motivation — and were identified based on research in the areas of radicalization and terrorism, collaboration with operational personnel, and feedback from experts in law enforcement, corrections, and forensic psychology. While the VERA 2 is generally intended for use after an individual has been convicted of a terrorism-related offense, its developers state that it can also be used to support investigative procedures (Pressman & Flockton, 2012). In all cases, however, it is recommended as a supplement, not replacement, for existing risk assessment instruments and procedures. Table 6 lists the 25 risk factors and indicators included in the VERA 2 and compares them with the potential risk factors and indicators identified in NIJ-sponsored research.

As can be seen in Table 6, the risk factors and/or indicators associated with attempting or engaging in terrorism identified in NIJ-sponsored research overlap to at least some degree with nine of the risk factors and indicators included in the VERA 2. Similar to the comparison with the ERG 22+, these include risk factors and indicators related to having grievances; having personal contact with terrorists (family or friends supporting extremist offending in the ERG 22+); having a commitment to a group or group ideology (over-identifying with a group or cause in the ERG 22+); having attitudes that justify violence (offending in the ERG 22+); expressing the intent to act violently or in a harmful manner;

having tactical, paramilitary, or explosives training (individual knowledge, skills, and competencies in the ERG 22+); and having access to funds, resources, and organizational skills (networks, funding, and equipment in the ERG 22+). Unlike the ERG 22+, the VERA 2 also includes risk factors associated with having family members or friends involved in violent action and having a prior criminal history of violence. Interestingly, the risk factor related to having mental health issues is not included in the VERA 2, although it was identified as a potential risk factor for engaging or attempting to engage in terrorism in NIJ-sponsored research and is included in the ERG 22+.

The Historical Clinical Risk Management-20, Version 3 (HCR-20^{v3})

The HCR-20^{v3} is a method used to assess the risk of violence among adults and is most frequently applied within correctional, forensic, and general or civil psychiatric settings (Douglas et al., 2013). Since the first version of the method was released in 1995, numerous studies have been conducted to evaluate its validity, and the most recent version of the HCR-20, released in 2013, incorporates revisions based on additional research on the risk factors associated with violence as well as advances in the field of risk assessment and management. The 20 items identified in the HCR-20^{v3} include historical factors (related to individuals' past behaviors and experiences), clinical factors (related to their psychosocial functioning, mental health, and behaviors in the more recent past, e.g., in the past six months), and risk management factors (related to areas of future functioning and adjustment) (Douglas et al., 2013). The method provides guidelines for evaluating both the presence of these 20 risk factors and their relevance to a particular individual.

Table 6: Comparison Between the Risk Factors and Indicators Included in the VERA 2 and the Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research

VERA 2 Risk Factors and Indicators (Relevant Areas Are in Parentheses)	Risk Factors Identified in NIJ-Sponsored Research (Relevant Indicators Are in Parentheses)
Commitment to Ideology Justifying Violence (Beliefs & Attitudes)	Having a Deep Commitment to an Extremist Ideology* (Others Aware of Extremist Ideology, Producing Public Statements About Extremist Ideology or Grievance — Both Among Lone Actors Only)
Victim of Injustice and Grievances (Beliefs & Attitudes)	Having Personal and Political Grievances — Lone Actors Only (Others Aware of Grievance — Lone Actors Only)
Dehumanization/Demonization of Identified Targets of Injustice (Beliefs & Attitudes)	
Rejection of Democratic Society and Values (Beliefs & Attitudes)	
Feelings of Hate, Frustration, Persecution, Alienation (Beliefs & Attitudes)	
Hostility to National Collective Identity (Beliefs & Attitudes)	
Lack of Empathy, Understanding Outside of Own Group (Beliefs & Attitudes)	
Seeker, Consumer, Developer of Extremist Materials (Context & Intent)	
Identification of Target (Person, Group, Place) in Response to Perceived Injustice (Context & Intent)	
Personal Contact With Violent Extremists (Context & Intent)	Being a Member of a Terrorist Group for an Extended Period of Time Having a Terrorist Friend (Attending More Extremist Group Meetings)
Anger and Expressed Intent to Act Violently (Context & Intent)	(Expressing a Desire to Hurt Others, Verbalizing Intent to Family and Friends, Broadcasting Intent — All Among Lone Actors Only)
Expressed Desire to Die for Cause or Martyrdom (Context & Intent)	
Expressed Intent to Plan, Prepare Violent Action (Context & Intent)	
Susceptible to Influence, Authority, Indoctrination (Context & Intent)	
Early Exposure to Pro-Violence Militant Ideology (History & Capability)	
Network (Family, Friends) Involved in Violent Action (History & Capability)	Having a Terrorist Friend
Prior Criminal History of Violence (History & Capability)	Having a History of Criminal Violence
Tactical, Paramilitary, Explosives Training (History & Capability)	Having Military Experience
Extremist Ideological Training (History & Capability)	
Access to Funds, Resources, Organizational Skills (History & Capability)	Having an Enabler — Lone Actors Only (Stockpiling Weapons — Lone Actors Only)
Glorification of Violent Action (Commitment & Motivation)	
Driven by Criminal Opportunism (Commitment & Motivation)	

