



NATIONAL INSTITUTE OF JUSTICE

# THE ROLE OF SOCIAL NETWORKS IN FACILITATING AND PREVENTING DOMESTIC RADICALIZATION

What Research Sponsored by the National Institute of Justice Tells Us

Kateira Aryaeinejad and Thomas Leo Scherer, Ph.D.

**APRIL 2024** 



U.S. Department of Justice Office of Justice Programs 810 Seventh St. N.W. Washington, DC 20531

#### Nancy La Vigne, Ph.D.

Director, National Institute of Justice

This and other publications and products of the National Institute of Justice can be found at:

#### **National Institute of Justice**

Advancing Justice Through Science NIJ.ojp.gov

#### Office of Justice Programs

Building Solutions • Supporting Communities • Advancing Justice OJP.gov

The National Institute of Justice is the research, development, and evaluation agency of the U.S. Department of Justice. NIJ's mission is to advance scientific research, development, and evaluation to enhance the administration of justice and public safety.

The National Institute of Justice is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance; the Bureau of Justice Statistics; the Office for Victims of Crime; the Office of Juvenile Justice and Delinquency Prevention; and the Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking.

Opinions or points of view expressed in this document represent a consensus of the authors and do not necessarily represent the official position, policies, terminology, or posture of the U.S. Department of Justice on domestic violent extremism. The content is not intended to create, does not create, and may not be relied upon to create any rights, substantive or procedural, enforceable at law by any party in any matter civil or criminal.

## **Executive Summary**

In 2012, the National Institute of Justice's (NIJ) Domestic Radicalization to Terrorism program began funding research on issues related to domestic radicalization and terrorism in the United States, NII-sponsored research has addressed a variety of factors that can play a role in both facilitating and preventing domestic radicalization, including social networks. This report synthesizes findings from that research, focusing on the role that peer relationships and social dynamics can play as either a gateway to or a gatekeeper preventing radicalization in the United States.

The research reviewed for this report varies notably in focus and scope. As such, it is important that neither the findings nor the lessons drawn from them be seen as generalizable across contexts. Instead, themes and similarities across research findings are highlighted here for further consideration and investigation.

One such theme is that social networks can play an important role in either facilitating or preventing radicalization and engagement with violent extremist groups and ideologies. Research reviewed suggests that this can even be true for lone actors, whose radicalization process may be impacted through online subcultures and by peers and family members.

While the perceived importance of social networks is consistent across NIJ-sponsored studies, the roles that those networks play can vary. In some cases, the absence of social bonds and a search for connection can help motivate radicalization. In other cases, the presence of certain types of social bonds and connections may actually encourage radicalization. As an individual begins to radicalize, the process can be facilitated (or less hindered) by the replacement of previous nonextremist networks with new connections to other extremists. The influence of connections to extremist leaders can be especially important, but the effect depends on additional factors.

This portfolio of research challenges any simple explanation of the role of social networks. The presence (or absence) of connections to extremist individuals may not necessarily facilitate (or impede) an individual's radicalization. While connections to radicalized family members motivated radicalization in some cases, another study found that most radicalized individuals in its sample did not cite violent, extremist family members as part of their decision to radicalize. Just as having familial connections to individuals espousing violent extremism may not lead someone to radicalize, interventions by nonextremist family members may not prevent someone from radicalizing. Similar patterns were found for constructed (e.g., nonfamilial) social networks. These findings suggest the need to shift

from asking "whether" connections influence radicalization to asking "when" connections influence radicalization. Indeed, factors such as ideological affiliation, socioeconomic status, and incarceration history may help explain when social networks can expedite disengagement from radicalization.

Looking ahead, this portfolio of NIJ-sponsored research calls attention to several promising avenues for future research exploring "when" social networks matter. First, research can further explore whether social networks act differently across different strands of violent extremism (e.g., white supremacist, jihadist, and far-left). While many of the studies cited included a comparison of various ideological motivations, further comparative research is needed to examine different elements of social network impact. Second, it is worth designing studies that look at individuals with similar social networks but differences in radicalization outcomes. Comparative analyses of individuals who mobilize to violence and those who do not may illuminate important avenues for additional research. Third, while in-person connections remain relevant to internet-assisted radicalization, evolving technologies and changes in social distancing patterns require continuous research into the role of online networks. Lastly, as some nonextremist social networks do seem to impede or prevent radicalization, research into programs that support these anti-extremist connections is important to designing effective programming.

These findings carry with them important considerations for policy and practice moving forward. Further incorporation of analytical frameworks for assessing the impact of social networks in both preventing and facilitating radicalization may assist policymakers and practitioners identify opportunities to prevent radicalization and facilitate reintegration using prosocial methods in collaboration with the community and peers of individuals who either have mobilized or are exhibiting behaviors that suggest they are mobilizing to violence. Findings also point to the importance of further addressing issues that may prevent or encourage individuals with peers exhibiting signs of radicalization to report or seek help in intervention and prevention efforts. Finally, limitations and challenges in accessing information point to the continued importance of policymaker, law enforcement, practitioner, and researcher collaboration and engagement in future efforts to understand, assess, and address radicalization and disengagement processes and the role of social networks in them.

## Introduction

In 2012, the National Institute of Justice's (NIJ) Domestic Radicalization to Terrorism program began funding research about radicalization to terrorism in the United States. These studies have since yielded valuable findings for policy and practice. As part of an ongoing effort to synthesize findings derived from this body of research as they relate to terrorism prevention efforts,<sup>2</sup> this paper examines several NIJ-funded projects, highlighting insights from research on the role of social networks in facilitating and preventing domestic radicalization.

Past research has examined and highlighted the importance of social ties and networks in radicalization processes. Families, friends, the internet, and acquaintances are commonly thought to impact an individual's trajectory from radicalization to terrorism in a variety of ways. NIJ-sponsored research adds to this body of knowledge, further illuminating the processes and interpersonal dynamics that can play a role in both preventing and facilitating radicalization. This paper summarizes emergent findings from this research, with a specific focus on how interpersonal dynamics, connections, and relationships can serve as both gatekeepers and gateways that reintegrate or radicalize individuals who are on a path to or are already convicted of terrorism-related offenses within the United States.

The paper begins with a brief overview of what constitutes a "social network" in the context of terrorism-focused literature and studies. Following this, the paper details key research sponsored by NII's domestic terrorism prevention evaluation portfolio, examining findings related to the role of these social networks in radicalization processes among individuals mobilized across violent jihadist, white supremacist, far-right, far-left, and anti-government ideologies. The paper then synthesizes those findings, examining their relevance to one another and extracting the collective insights they suggest. Finally, the paper provides an overview of limitations and remaining gaps in our understanding and recommendations for future policy and practice based on NIJ-sponsored research efforts.