* Potential risk factors and indicators that are in bold were identified based on comparisons with nonviolent extremists or the general U.S. population. (Potential risk factors and indicators identified in NIJ-sponsored research may be associated with more than one risk factor or indicator included in the VERA 2.)

Table 6: Comparison Between the Risk Factors and Indicators Included in the VERA 2 and the Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research (continued)

VERA 2 Risk Factors and Indicators (Relevant Areas Are in Parentheses)	Risk Factors Identified in NIJ-Sponsored Research (Relevant Indicators Are in Parentheses)
Commitment to Group, Group Ideology (Commitment & Motivation)	Having a Deep Commitment to an Extremist Ideology (Attending More Extremist Group Meetings)
Driven by Moral Imperative, Moral Superiority (Commitment & Motivation)	
Driven by Excitement, Adventure (Commitment & Motivation)	

Table 7 lists the 20 risk factors for violence included in the HCR-20^{v3} and compares them with the potential risk factors and indicators associated with engaging or attempting to engage in terrorism in NIJ-sponsored research. When the exact timeframe in the past during which individuals experienced or were exposed to specific risk factors was not clear, these risk factors were considered historical factors as opposed to clinical factors. In two cases, however, risk factors that individuals were experiencing or exposed to at the time they engaged or attempted to engage in terrorism were considered future risk factors based on the assumption that (1) risk assessments would have been conducted before individuals attempted to engage in terrorism and (2) those assessing the potential risk of violence would have viewed these factors as potentially impacting the individuals' future functioning and adjustment.

As can be seen in Table 7, the risk factors and/or indicators associated with attempting or engaging in terrorism identified in NIJ-sponsored research overlap to at least some degree with nine of the risk factors for engaging in violence included in the HCR-20^{v3}. Similar to the comparison with the ERG 22+, these include risk factors related to having a major mental disorder (mental health issues in

the ERG 22+) and a history of engaging in nonviolent antisocial behavior (crime in the ERG 22+). Similar to the comparison with the VERA 2, these include the risk factor related to having a history of problems with violence (a prior criminal history of violence in the VERA 2). Similar to the comparisons with both the ERG 22+ and VERA 2, these include risk factors related to having attitudes that justify violence (offending in the ERG 22+).

What is perhaps most striking, however, is that five of the risk factors included in the HCR-20^{v3} that were also found in research sponsored by NIJ were not included in either the ERG 22+ or VERA 2, both of which were developed to assess the risk of criminal behavior among extremists. Specifically, risk factors related to having a history of problems with relationships, employment, and traumatic experiences, as well as having future problems with one's living situation and personal support, were all associated with the likelihood of engaging in violence in the HCR-20^{v3} and among terrorists examined in NIJ-sponsored research.

Overall Comparison

While the previous three subsections examine how the potential risk factors and indicators identified in NIJ-sponsored

Table 7: Comparison Between the Risk Factors Identified in the HCR-20^{v3} and the Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research

HCR-20^{v3} Risk Factors	Risk Factors Identified in NIJ-Sponsored Research (Relevant Indicators Are in Parentheses)
History of Problems With Violence	Having a History of Criminal Violence*
History of Problems With Other Antisocial Behavior	Having Been Involved With a Gang or Delinquent Peers
History of Problems With Relationships	Having Trouble in Romantic Relationships Having Trouble in Platonic Relationships Having Been Abused as an Adult Being Distant From One's Family Being a Loner/Socially Isolated Having Been Involved With a Gang or Delinquent Peers Having a Terrorist Friend Having an Enabler
History of Problems With Employment	Having a Sporadic Work History Being Unemployed
History of Problems With Substance Use ⁴⁴	
History of Problems With Major Mental Disorder (psychotic, major mood, or other major disorder)	Having Received a Diagnosis of Schizophrenia or Delusional Disorder — Lone Actors Only
History of Problems With Personality Disorder	
History of Problems With Traumatic Experiences	Having Been Abused as an Adult
History of Problems With Violent Attitudes	Having a Deep Commitment to an Extremist Ideology (Expressing a Desire to Hurt Others, Others Aware of Extremist Ideology, Producing Public Statements About Extremist Ideology or Grievance, Verbalizing Intent to Family and Friends, Broadcasting Intent — All Among Lone Actors Only)
History of Problems With Treatment or Supervision Response	
Recent Problems With Insight (mental disorder, violence risk, need for treatment)	
Recent Problems With Violent Ideation or Intent	
Recent Problems With Symptoms of Major Mental Disorder (psychotic, major mood, or other major disorder)	
Recent Problems With Instability (affective, behavioral, cognitive)	
Recent Problems With Treatment or Supervision Response	
Future Problems With Professional Services and Plans	
Future Problems With Living Situation	Being Unemployed
Future Problems With Personal Support	Being Distant From One's Family Being a Loner/Socially Isolated Having a Terrorist Friend Having an Enabler
Future Problems With Treatment or Supervision Response	
Future Problems With Stress or Coping	

* Potential risk factors and indicators that are in bold were identified based on comparisons with nonviolent extremists or the general U.S. population. (Potential risk factors and indicators identified in NIJ-sponsored research may be associated with more than one risk factor included in the HCR-20^{v3}.)

⁴⁴ Research conducted by START found that having a substance use problem was not associated with an increased likelihood that individuals engaged or attempted to engage in terrorism (P. James, personal communication, February 4, 2016).

research map onto the risk factors and indicators included in the ERG 22+, VERA 2, and HCR-20^{v3}, this subsection does the reverse; i.e., it maps the types of risk factors and indicators included in these instruments and methods onto those identified in NIJ-sponsored research. In this manner, it is possible to identify categories of potential risk factors or indicators that are not included in these instruments and methods but that may need to be considered when assessing the risk that an individual may engage or attempt to engage in terrorism.

As the first step in this process, the potential risk factors and indicators identified in NIJ-sponsored research were grouped into 10 broader categories. These included having (1) a past history of violence; (2) a past history of criminal activity or delinquency; (3) extremist associates; (4) an extremist ideology and/or grievances; (5) the intent to

commit violence; (6) skills and resources for committing violence; (7) mental health issues; (8) trouble in professional, educational, and economic domains; (9) trouble in relationship domains; and (10) specific demographic characteristics.⁴⁵ Table 8 lists the 10 categories of potential risk factors and indicators identified in NIJ-sponsored research and indicates whether they are included in the three risk assessment instruments and methods discussed above.⁴⁶

As can be seen in Table 8, nine out of the 10 categories of potential risk factors and indicators associated with engaging or attempting to engage in terrorism in NIJ-sponsored research are included in at least one of the existing risk assessment instruments or methods, the exception being specific demographic characteristics. Six of the categories are included in the HCR-20^{v3}, which was developed to assess the risk of individuals engaging in general

Table 8: Comparison Between Categories of Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research and Those Included in Existing Risk Assessment Instruments and Methods

Categories of Potential Risk Factors and Indicators			
Category	ERG 22+	VERA 2	HCR-20^{v3}
Past History of Violence		X	X
Past History of Criminal Activity and Delinquency	X		X
Extremist Associates	X	X	
Extremist Ideology and/or Grievances	X	X	
Intent to Commit Violence		X	X
Skills and Resources for Committing Violence	X	X	
Mental Health Issues	X		X
Trouble in Professional, Educational, and Economic Domains			X
Trouble in Relationship Domains			X
Specific Demographic Characteristics			

⁴⁵ The individual risk factors and indicators associated with each of these broader categories are identified in the Appendix.