# **Understanding the Role of Social Networks in Radicalization**

Radicalization is a highly individualized process that never occurs in a vacuum.<sup>3</sup> Although multiple factors influence trajectories and mobilization to terrorism, research on radicalization risks and processes has consistently examined the impact of specific factors on terrorism outcomes.<sup>4</sup> Important among these factors is the role that social networks and individual relationships can play in both motivating and protecting against individual radicalization to terrorism.5

Social networks can include "organic" (preexisting based on familial or community ties) and "constructed" (sought out with certain individuals or communities) relationships with peers, family members, colleagues, romantic partners, and broader social groupings and environments. These networks exist both on- and offline, and in many cases can overlap between virtual and in-person spaces.<sup>6</sup> Previous studies have examined the role of social networks in greater depth, exploring the influence of peers, families, and connections both on- and offline in motivating and discouraging support for terrorism.<sup>7</sup>

Over the past decade, research on social networks as they relate to mobilization to terrorism has increasingly focused on networks and connections in the online space as a potential driver of radicalization. This shift in focus to online social networks has accelerated in the wake of the so-called Islamic State's instrumentalization of online social media platforms and virtual peer-to-peer engagement to recruit and radicalize individuals across the globe. It is also reflective of increasing social activities and engagement of societies in the online space writ large. In recent years, attention has also turned to online social networks and ties between individuals engaged in far-right and white supremacist extremism.8 And while social networks may appear to be more frequently associated with the virtual space, previous and ongoing studies, (some sponsored by NII and discussed in this report) have consistently reiterated the importance of offline, in-person social connections and networks in influencing radicalization and disengagement outcomes.9

NIJ-sponsored research examining radicalization and reintegration trajectories has focused on not only the roles and dynamics associated with social networks in both online and offline spaces, 10 but also a range of ideological influences, examining their role in jihadist, white supremacist, and far-left ideologically inspired cases. In addition, NIJ-sponsored research findings shed light on how social networks can influence individual behaviors and attitudes throughout different stages of radicalization and disengagement processes. Synthesizing findings from this body of work, this report examines what NIJ-sponsored research tells us about the role of peer relationships and social dynamics in both facilitating and functioning as a protective factor within pathways to radicalization and disengagement in various contexts.

# NIJ-Sponsored Research and the **Role of Social Networks**

This section summarizes reviewed NIJ-sponsored research related to the role of social networks in domestic radicalization processes. Exhibit 1 lists NIJ-sponsored research related to understanding the role of social networks in radicalization within the United States, including three research projects that are still ongoing. Importantly, the research listed is mixed in terms of ideological focus, elements of radicalization timelines, group versus loneactor radicalization, and data collection years. The exhibit also includes an overview of main findings for projects with published results.

Exhibit 1: Overview of NIJ-Sponsored Research With Links to Social Networks

Year(s)	Grant No.	Project Title	Primary Grantee	Brief Project Summary
2012-2015	2012-ZA-BX- 0001	Lone Wolf Terrorism in America: Using Knowledge of Radicalization Pathways To Forge Prevention Strategies	Indiana State University	The team created a dataset and used case studies to test for commonalities in lone-wolf radicalization. <sup>1</sup>
2014-2021	2014-ZA-BX- 0004	An Assessment of Extremist Groups Use of Web Forums, Social Media, and Technology To Enculturate and Radicalize Individuals to Violence	Michigan State University	To understand the role of computer communication in violence promotion, enculturation, and radicalization, the team collected and analyzed postings from far-right online forums. <sup>2</sup>
2015-2019	2014-ZA-BX- 0003	Empirical Assessment of Domestic Disengagement and Deradicalization (EAD3)	University of Maryland	To understand the factors impacting individual deradicalization, disengagement, and exit from extremist ideologies, groups, and behaviors, the team examined individual cases and compared exit trajectories across ideologies. <sup>3</sup>

Exhibit 1: Overview of NIJ-Sponsored Research With Links to Social Networks (continued)

Year(s)	Grant No.	Project Title	Primary Grantee	Brief Project Summary
2015-2019	2015-ZA-BX- 0004	Social Learning and Social Control in the Off- and Online Pathways to Hate and Extremist Violence	University of Maryland	The team collected social media data on individuals who engaged in hate crimes and extremist violence to understand and compare radicalization processes.4
2017-2021	2017-ZA-CX- 0002	Dynamic, Graph-Based Risk Assessments for the Detection of Violent Extremist Radicalization Trajectories Using Large Scale Social and Behavioral Data	Colorado State University	The team expanded a dataset of individuals who engaged in jihadistinspired terrorism with additional cases and behaviors and then used it to develop a dynamic risk-assessment tool. <sup>5</sup>
2017-2022	2017-ZA-CX- 0005	Research on Domestic Radicalization to Violent Extremism: Insights From Family and Friends of Current and Former Extremists	RAND	The team examined the social structure of individuals engaged in violent extremism through interviews with their friends and family. <sup>6</sup>
2018-2021	2018-ZA-CX- 0004	Community Reporting Thresholds: Sharing Information With Authorities Concerning Terrorism Activity	University of California, Los Angeles	The team examined "intimate bystanders"—family and friends who would suspect a loved one is at risk of committing violence—and modeled their decision-making process, with recommendations to encourage identification and reporting. <sup>7</sup>
2019-ongoing	2019-ZA-CX- 0002	Exploring the Social Networks of Homegrown Violent Extremist (HVE) Military Veterans	University of Southern California	The team will examine individuals who engage in violent extremist behaviors, looking for differences among those with military experience, those without, and nonextremist military veterans and exploring the social networks of each. <sup>9</sup> Preliminary findings suggest that individuals with military experience who engage in violent extremist behaviors may already have social networks from which to recruit and connect, as they are more likely to start their own group or join their group with another. <sup>9</sup>
2019-ongoing	2019-ZA-CX- 0003	Risk and Rehabilitation: Supporting the Work of Probation Officers in the Community Reentry of Extremist Offenders	University of Maryland	The team will study the reintegration of individuals who engaged in violent extremist behaviors through data analysis, surveys of probation officers, and interviews with both probation officers and the individuals themselves. Using this information, the team will develop training modules and toolkits on reintegration. <sup>10</sup>
2019-ongoing	2019-ZA-CX- 0004	The Mobilization Puzzle: How Individual, Group, and Situational Dynamics Produce Extremist Outcomes	University of Maryland	The team will use event data to supplement existing datasets of radicalized individuals, aiding in examining and differentiating between radicalization and mobilization. <sup>11</sup>

Mark Hamm and Ramon Spaaj, "Lone Wolf Terrorism in America: Using Knowledge of Radicalization Pathways To Forge Prevention Strategies," Final report to the National Institute of Justice, award number 2012-ZA-BX-0001, February 2015, NCJ 248691, <a href="https://www.ojp.gov/pdffiles1/nij/grants/248691.pdf">https://www.ojp.gov/pdffiles1/nij/grants/248691.pdf</a>.

<sup>2.</sup> Thomas J. Holt, Steve Chermak, and Joshua D. Freilich, "Assessment of Extremist Groups Use of Web Forums, Social Media, and Technology To Enculturate and Radicalize Individuals to Violence," Final report to the National Institute of Justice, award number 2014-ZA-BX-0004. May 2021. NCI 256038, https://www.oip.gov/pdffiles1/nii/grants/256038.pdf.

award number 2014-ZA-BX-0004, May 2021, NCJ 256038, <a href="https://www.ojp.gov/pdffiles1/nij/grants/256038.pdf">https://www.ojp.gov/pdffiles1/nij/grants/256038.pdf</a>.