⁴⁶ In some cases, an individual risk factor or indicator associated with a particular category may map onto one of the risk factors included in the ERG 22+, VERA 2, or HCR-20^{v3}, but the category itself may not be present in the instrument or method. For example, “having a violent extremist friend” mapped onto the “history of problems with relationships” and “future problems with personal support” risk factors in the HCR-20^{v3} — both of which include references to relationships with individuals who exert a negative or antisocial influence — but a category of risk factors and indicators associated specifically with having “extremist associates” was not included in the HCR-20^{v3}.

violence, and five are included in each of the instruments and methods developed specifically to assess the risk of individuals engaging in extremist crime and/or violence (the ERG 22+ and VERA 2).

While there is clear overlap in the categories of risk factors and indicators identified in NIJ-sponsored research and those included in the ERG 22+, VERA 2, and HCR-20^{v3}, there are also some distinctions based on whether the instruments and methods are focused on assessing the risk of general violence versus extremist crime and/or terrorism. On the one hand, only the HCR-20^{v3} includes risk factors and indicators related to having (1) trouble in professional, educational, and economic domains and (2) trouble in relationship domains, both of which were found to be associated with engaging or attempting to engage in terrorism in NIJ-sponsored research. On the other hand, only the ERG 22+ and VERA 2 include risk factors and indicators related to having (1) extremist associates, (2) an extremist ideology and/or grievances, and (3) skills and resources for committing violence, which were also found to be associated with engaging or attempting to engage in terrorism in NIJ-sponsored research. Overall, this suggests that while many of the risk factors and indicators associated with engaging or attempting to engage in terrorism may be similar to those associated with engaging in general violence, other risk factors and indicators may be unique to those involved in extremist-related crime and terrorism.

Overview of Findings and Next Steps

Before summarizing the overall findings from the NIJ-sponsored research discussed in this paper, it is important to reiterate some of its limitations. For example, it is likely the case that some of the individuals included in the analyses conducted by these

four NIJ-sponsored project teams overlap, and that, because of this, similarities between the projects' findings may be due in part to the fact that they analyzed some of the same individuals. There are also issues related to missing data and the possibility that some of the findings presented would not be the same if data were available for all of the individuals included in the projects. Further, even when data were available for individuals, it may be the case that some of the information collected was not accurate. Likewise, assessing whether individuals have experienced or been exposed to certain risk factors may require subjective judgments on the part of researchers, and it is possible that different research teams might reach different conclusions. Finally, once again, it is important to note that not all individuals who experience or are exposed to risk factors — or exhibit indicators — associated with engaging or attempting to engage in terrorism go on to do so. Radicalization to terrorism is a complex process, and research that analyzes samples of terrorists can help to identify characteristics, experiences, and behaviors that are generally associated with engaging or attempting to engage in terrorism, but further investigation is required to determine whether these characteristics, experiences, and behaviors are relevant in the case of a particular individual.

Still, keeping these limitations in mind, the research sponsored by NIJ has made a strong contribution by identifying numerous risk factors and indicators potentially associated with engaging or attempting to engage in terrorism. Importantly, in many cases these findings emerged from analyses that compared extremists who engaged or attempted to engage in terrorism with extremists who did not (or with the general U.S. population); and, as a consequence, there is evidence that these potential risk factors and indicators may help practitioners to

distinguish between individuals who are more and less likely to attempt or conduct a terrorist attack, as well as provide some foundation for the development of prevention and intervention programs.

Several potential risk factors that may increase the likelihood that an individual will engage or attempt to engage in terrorism were found in research that included group-based and lone-actor extremists, as well as in at least one study that included only lone-actor terrorists. These risk factors (all of which were identified based on comparisons between individuals who did and did not engage in these behaviors) include having a criminal history, having mental health issues (or having received a diagnosis of schizophrenia or delusional disorder among lone actors), being unemployed, being single, being a loner/socially isolated, and having military experience. These findings suggest that, in cases in which these potential risk factors are present and relevant, efforts to address mental health issues, improve employment prospects or situations, and/or provide stronger social support may contribute to prevention and intervention strategies.

Potential risk factors that were found only in analyses that included both group-based and lone-actor extremists — and which also included nonviolent comparison groups — related to having a history of criminal violence; having been involved with a gang or delinquent peers; being younger; being a lone actor (versus a group-based extremist); having interactions with extremist individuals and/or ideologies; having a lower standing in professional, educational, and/or economic domains; and having problems in the personal relationship domain. These again suggest that prevention efforts might benefit from focusing on improving individuals' employment or educational prospects and/or their ability to develop and sustain positive personal relationships with nonextremists and nondelinquent peers.

They also suggest a role for addressing individuals' extremist ideologies in prevention and intervention efforts.

Finally, a few potential risk factors were found only in analyses of lone-actor terrorists. Being male, living alone, and having at least a bachelor's degree were all more prevalent among lone-actor terrorists than among the general U.S. population. Two other potential risk factors — having personal and political grievances and having an enabler — were not identified based on comparisons with individuals who did not engage or attempt to engage in terrorism and, thus, are considered more tentative. Taken together, these findings again seem to underline the importance of paying attention to individuals' social relationships in prevention and intervention programs. They also suggest that understanding individuals' personal and ideological grievances may be important.

Compared with risk factors, fewer potential indicators associated with engaging or attempting to engage in terrorism were identified in NIJ-sponsored research — and only one of these was based on an analysis that included a nonviolent comparison group. The findings suggest that those who are closest to an individual may be well positioned to observe some of the potential warning signs that he or she may be moving toward terrorism. Specifically, both of the projects that included only lone-actor terrorists found that individuals who engaged or attempted to engage in terrorism tended to broadcast or verbalize their intent to do so beforehand, and in one analysis they tended to verbalize their intent specifically to family and friends. Other potential indicators included individuals (and specifically lone actors) actively conveying information about their grievances, extremist ideologies, or desires to hurt others, as well as others being aware of their grievances and extremist ideologies. It is, however, important to keep in mind that these findings did not involve a comparison group; and, as a consequence,

it may be the case that there are more individuals who convey similar information about their grievances, extremist ideologies, and desires to hurt others but who do not go on to engage or attempt to engage in terrorism.

Finally, two other potential indicators associated with engaging or attempting to engage in terrorism included attending more extremist group meetings (based on an analysis that included a nonviolent comparison group) and stockpiling weapons. In both of these cases, individuals may try to hide these behaviors from those who are close to them, and thus, it may be that others in the community are better positioned to observe them.

This paper also found substantial overlap between the risk factors and indicators identified in NIJ-sponsored research and risk factors and/or indicators included in existing instruments and methods developed to assess the risk of individuals engaging in extremist crime (the ERG 22+), extremist violence (the VERA 2), and general violence (the HCR-20^{v3}). Specifically, potential risk factors and/or indicators identified in NIJ-sponsored research overlapped to at least some degree with 10 of the risk factors for engaging in extremist crime included in the ERG 22+, nine of the risk factors and indicators associated with engaging in extremist violence included in the VERA 2, and nine of the risk factors for engaging in general violence included in the HCR-20^{v3}.

Looking more broadly at the general categories of potential risk factors and indicators identified in NIJ-sponsored research, nine out of 10 were included in at least one of the existing risk assessment instruments or methods. These included categories of potential risk factors and indicators related to having (1) a past history of violence; (2) a past history of criminal activity or delinquency; (3) extremist associates; (4) an extremist

ideology and/or grievances; (5) the intent to commit violence; (6) skills and resources for committing violence; (7) mental health issues; (8) trouble in professional, educational, and economic domains; and (9) trouble in relationship domains. There were, however, some distinctions in the categories included based on whether the instruments and methods focused on assessing the risk of general violence (the HCR-20^{v3}) or extremist crime and/or violence (the ERG 22+ and VERA 2). On the one hand, only the HCR-20^{v3} includes risk factors and indicators related to having (1) trouble in professional, educational, and economic domains and (2) trouble in relationship domains, both of which were found to be associated with engaging or attempting to engage in terrorism in NIJ-sponsored research. On the other hand, only the ERG 22+ and VERA 2 include risk factors and indicators related to having (1) extremist associates, (2) an extremist ideology and/or grievances, and (3) skills and resources for committing violence, which were also identified as important categories of risk factors and indicators in NIJ-sponsored research.