Michael Jensen and Pete Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)," Final report to the National Institute of Justice, award number 2014-ZA-BX-0003, January 2021, NCJ 256039, <a href="https://www.ojp.gov/pdffiles1/nij/grants/256039.pdf">https://www.ojp.gov/pdffiles1/nij/grants/256039.pdf</a>.

- Gary LaFree, "Social Learning and Social Control in the Off and Online Pathways to Hate and Extremist Violence," Final report to the National Institute of Justice, award number 2015-ZA-BX-0004, January 2021, NCJ 256024, https://www.ojp. gov/pdffiles1/nij/grants/256024.pdf
- Anura Jayasumana and Jytte Klausen, "Dynamic, Graph-Based Risk Assessments for the Detection of Violent Extremist Radicalization Trajectories Using Large Scale Social and Behavioral Data," Final report to the National Institute of Justice, award number 2017-ZA-CX-0002, January 2021, NCJ 303409, https://www.ojp.gov/pdffiles1/nij/grants/303409.pdf.
- Ryan Brown, "Research on Domestic Radicalization to Violent Extremism: Insights From Family and Friends of Current and Former Extremists," Final report to the National Institute of Justice, award number 2017-ZA-CX-0005, March 2022, NCJ 304318, https://www.ojp.gov/pdffiles1/nij/grants/304318.pdf.
- David P. Eisenman et al., "Community Reporting Thresholds: Sharing Information With Authorities Concerning Terrorism and Targeted Violence," Final report to the National Institute of Justice, award number 2018-ZA-CX-0004, March 2022, NCJ 304119, https://www.ojp.gov/pdffiles1/nij/grants/304119.pdf.
- National Institute of Justice funding award description, "Exploring the Social Networks of Homegrown Violent Extremist (HVE) Military Veterans," at the University of Southern California, award number 2019-ZA-CX-0002, https://nij.ojp.gov/ funding/awards/2019-za-cx-0002.
- Hazel R. Atuel and Carl A. Castro, "Exploring Homegrown Violent Extremism Among Military Veterans and Civilians," The Military Psychologist 36 no. 3 (2021): 10-14.
- 10. National Institute of Justice funding award description, "Risk and Rehabilitation: Supporting the Work of Probation Officers in the Community Reentry of Extremist Offenders," at the University of Maryland, College Park, award number 2019-ZA-CX-0003, https://nij.ojp.gov/funding/awards/2019-za-cx-0003; and Michael Jensen, Patrick James, and Elizabeth Yates, "Contextualizing Disengagement: How Exit Barriers Shape the Pathways Out of Far-Right Extremism in the United States," Studies in Conflict & Terrorism (2020), https://doi.org/10.1080/1057610X.2020.1759182
- 11. National Institute of Justice funding award description, "The Mobilization Puzzle: How Individual, Group, and Situational Dynamics Produce Extremist Outcomes," at the University of Maryland, College Park, award number 2019-ZA-CX-0004, https://nij.ojp.gov/funding/awards/2019-za-cx-0004.

#### **Pathways to Radicalization**

#### Social Learning and Social Control in the Off- and Online Pathways to Hate and Extremist Violence

Stemming from their research examining social aspects of individual radicalization processes,<sup>11</sup> researchers at the University of Maryland examined four case studies (categorized across combinations of jihadist/far-right and hate/antigovernment ideologies pre- and post-2005) to assess the extent to which social learning and social control theories can be adapted for more nuanced assessments of radicalization processes and the role of social networks within them.<sup>12</sup> Derived from information in the U.S. Extremist Crime Database (ECDB) and Profiles of Individual Radicalization in the United States (PIRUS) database, the findings indicated the potential utility of adopting an approach melding social learning and control theories to better understand radicalization trajectories.<sup>13</sup>

Across all four cases analyzed, the researchers found that individuals who were radicalizing had strained social bonds, often from personal setbacks just prior to radicalization. Upon engaging either in person or virtually in more extremist behaviors and rhetoric, they all weakened preexisting social bonds (except for one spouse who supported their partner's extremist beliefs). In the two cases of individuals engaged in jihadist extremist behaviors, the researchers found that despite strong ties to their families, and despite the families' efforts to address or stop their increasing radicalization, the individuals continued to radicalize and their attachment to preexisting social ties and networks weakened.<sup>14</sup>

The researchers found that the role of romantic relationships varied in terms of fostering radicalization or weakening social bonds, possibly depending on whether the partner was engaged in extremism or not. 15 Furthermore, the role of offline versus online connections varied based on the ideologic focus; offline connections seemed to play a larger role in the radicalization of hate crime extremism than anti-government extremism. In addition, the absence of social bonds may have influenced the type of violence carried out by the individual and the targets chosen. For anti-government extremists, the researchers noted that failure to join or be allowed into formalized social movements may have actually led those individuals to commit an act of violence. Conversely, among individuals with

close attachments to movement leaders, attacks on the leaders may have catalyzed those individuals to commit violent acts. In addition, those with weaker social bonds tended to carry out attacks that were more suicidal in nature.<sup>16</sup>

While the researchers noted that there was not enough information to determine whether online or in-person peer engagement is more consequential in radicalization processes, <sup>17</sup> their findings suggest that social bonds, both on- and offline, can have important impacts on radicalization trajectories and decisions to employ violence. Notably, however, social bonds are not the only factor influencing these trajectories. As suggested within the case studies, additional factors such as lack of employment and history of criminal offenses may impact and work in concert with social bonds and networks to influence radicalization outcomes.<sup>18</sup>

#### Dynamic, Graph-Based Risk Assessments for the Detection of Violent Extremist Radicalization Trajectories Using Large-Scale Social and Behavioral Data

Emerging from a Colorado State University team's collaboration with researchers at Brandeis University examining radicalization trajectories, this quasi-experiment studied individuals radicalized in the United States by Salafi-jihadist ideologies. The researchers' goal was to assess and test a four-stage model of radicalization and determine which behavioral sequence patterns may be indicative or suggest common precursors to radicalization to terrorist activity. Among other factors, the research team examined "peer group immersion" among 135 individuals (80 who had radicalized prior to 2010 and 55 who had radicalized in 2010 or after, to control for the role of the internet in radicalization processes), with findings relevant to understanding the role of social networks.<sup>19</sup>

In their analysis, the researchers found that out of the 80 individuals who had radicalized prior to 2010, just over 76% (61) were radicalized through personal contacts.<sup>20</sup> Out of the 55 who radicalized in 2010 or after, when internet access was deemed more impactful, 47% (26) radicalized through online communications.<sup>21</sup> However, the researchers also cited evidence suggesting that individuals who radicalized online often attempted to meet other individuals from the online space in person. Although the researchers noted that social media played a role in all the cases analyzed in terms of providing information and a means of communication, in most cases, interaction with peers seemed to have been the catalyst for undertaking illegal action.<sup>22</sup> Ultimately, in their assessment of groups of behaviors that may be strongly consequential in stages of radicalization, the researchers found peer immersion to be an "exceptionally salient indicator." They explained that "generally, an individual verbalizes interest in carrying out violence and terrorist action after having become immersed in a radical peer group, suggesting that peer immersion is central to the process."23