These findings suggest that many of the potential risk factors and indicators associated with engaging in terrorism may not be that different from those associated with engaging in violence more generally and, thus, programs developed to mitigate the risk of violence among perpetrators who are not motivated by extremist ideologies may have relevance to those who are. They also suggest that some risk factors and indicators may indeed be different for those who commit terrorism, such as those related to having extremist associates, an extremist ideology and/or grievances, and skills and resources for committing violence. Consequently, all of these factors may need to be considered when assessing the risk that an individual will engage or attempt to engage in terrorism and when developing prevention and intervention efforts.

Overall, the research sponsored to date by NIJ has provided important insights into the potential risk factors and indicators associated with engaging or attempting to engage in terrorism, but much work still remains to be done. First, although some of the projects reviewed in this paper involved comparing individuals who engaged or attempted to engage in terrorism with those who did not, other projects did not include nonviolent comparison groups. As including such groups is a necessary condition for identifying valid risk factors and indicators, as well as protective factors, conducting more research that includes relevant comparison groups should be a priority. Further, systematically collecting and cataloguing population-level data related to potential risk factors, protective factors, and indicators would aid in this endeavor.

Second, although the analyses discussed in this paper included terrorists who embraced a variety of ideologies, additional research needs to be conducted to examine whether particular risk factors and indicators associated with engaging or attempting to engage in violence vary by extremist ideology. There is already some evidence that this may be the case for gender, with the University of Arkansas team finding that being male was a risk factor for engaging or attempting to engage in terrorism among those who embraced certain ideologies (e.g., those associated with al-Qa'ida) and that being female was a risk factor for engaging or attempting to engage in terrorism among those who embraced others (e.g., environmental terrorism). Future research will need to explore additional risk factors and indicators in order to inform whether different risk assessment instruments and methods, as well as prevention and intervention programs, may need to be developed for individuals who hold different extremist ideologies.

Third, in both of the studies that included only lone-actor terrorists, there was evidence that potential risk factors and indicators associated with engaging in violence may change over time. For example, when comparing lone-actor terrorists and solo mass murderers who committed attacks between 1990 and 2005 with those who committed attacks between 2006 and 2013, the University of Massachusetts Lowell team found significant differences in these individuals' characteristics, experiences, and behaviors, depending on the timeframe in which they acted (Horgan et al., 2016). These differences included the tendency for fewer individuals who committed attacks between 2006 and 2013 to have military experience, verbalize their intent to family and friends, express a desire to hurt others, or have others aware of their grievances. Although the inclusion of solo mass murderers in this analysis makes it difficult to assess how these findings specifically relate to lone-actor terrorists, they do highlight the need for further research on how risk factors and indicators associated with engaging or attempting to engage in terrorism may vary based on the time period during which the behavior occurs. They also suggest that any risk assessment instruments and methods will need to be periodically reviewed and updated, based on the latest data.

Fourth, while this paper focused on risk factors and indicators associated with engaging or attempting to engage in terrorism, it is also important to examine risk factors and indicators associated with engaging in other behaviors of concern (e.g., extremist crime more generally, such as that assessed by the ERG 22+). Further, research on risk factors and indicators associated with noncriminal behaviors such as adopting an extremist belief system or joining an extremist group may be of value to practitioners focused on early intervention efforts. Although some of the

risk factors and indicators associated with these different behaviors may overlap, it is likely that others do not and that it may be necessary to develop risk assessment instruments and methods focused on specific behaviors of concern and/or the various roles that individuals can play in terrorist organizations (e.g., Nesser, 2006; Victoroff, 2005).

Fifth, examining how risk factors interact and combine with each other — as well as with protective factors — is an important area for future research. For example, NIJ-sponsored research conducted by Brandeis University⁴⁷ has found that specific “triads,” or sets of three sequential indicators, were present in significant percentages of the timelines of U.S. homegrown terrorists inspired by or affiliated with al-Qa’ida (Klausen, 2016). Reports from the individual research projects discussed in this paper also begin to take on the task of looking at how risk factors and indicators combine, but more work, particularly in the area of protective factors, remains to be done. Further, in doing this work, it will be

important to ensure that the implications of the findings for developing risk assessment tools and methods, as well as prevention and intervention programs, are clearly articulated.