#### Pathways to Lone-Actor Terrorism

#### Lone Wolf Terrorism in America: Using Knowledge of Radicalization Pathways To Forge Prevention Strategies

In 2012, researchers at Indiana State University began NIJ-sponsored research focused on understanding radicalization pathways in lone-wolf terrorism in the United States, with important findings regarding the role of social networks in the radicalization process.<sup>24</sup> Constructing a database containing 38 cases of lone-wolf terrorism between 1940 and 2000 and 45 cases between 2001 and 2013, the researchers sought to compare factors facilitating radicalization. Findings highlighted the important distinctions between lone-wolf radicalization trajectories before and after September 11, 2001, and established important information on shared and evolving social network influences on radicalization processes. Indeed, the research team found that sources of radicalization were most commonly focused on previous extremist group membership among lone wolves prior to 9/11 and most commonly included informal social networks and institutions, both on- and offline, after 9/11.25 Additionally, the research team found a variety of dynamics common among lone-wolf actors and relevant to the influence of social networks in facilitating and offering an opportunity to prevent their radicalization to violence. As the researchers noted, nearly all lone wolves demonstrated "an affinity" or personal connection with individuals either online or in person, counter to the assumption that lone wolves are necessarily socially isolated.<sup>26</sup> Moreover, the research team found that leakage, or what they term "broadcasting intent," was "pervasive" among the individuals in their dataset; 84% of pre-9/11 lonewolf actors and 76% of post-9/11 lone-wolf actors communicated information about their radicalization and intent to commit terrorist acts to social circles and audiences both onand offline.27

#### An Assessment of Extremist Groups' Use of Web Forums, Social Media, and Technology To Enculturate and Radicalize Individuals to Violence

A team at Michigan State University<sup>28</sup> carried out additional efforts examining the applicability of the Best and Luckenbill model of social organization<sup>29</sup> in examining and adding further nuance to the role of social ties and networks in individual pathways to radicalization.<sup>30</sup> Using qualitative analysis and information drawn from the ECDB, American Terrorism Study (ATS), and Global Terrorism Database (GTD), the researchers examined three case studies of four individuals radicalized to violence.<sup>31</sup> Similar to the research conducted by Indiana State University that is discussed earlier in this report, the Michigan State University team found in two of these case studies that simply being a lone actor (in terms of carrying out an act of terrorist violence) does not necessarily indicate that an individual is socially isolated nor that the individual's radicalization was self-manufactured. Indeed, findings from the research pointed to important roles that the internet and social ties and relationships can still play in radicalizing individuals who carry out lone-actor attacks and the need for policies to address these potential nodes of radicalization. In two of the three case studies — one that involved a single individual and one that involved two individuals carrying out a lone attack — the lone actors exhibited online and offline behaviors and interactions that suggested their radicalization was a product of social interactions with like-minded peers. These ranged from inculcation in online subcultures and participation in online forums (which seem to have played a role in the radicalization process for one individual) to online engagement, associations, and mutual in-person participation and relationships (which seem to have impacted radical beliefs and target selection for another individual).<sup>32</sup> The extent of the individual's social ties and direct engagement with online and in-person networks and even subcultures varied across the three cases.<sup>33</sup> As the researchers pointed out, this has important implications for how to conceptualize and approach lone-actor radicalization processes, the role of social networks within them, and how to design strategies to address these issues. The researchers suggested that it may be beneficial to consider alternative messaging programs (both on- and offline) designed to help individuals who may otherwise be in the process of radicalizing "recognize they are not alone."34

Overall, the findings suggest that while an attack may be carried out by an individual, the process of radicalization leading to the decision to engage in violence may involve a series of online and offline social interactions consequential to exposure to violent extremist ideas, escalation to violent activity, and decisions related to attack planning and targets. Although the researchers acknowledged that further testing of the model is necessary given the limited nature of the sample analyzed, this may suggest that social networks can play a more significant role in mobilizing individuals to lone attacks than previously considered, which has implications for how policies are crafted to prevent and intervene in radicalization processes. To better understand those processes and craft interventions, frameworks such as the Best and Luckenbill model may provide additional nuance and insight beneficial to the assessment and understanding of lone-actor radicalization influences and processes previously unexamined.35

### Pathways to and out of Radicalization and Violent Extremism Empirical Assessment of Domestic Disengagement and Deradicalization

Findings from two NIJ-sponsored research projects at the University of Maryland highlight the role social networks may play in both hindering and facilitating disengagement and reentry efforts among individuals formerly engaged in violent extremism.<sup>36</sup> Using the PIRUS dataset and 41 life-history interviews with individuals formerly engaged in extremist behavior,<sup>37</sup> among other factors, the research team found that "being a member of a close-knit extremist group that included a friend, family member, or romantic partner"38 functioned as a statistically significant barrier to disengagement and that "end[ing] relationships with extremists and/or beg[inning] new relationships with non-extremists" was found to be a statistically significant factor important to individuals' disengagement.<sup>39</sup> This finding varied across ideological groups, with "the development of positive personal relationships with nonradicals and/or the termination of personal relationships with radicals" more often present in reentry successes for individuals associated with far-right or far-left extremist groups and less often for individuals associated with Islamist extremist groups.<sup>40</sup> Moreover, the role of social networks in facilitating reentry and disengagement varied based on other factors — including a previous history of incarceration and advancements in social mobility — among the 41 individuals associated with far-right ideologies interviewed.<sup>41</sup> Ultimately, the research indicates that although addressing social dynamics and barriers related to extremism and facilitating positive, prosocial relationships are potentially important aspects of successful disengagement and reentry processes, these will be insufficient if done without consideration for personal backgrounds and experiences.<sup>42</sup>

#### Research on Domestic Radicalization to Violent Extremism: Insights From Family and Friends of Current and Former Extremists

In their completed NIJ-sponsored research project, the RAND Corporation similarly examined aspects related to individual backgrounds, radicalization pathways, and factors influencing deradicalization and disengagement using data from previous literature and PIRUS as well as interviews with a convenience sample of 36 individuals formerly involved in extremism, family members, and friends of individuals radicalized to white supremacist and violent jihadist beliefs. Findings from the research offered some insights into the role of social networks in influencing each of these aspects.<sup>43</sup>

Researchers noted that "both radicalization and deradicalization often rely on other key individuals being in the right place at the right time (and having the right relationship with the focal individual) to encourage that individual to radicalize or deradicalize."44 Efforts to address this, the researchers suggest, may be supported by increasing an individual's exposure to diverse populations and individuals belonging to "out-group" communities. Also consequential among the findings was that although an individual's peers, family members, and nonextremist social circles were at times aware of their radicalization, their interventions did not always succeed. This again suggests the importance of constructing avenues of support for families, peers, and community members within the social network of an individual on the path to radicalization.