Sixth, many of the risk factors and indicators included in the existing risk assessment instruments and methods discussed above were not examined in NIJ-sponsored research. Although in some cases these risk factors and indicators may not have been analyzed because of a different focus on the part of the research teams, in some cases, they could not be analyzed because the teams did not have access to the type of data necessary to do so (e.g., interview data). Important findings can come from research based on secondary analysis, as this paper has sought to demonstrate. However, only when these findings can be supplemented with those based on interviews and other primary sources will it be possible to develop truly evidence-based risk assessment instruments and methods.

⁴⁷ The projects “The Role of Social Networks in the Evolution of Al Qaeda-inspired Violent Extremism in the United States, 1993-2013” (NIJ Award #2012-ZA-BX-0006) and “Prisoner Recollections: The Role of Internet Use and Real-Life Networks in the Early Radicalization of Islamist Terrorist Offenders” (NIJ Award #2013-ZA-BX-0005) are led by PI Jytte Klausen and conducted by a project team that includes Selene Campion, Zachary Herman, Rosanne Libretti, Nathan Needle, Giang Nguyen, Adrienne Roach, Eliane Tschaen Barbieri, and Aaron Zelin.

References

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Publishing.
- Centers for Disease Control and Prevention (2011). Mental illness surveillance among adults in the United States. *Morbidity and Mortality Weekly Report*, 60 (Supplement), 1–30.
- Cook, A., Hart, S., & Kropp, P. (2013). Multi-level guidelines for the assessment and management of group-based violence. Burnaby, Canada: Mental Health, Law, and Policy Institute, Simon Fraser University.
- Corner, E., & Gill, P. (2015). A false dichotomy? Mental illness and lone-actor terrorism. *Law and Human Behavior*, 39, 23–34.
- Corner, E., Gill, P., & Mason, O. (2015). Mental health disorders and the terrorist: A research note probing selection effects and disorder prevalence. *Studies in Conflict & Terrorism*, doi:10.1080/1057610X.2015.1120099.
- Douglas, K., et al. (2013). *HCR-20^{v3}: Assessing risk of violence – User guide*. Burnaby, Canada: Mental Health, Law, and Policy Institute, Simon Fraser University.
- Grohol, J. (2011). CDC statistics: Mental illness in the US. *Psych Central*.
- Gruenewald, J., Chermak, S., & Freilich, J. (2013). Distinguishing “loner” attacks from other domestic extremist violence. *Criminology & Public Policy*, 12, 65–91.
- Hamm, M., & Spaaij, R. (2015a). *Lone wolf terrorism in America: Using knowledge of radicalization pathways to forge prevention strategies*. Available at: <https://www.ncjrs.gov/pdffiles1/nij/grants/248691.pdf>.
- Hamm, M., & Spaaij, R. (2015b). Lone wolf terrorism in America: Radicalization and prevention. In Seri Irazola (Chair), *Lone wolves and lone actors: Patterns of radicalization*. Breakout session conducted at the conference Radicalization and Violent Extremism: Lessons Learned From Canada, the United Kingdom, and the US, Arlington, Va., July 2015.

Horgan, J., et al. (2016). *Across the universe? A comparative analysis of violent behavior and radicalization across three offender types with implications for criminal justice training and education.* Available at: <https://www.ncjrs.gov/pdffiles1/nij/grants/249937.pdf>.

Jasko, K., LaFree, G., & Kruglanski, A. (2016). *Quest for significance and violent extremism: The case of domestic radicalization.* Unpublished manuscript, University of Maryland.

Klausen, J., et al. (2016). A behavioral study of “homegrown” radicalization trajectories. *Studies in Conflict & Terrorism*, 39, 67–83, doi:10.1080/1057610X.2015.1099995.

LaFree, G. (2015) In Pete Simi (Chair), *Politically-motivated radicalization to violent extremism.* Breakout session conducted at the conference Radicalization and Violent Extremism: Lessons Learned from Canada, the United Kingdom, and the US, Arlington, Va., July 2015.

Lloyd, M., & Dean, C. (2015). The development of structured guidelines for assessing risk in extremist offenders. *Journal of Threat Assessment and Management*, 2, 40–52.

Monahan, J. (2012). The individual risk assessment of terrorism. *Psychology, Public Policy, and Law*, 18, 167–205.

Nesser, P. (2006). Jihad in Europe: Recruitment for terrorist cells in Europe. In L. Bokhari et al. (Eds.), *Paths to global jihad: Radicalisation and recruitment to terror networks* (9–21). Kjeller, Norway: Norwegian Defence Research Establishment.

Post, J., Sprinzak, E., & Denny, L. (2003). The terrorists in their own words: Interviews with 35 incarcerated Middle Eastern terrorists. *Terrorism and Political Violence*, 15, 171–184.

Pressman, E., & Flockton, J. (2012). Calibrating risk for violent political extremists and terrorists: The VERA 2 structured assessment. *The British Journal of Forensic Practice*, 14, 237–251.

Sageman, M. (2005). *Understanding terror networks.* Philadelphia: University of Pennsylvania Press.

Sawyer, J.P. (2016). *What makes them do it? Individual-level predictors of terrorism.* Unpublished manuscript, University of Maryland.

Scalora, M., et al. (2003). Risk factors for approach behavior toward the U.S. Congress. *Journal of Threat Assessment*, 2, 35–55.

Schmid, A. (2013). Radicalisation, de-radicalisation, counter-radicalisation: A conceptual discussion and literature review. ICCT research paper. The Hague: The International Center for Counter-Terrorism.

Smith, B., et al. (2016). *Identity and framing theory, precursor activity, and the radicalization process.* Available at: <https://www.ncjrs.gov/pdffiles1/nij/grants/249673.pdf>.

U.S. Department of Justice (2011). *Homicide trends in the United States: 1980–2008*. Available at: <https://www.bjs.gov/content/pub/pdf/htus8008.pdf>.

Victoroff, J. (2005). The mind of the terrorist: A review and critique of psychological approaches. *Journal of Conflict Resolution*, 49, 3–42.

Weine, S., & Ahmed, O. (2012). *Building resilience to violent extremism among Somali-Americans in Minneapolis-St. Paul*. Final report to Human Factors/Behavioral Sciences Division, Science and Technology Directorate, U.S. Department of Homeland Security. College Park, MD: START.

Willis, H., et al. (2005). *Estimating terrorism risk*. Santa Monica, CA: RAND Corporation.

Appendix

Categories of Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research

Potential Risk Factors and Indicators Identified in NIJ-Sponsored Research	
Categories	Individual Risk Factors (Relevant Indicators Are in Parentheses)
Past History of Violence	Having a History of Criminal Violence*
Past History of Criminal Activity and Delinquency	Having a Criminal History Having Been Involved With a Gang or Delinquent Peers
Extremist Associates	Having a Terrorist Friend Being a Member of a Terrorist Group for an Extended Period of Time (Attending More Extremist Group Meetings)
Extremist Ideology and/or Grievances	Having a Deep Commitment to an Extremist Ideology Having Personal & Political Grievances — All Among Lone Actors Only (Others are Aware of Extremist Ideology, Others are Aware of Grievances, Producing Public Statements About Extremist Ideology or Grievances — All Among Lone Actors Only)
Intent to Commit Violence	(Broadcasting Intent, Verbalizing Intent to Family or Friends, Expressing a Desire to Hurt Others — All Among Lone Actors Only)
Skills and Resources for Committing Violence	Having Military Experience Having an Enabler — Among Lone Actors Only (Stockpiling Weapons — Among Lone Actors Only)
Mental Health Issues	Having Psychological Issues Having Received a Diagnosis of Schizophrenia or Delusional Disorder — Among Lone Actors Only
Trouble in Professional, Educational, and Economic Domains	Being Unemployed Having a Sporadic Work History Having Less Education⁴⁸ Having a Lower Social Economic Status Failing to Achieve One's Aspirations
Trouble in Relationship Domains	Having Trouble in Romantic Relationships Having Trouble in Platonic Relationships Having Been Abused as an Adult Being Distant From One's Family Being a Loner or Socially Isolated
Specific Demographic Characteristics	Being Single Being Younger Living Alone — Among Lone Actors Only Being Male — Among Lone Actors Only

* Potential risk factors and indicators that are in bold were identified based on comparisons with nonviolent extremists or the general U.S. population.

⁴⁸ Lone-actor terrorists were actually found to have achieved a higher level of education than the average American male.