#### Community Reporting Thresholds: Sharing Information With Authorities Concerning Terrorism Activity

When will people report if they suspect that a loved one is on a trajectory towards targeted violence? A completed NIJ-sponsored research project out of the University of California, Los Angeles, explored this question through interviews with 24 violence prevention professionals and 123 members of the general public.<sup>46</sup> Starting with two options (which included different scenarios for white and nonwhite participants), the public participants chose a hypothetical scenario of individuals at risk of using violence and were asked questions about how they would think about the choice and the means to report this.

From the responses, the team identified factors at four levels that would influence whether and to whom someone decided to report:

- Individual: fear of misjudgment, knowing when and how to report, desire for information, experience with police violence, political views, demographics, and emotions
- Relationship: care for person at risk; credibility of threat; fear of harm to self, person at risk, or family; fear of damaging the relationship; and friend/family support network
- Community: care for community, reputation and capabilities of local police, available community professionals and support, available reporting options, and access to mental health services
- Societal: racism and discrimination, police violence, economic inequality, available justice remedies, and lack of law enforcement focus on prevention

Overall, people across demographics agreed on their willingness to share concerns, but white-identified participants were more comfortable sharing this information with police and the FBI, while Black-identified participants were more comfortable sharing with alternative resources.<sup>47</sup> Based on these interviews, the team made several recommendations to law enforcement (e.g., expand the range of options for community reporting) and communities (e.g., educate communities on what, how, why, and where to report) with an emphasis on community-law enforcement collaboration.<sup>48</sup>

# Synthesized Findings: Gateways and **Gatekeepers**

Despite the varied focus and scope of NIJ-sponsored research on individual radicalization and disengagement trajectories, overall findings underscore that social networks can play a significant role in facilitating, preventing, and impacting disengagement from domestic radicalization. Their impact, of course, will vary depending on the nature of the social network at play, type of interaction, and characteristics and experiences of the individual who is radicalizing or already has radicalized.

Certain caveats should be taken into account when discussing similarities and differences across the findings. The focus and nature of the NIJ-sponsored research listed in exhibit 1 are diverse and subject to limitations both on an individual and a comparative level. This report is focused on findings, but it is always important to be aware of a research project's limitations. First, each of the research projects faced specific challenges, be they due to issues associated with data collection and verification or issues associated with relatively small sample sizes and the lack of a control or comparison group. Second, while some of the projects notably derived information from interviews with individuals who had radicalized or their family, friends, and broader social circles, 49 many drew findings from the same or similar databases and documents. The ECDB, GTD, ATS, and PIRUS datasets were heavily cited as sources for information on social network influence in individual radicalization trajectories and reentry processes, as were official court documents and media sources. In cases where multiple research projects drew on the same databases or data repositories, it is possible that the same individual cases were analyzed, which may impact the comparability of the findings and the generalizability of the lessons synthesized from them. Moreover, in cases where the research relied on the same repositories of publicly available documents (e.g., court documents) or the same databases (subject to the same potential coding biases), the findings may be reflective of information filtered through a third party. Finally, and as noted by some of the research teams, establishing an adequate control or comparison group proved difficult in some cases simply due to the difficulty of arranging interviews with individuals who were incarcerated or had formerly engaged in extremist behaviors. Where

studies did include a control or comparison group, it was not always the comparison the researchers had hoped for.<sup>50</sup>

These limitations and the diverse focus and time periods in which the projects were carried out mean that a scientific comparison and synthesis of NIJ-sponsored research and findings was not possible for the purposes of this paper. As such, the synthesized lessons below should not be seen as broadly representative nor generalizable. Still, based on the similarities and differences in findings from NIJ-sponsored research relevant to social networks, the synthesized findings presented should be viewed as important considerations for future research and policy focused on the role of social ties and dynamics in both facilitating and dissuading domestic radicalization to terrorism.

#### Social Networks Can Play Important Roles in Both Facilitating and Preventing Radicalization and Disengagement — Even in **Cases of Lone Actors**

Findings from NIJ-sponsored studies suggest the importance of understanding the role social networks and ties can have in functioning as both gateways and gatekeepers in individual radicalization and disengagement trajectories. We use gateways and gatekeepers here to signify roles in either facilitating or potentially preventing individuals from radicalizing to extremism or terrorism and in disengaging from extremism. Although the impact of these social networks can vary based on individual, environmental, and ideological factors, <sup>51</sup> overall, NIJ-sponsored research findings point to the inherently social nature of radicalization and engagement in extremism, even among so-called lone actors. In fact, collective findings from NIJ-sponsored research on lone-actor radicalization suggest that social networks and online subcultures can have a significant role in loneactor radicalization processes, both in terms of promoting radicalization through on- and offline social interactions and possibly preventing radicalization, given the prevalence of leakage in lone actors' online and in-person communications with their peers and family members.<sup>52</sup> NIJ-sponsored research carried out at the University of California, Los Angeles, is supplementary to this discussion, examining the behaviors and considerations of peers, community, and family members in preventing radicalization outcomes through reporting concerning behaviors and the potential barriers to or concerns with doing so.<sup>53</sup>

In terms of the role of social structures and bonds in establishing grievances and motivations for engaging in extremist activities and adopting extremist ideologies, some NIJ-sponsored research suggests that the absence of and search for social bonds, when combined with other factors, may play a role in motivating individuals to radicalize to violent extremist behaviors and ideas.<sup>54</sup> Importantly, as an individual moves along the pathway of radicalization or establishes connections with other radicalized individuals, either on- or offline, nonextremist social networks and bonds can weaken significantly, potentially limiting opportunities for intervention and disengagement and strengthening association with extremist social networks.<sup>55</sup>

Additionally, peer connections — particularly, but not limited to, those occurring in offline spaces — may significantly influence propensities to commit violent acts. Findings from the University of Maryland suggest that both failed attempts to join extremist networks and close connections to extremist leaders who had experienced some type of blowback may have functioned as a catalyst for radicalizing individuals to acts of violence, although in

different ways.<sup>56</sup> Meanwhile, findings from Colorado State University suggest that even in cases where social media may have played a role in an individual's radicalization, decisions to undertake illegal activities seem to have been more impacted by personal connections to individuals who had radicalized earlier.<sup>57</sup> Preliminary findings from the ongoing University of Southern California project provide further insight into the role that social networks may play in facilitating radicalization to violent extremism or the creation of violent extremist groups, suggesting that violent extremists with military experience may already have social networks from which to recruit and connect, as they are more likely to start their own group or join their group with another.<sup>58</sup>

#### Who an Individual Interacts With Has Implications for Pathways to and out of Radicalization

Extremist social networks — including extremist and nonextremist peers, family, and leaders — can function as both a gateway and an obstacle to radicalization and disengagement. NIJ-sponsored research findings were mixed in terms of the impact of "organic" connections to extremist or nonextremist individuals and social circles, with research findings suggesting that the presence or absence of either may not necessarily provide a safeguard or facilitate pathways to individual radicalization. For example, findings from the RAND study indicated that among individuals interviewed, "radical beliefs" within their familial ties were not often cited as motivating radicalization decisions, <sup>59</sup> whereas other findings suggested that, in some cases, radicalized familial connections may function to either motivate or further radicalization propensities and obstacles to disengagement.<sup>60</sup> Moreover, in terms of reintegration and prevention, nonextremist familial ties, while important, may not be sufficient. Indeed, findings suggest that even in cases where family members were aware of and attempted to intervene in the radicalization of a loved one, their efforts were not always successful.<sup>61</sup> Although the reasons are not necessarily clear due to data limitations, NIJ-sponsored research on peer gatekeeper and reporting mechanisms suggests that reluctance to seek support to address signs of radicalization due to the influence of and interaction among individual, relationship, community, and societal factors may have a limiting effect on reporting.<sup>62</sup>

Findings on the role of "constructed" social networks (e.g., seeking out extremist or nonextremist social connections and relationships) were similarly mixed. Some findings pointed to the role extremist social networks and ties, including extremist romantic partners, can play in promoting or advancing along pathways of radicalization and hindering efforts to disengage from terrorist or violent extremist activities and groups.<sup>63</sup> Other findings pointed to the role such actors may have in promoting disillusionment and discord, leading to disengagement.<sup>64</sup>

Moreover, research findings suggested that constructed social relationships and ties to nonextremist social networks and relationships could play a role in helping facilitate disengagement from extremist groups, such as engaging in a romantic relationship with an individual who does not identify with or support extremist ideologies or engaging with members of a perceived outgroup in positive and constructive ways. 65 Other factors including ideological affiliation and commitment, identity construction, socioeconomic status, and previous histories of incarceration — were found to impact the extent to which those social networks could play a role in facilitating disengagement from extremism.<sup>66</sup> Although this does not negate the potential role constructed social networks can play in

facilitating disengagement from radicalization and extremist ideologies and movements, it does reiterate the importance of understanding how social networks interact with other factors to produce individual extremist outcomes.

## Gaps and Path Forward

While NIJ-sponsored research has illuminated important findings related to the complexity of the radicalization process and role of social networks in it, many gaps in our understanding remain, some acknowledged by the researchers themselves.

First, although NIJ-sponsored studies examined the role of social networks across ideological strands of extremism and extremist violence, additional research is needed to further extrapolate how and when the role of social networks may vary based on potential distinctions in radicalization trajectories across individuals and ideologies. NIJ-sponsored studies have focused on trajectories to radicalization and disengagement among varied ideological strands of extremism: white supremacist extremism, hate-motivated extremism, anti-government-motivated extremism, jihadist extremism, and far-left and far-right extremism. However, as noted in some of the studies, more research is needed to fully tease out how the social networks and hierarchies inherent in each strand, and individual groups within them, can mitigate and prevent radicalization trajectories.

Second, while findings suggest that nonextremist social connections and networks may play a protective role once an individual starts radicalizing,<sup>67</sup> further questions remain as to what role they can and should play, especially once an individual starts deliberately distancing themselves from those social networks in favor of more extremist social circles. Findings from some projects suggest further support for communities, peers, and families on reporting and addressing signs of radicalization or leakage among radicalizing individuals is needed.<sup>68</sup> Still, further evaluative research on programmatic efforts to bolster that support and redirect individuals who are on pathways to radicalization can help inform efforts to understand best practices in providing support and building trust between social services, law enforcement, and community members.<sup>69</sup>

Third, some studies included comparative or control-based aspects in their research to better assess social factors influencing radicalization and disengagement among different ideologically motivated individuals and groups and among individuals who either succeeded or failed to disengage with extremist beliefs. However, notably absent from these studies were comparative elements assessing the extent to which similar social networks impacted

individuals who did not radicalize in the first place. Although this is admittedly a very difficult task, future research could consider exploring mechanisms by which to assess the role of social networks among individuals who both did and did not radicalize to terrorism. This could entail interviews with and data collected on close social contacts of individuals known to have radicalized to terrorism to assess the extent to which shared social networks impacted individual decisions. Ongoing NIJ-sponsored research from the University of Southern California examining and comparing the social networks of homegrown violent extremist military veterans, individuals without a history of military service who radicalized, and veterans not engaged in violent extremist behaviors may be particularly helpful in this regard.<sup>70</sup>

Finally, although findings from NIJ-sponsored research address issues associated with the distinctions and overlaps between both online and offline social network interactions and the interplay between radicalization and reintegration processes, further research is needed to understand what factors impact individual decisions to engage either online or offline with peers and the impact of doing so. NIJ-sponsored findings across many projects point to the importance of both in-person and online social networks in influencing radicalization and disengagement and potentially serving important roles in prevention programming. Future research should examine questions related to the characteristics of these networks and their impact. For example, how does the size of an individual's social network impact their radicalization or approach to carrying out terrorist violence? In some cases, even in research that considered online social networks, in-person connections still proved relevant. As online spaces continue to evolve and our everyday social interactions on them become more integrated with our offline lives, further research examining that evolution, the social dynamics constructed by it, and its real or potential role in preventing or facilitating radicalization is needed.<sup>72</sup>

## **Conclusion and Policy Implications**

Overall, NIJ-sponsored research examining the impact of social networks emphasizes the highly complex and individualized nature of both radicalization and disengagement processes while noting the important roles that social dynamics and social ties play in both. Although findings from the studies related to the role of social networks are not necessarily generalizable nor directly comparable, the prevalence of findings pertaining to social network influences on radicalization and disengagement dynamics within the NIJsponsored research is important to note. A few important implications for policy stand out.

#### Incorporate Analytical and Policy Frameworks That Recognize the Complex Interplay Between Social Networks and Other **Environmental and Individual Factors**

As referenced in previous NII synthesis reports on risk assessments and factors leading to radicalization,<sup>73</sup> there is no one-size-fits-all model for radicalization nor one factor that can be deemed exclusively explanatory in determining an individual's propensity to adopt or radicalize to terrorism. The relative weight of any one factor is difficult to assess, given that the radicalization process is so individualized that two persons with the same social networks will not necessarily interact with or be impacted by them in the same way. Although NIJ-sponsored research findings indicate that social networks can play key preventive and facilitating roles, those research findings also underscore the importance of the interplay between social networks and individual or social experiences. NIJsponsored research has elicited valuable information on potential and shared risk factors and protective frameworks. Adopting and continuing to test frameworks that allow for further nuance regarding commonly misunderstood terms and the role of social networks in radicalization processes, such as those proposed by research teams behind the findings discussed in this report,74 can assist in more nuanced and accurate assessments of risk and opportunity for law enforcement, policy, and practice priorities.

#### Build in Pathways and Programs To Help Disengage and Promote Help-Seeking Behaviors Among Radicalizing/ Radicalized Individuals and Their Peers/Social Networks

An important aspect highlighted within many of the cases was the presence of leakage information provided by the individual regarding their radicalization, extremist beliefs, or plans to carry out an attack.<sup>75</sup> Leakage occurred both online and in person, pointing to the importance of understanding social networks' potential ability to recognize and seek assistance in addressing signs of radicalization or intent to harm others as communicated by an individual within their social circle. It also highlights the potential benefits of providing support services to peers, families, and communities serving as gatekeepers in preventing radicalization, given their ability to identify signs of radicalization and the propensity for leakage among radicalizing peers. Still, findings point to a reluctance among familial and peer networks to report on friends or family members exhibiting potential signs of radicalization, largely due to a lack of awareness, trust, or fear of the consequences of reporting such behaviors to law enforcement.<sup>76</sup> Noting this, policy responses should be particularly cognizant of the potential need for increased support for community and law enforcement partnership-building efforts, further consideration of law enforcement responses, effective reporting mechanisms capable of maintaining anonymity, and providing resources and realistic and protected means of addressing concerns about radicalization within one's social network.<sup>77</sup> Moreover, additional support for reintegration efforts focused on building up prosocial social networks and bonds and providing constructive offramps that increase engagement with nonextremist individuals and provide avenues for socioeconomic attainment should be considered moving forward.<sup>78</sup>

Finally, policymakers and practitioners should explore further opportunities and obstacles to eliciting access to individuals who have radicalized or been charged with terrorismrelated offenses. NIJ-sponsored studies reviewed for this report noted the difficulties associated with gaining access to sensitive populations and, when able to gain access, establishing trust due to divergent protocols surrounding the use and anonymity of data.<sup>79</sup> Although principles of ethics, safety, security, and do-no-harm should be the primary concern and consideration in engaging research participants for any area of study related to terrorism, criminality, and national security, in some instances, despite researchers receiving ethical approval to conduct research, certain bureaucratic policies significantly impacted' their ability to access research participants, particularly those currently incarcerated. Further collaboration and partnership aimed at addressing these issues while maintaining ethical and security safeguards should be explored to ensure future research is both representative of and informed by the individual experiences of radicalization and disengagement.

## **Notes**

- 1. For synthesized findings on domestic radicalization processes, see Allison G. Smith, "How Radicalization to Terrorism Occurs in the United States: What Research Sponsored by the National Institute of Justice Tells Us," Washington, DC: U.S. Department of Justice, National Institute of Justice, 2018, NCJ 250171, https:// www.ojp.gov/pdffiles1/nij/250171.pdf; For synthesized findings on potential risk factors and indicators associated with them, see Allison G. Smith, "Risk Factors and Indicators Associated with Radicalization to Terrorism in the United States: What Research Sponsored by the National Institute of Justice Tells Us," Washington, DC: U.S. Department of Justice, National Institute of Justice, 2018, NCJ 251789. https:// www.ojp.gov/pdffiles1/nij/251789.pdf; For synthesized findings on lessons learned from evaluations of terrorism prevention programs, see Kateira Aryaeinejad and Thomas L. Scherer, "Evaluating and Assessing Terrorism Prevention Programs: What Research Sponsored by the National Institute of Justice Tells Us," Washington, DC: U.S. Department of Justice, National Institute of Justice (forthcoming).
- 2. For more on this effort, see Aisha Javed Qureshi, "Understanding Domestic Radicalization and Terrorism: A National Issue Within a Global Context," NIJ Journal 282, August 2020, https://nij.ojp.gov/library/publications/understanding-domestic-radicalization-andterrorism-national-issue-within. Additional synthesis reports on key aspects and topics within NIJ-funded domestic terrorism research are forthcoming.
- 3. Michael Jensen and Gary LaFree, "Final Report: Empirical Assessment of Domestic Radicalization (EADR)," Final report to the National Institute of Justice, award number 2012-ZA-BX-0005, December 2016, NCJ 250481, https://www.ojp.gov/pdffiles1/nij/ grants/250481.pdf.
- 4. Smith, "Risk Factors and Indicators Associated with Radicalization to Terrorism in the United States."
- 5. Smith, "Risk Factors and Indicators Associated with Radicalization to Terrorism in the United States."

- 6. See, for example, Joe Whittaker and Chamin Herath, "Understanding the Online and Offline Dynamics of Terrorist Pathways," *GNET*, July 13, 2022; Ines von Behr et. al, *Radicalisation in the Digital Era: The Use of the Internet in 15 Cases of Terrorism and Extremism* (RAND Europe, 2013).
- 7. Previous NIJ-funded synthesis papers have highlighted the importance of not only online but in-person social networks and relationships in radicalization processes. See Smith, "How Radicalization to Terrorism Occurs in the United States.
- 8. See, for example, Maura Conway, Ryan Scrivens, and Logan Macnair, "Right-Wing Extremists' Persistent Online Presence: History and Contemporary Trends," *International Centre for Counter-Terrorism* (2019); Thomas J. Holt, Steve Chermak, Joshua D. Freilich, "An Assessment of Extremist Groups Use of Web Forums, Social Media, and Technology To Enculturate and Radicalize Individuals to Violence," Final report to the National Institute of Justice, award number 2014-ZA-BX-0004, NCJ 256038, 2021, <a href="https://www.oip.gov/pdffiles1/nij/grants/256038.pdf">https://www.oip.gov/pdffiles1/nij/grants/256038.pdf</a>.
- 9. See, for example, Sean C. Reynolds and Mohammed M. Hafez, "Social Network Analysis of German Foreign Fighters in Syria and Iraq," *Terrorism and Political Violence* 31, no. 4 (2019): 661-686; Whittaker and Herath, "Understanding the Online and Offline Dynamics of Terrorist Pathways"; von Behr et al., *Radicalisation in the Digital Era*.
- 10. Where relevant, information from NIJ-sponsored research related to online social networks is referenced. A more in-depth overview of NIJ-sponsored research findings related to the role of the internet and online space in radicalization and disengagement processes, including findings related to social dynamics and interactions online and radicalization or terrorist activity, is highlighted in a future report on the topic.
- 11. LaFree, "Social Learning and Social Control."
- 12. 2005 was selected to control for the influence of the internet and online dynamics. Social control and social learning theories are derived from criminological theories on deviant behaviors. See Colleen E. Mills et al., "Social Learning and Social Control in the Off- and Online Pathways to Hate Crime and Terrorist Violence," *Studies in Conflict & Terrorism* 44 no. 9 (2021): 701-729.
- 13. Mills et al., "Social Learning and Social Control."
- 14. In some cases, the individuals even physically moved away from their families to be closer to extremist movements and leaders. See Mills et al., "Social Learning and Social Control," 715-716.
- 15. Notably, the wives of both individuals engaged in Jihadist extremism examined did not support their beliefs while the wife and girlfriend of both individuals engaged in farright extremism examined did show evidence of support. According to the researchers, in the case of one of the individuals engaged in far-right extremism, his wife may have contributed to his further violent radicalization. Mills et al., "Social Learning and Social Control," 716.
- 16. Mills et al., "Social Learning and Social Control," 717-719.

- 17. Mills et al., "Social Learning and Social Control," 719.
- 18. Mills et al., "Social Learning and Social Control," 716-717.
- 19. Jytte Klausen et al., "Radicalization Trajectories: An Evidence-Based Computational Approach to Dynamic Risk Assessment of 'Homegrown' Jihadists," Studies in Conflict & Terrorism 43 no.7 (2020): 588-615.
- 20. Klausen et al., "Radicalization Trajectories," 596-597.
- 21. Notably, the research suggests that this may vary among those who converted to Islam and those who came from Islamic backgrounds. The researchers suggest that converts radicalized after 2010 may be more likely to radicalize online, although they note it is difficult to assess the veracity of this finding and that close peers still seemed to function as the main driver to radicalization. Klausen et al., "Radicalization Trajectories," 597.
- 22. Klausen et al., "Radicalization Trajectories," 597.
- 23. Klausen et al., "Radicalization Trajectories," 610.
- 24. Mark Hamm and Ramon Spaaj, "Lone Wolf Terrorism in America: Using Knowledge of Radicalization Pathways to Forge Prevention Strategies," Final report to the National Institute of Justice, award number 2012-ZA-BX-0001, NCJ 248691, 2015, https://www.ojp. gov/pdffiles1/nij/grants/248691.pdf.
- 25. Hamm and Spaaj, "Lone Wolf Terrorism in America," 7.
- 26. Hamm and Spaaj, "Lone Wolf Terrorism in America," 11.
- 27. Hamm and Spaaj, "Lone Wolf Terrorism in America," 8-9.
- 28. Although the overarching goal of the NIJ-sponsored research focused on extremist groups, and particularly far-right extremists' use of the internet and technology, the Michigan State University research team used research findings to assess lone-actor social networks. See Holt, Chermak, and Freilich, "An Assessment of Extremist Groups Use of Web Forums."
- 29. According to the authors, the Best and Luckenbill model is "a comprehensive and well applied social organization framework to identify associations between individuals and groups and the transactions they engage in. This framework can also be used to understand how relationships affect individual positions within a clique or network as well as the role, or pattern of action, they play in larger social networks and subcultures." See page 87: Thomas J. Holt et al., "Loners, Colleagues, or Peers? Assessing the Social Organization of Radicalization," American Journal of Criminal Justice 44 (2019): 83-105.
- 30. Holt et al., "Loners, Colleagues, or Peers?"
- 31. The case studies included two cases of singular lone actors, Omar Mateen and Dylan Storm Roof, and one case of a lone dyad, Tamerlan Tsarnaev and his brother, Dzhokhar Tsarnaev.

- 32. Holt et al., "Loners, Colleagues, or Peers?" 97-98.
- 33. Holt et al., "Loners, Colleagues, or Peers?" 97-98.
- 34. 34 Holt et al., "Loners, Colleagues, or Peers?" 98.
- 35. Holt et al., "Loners, Colleagues, or Peers?" 98-99.
- 36. Findings here are derived from Michael Jensen and Pete Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)." Similar findings are reported in Michael Jensen, Patrick James, and Elizabeth Yates, "Contextualizing Disengagement."
- 37. The research examined 300 cases of individuals spanning far-left, far-right, single-issue, and jihadist extremist radicalization, using the data to construct 50 case studies of far-right extremists (25 who disengaged and 25 who did not), and conducted 41 life-history interviews with far-left, far-right, and jihadist extremists. See Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 38. As found in 56.7% of the 300 cases quantitatively analyzed where information on this factor was available. This factor was second only to "poor educational attainment," which was reported in 60.6% of overall cases where information on this factor was available. It should be noted that the percentages of these factors varied when analyzed within different ideologies. See Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)," 5.
- 39. As found in 36.1% of the 300 cases quantitatively analyzed where information on this factor was available. This factor was second only to "positive advancements in socioeconomic standing" and "the birth of children after radicalization," which were reported in about half of all cases where information on these factors was available. Again, it should be noted that the percentages of these factors varied when analyzed within different ideologies. See Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)," 5-6.
- 40. 43.9%, 41.1%, and 14.3% respectively. See "Risk and Rehabilitation: Supporting the Work of Probation Officers in the Community Reentry of Extremist Offenders," 6.
- 41. See National Institute of Justice funding award description, "Risk and Rehabilitation: Supporting the Work of Probation Officers in the Community Reentry of Extremist Offenders," at the University of Maryland, College Park, award number 2019-ZA-CX-0003, 6-7, <a href="https://nij.ojp.gov/funding/awards/2019-za-cx-0003">https://nij.ojp.gov/funding/awards/2019-za-cx-0003</a>.
- 42. See "Risk and Rehabilitation: Supporting the Work of Probation Officers in the Community Reentry of Extremist Offenders," 10.
- 43. Brown, "Research on Domestic Radicalization to Violent Extremism."
- 44. Brown, "Research on Domestic Radicalization to Violent Extremism," 11.

- 45. Brown, "Research on Domestic Radicalization to Violent Extremism," 13-17. "Out-group" can be used to describe individuals outside of an extremist group either by design (i.e., they are considered inferior or the enemy of an extremist group) or by choice (i.e., they do not support nor subscribe to the extremist ideologies and goals of an extremist group).
- 46. Eisenman et al., "Community Reporting Thresholds."
- 47. Eisenman et al., "Community Reporting Thresholds," 33-34.
- 48. David P. Eisenman et al., "Ten Ways To Improve Community Reporting for Violent Extremism and Targeted Violence," March 2021, NCJ 304867, https://www.ojp.gov/library/publications/ ten-ways-improve-community-reporting-violent-extremism-and-targeted-violence.
- 49. This can also call into question the validity of the data given and that it can be subject to biases, as noted by Anura P. Jayasumana and Jytte Klausen in "Dynamic, Graph-Based Risk Assessments for the Detection of Violent Extremist Radicalization Trajectories Using Large Scale Social and Behavioral Data," 33.
- 50. Jayasumana and Klausen, "Dynamic, Graph-Based Risk Assessments."
- 51. See Mills et al., "Social Learning and Social Control"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 52. Hamm and Spaaj, "Lone Wolf Terrorism in America."; Holt et al., "Loners, Colleagues, or Peers?"
- 53. Eisenman et al., "Community Reporting Thresholds."
- 54. For example, see the discussion of findings presented from Mills et al., "Social Learning and Social Control"; and Brown, "Research on Domestic Radicalization to Violent Extremism."
- 55. See, for example, Hamm and Spaaj, "Lone Wolf Terrorism in America"; Mills et al., "Social Learning and Social Control"; and Klausen et al., "Radicalization Trajectories."
- 56. Variation based on targets and type of activity. See Mills et al., "Social Learning and Social Control."
- 57. Klausen et al., "Radicalization Trajectories."
- 58. Hazel R. Atuel and Carl A. Castro, "Exploring Homegrown Violent Extremism Among Military Veterans and Civilians," The Military Psychologist 36, no. 3 (2021): 10-14.
- 59. Brown, "Research on Domestic Radicalization to Violent Extremism," 5.
- 60. Holt et al., "Loners, Colleagues, or Peers?"; Klausen et al., "Radicalization Trajectories."
- 61. See, for example, Mills et al., "Social Learning and Social Control"; Brown, "Research on Domestic Radicalization to Violent Extremism"; Klausen et al., "Radicalization Trajectories."

- 62. Eisenman et al., "Community Reporting Thresholds." See also Michael J. Williams, John G. Horgan, and William P. Evans, "Evaluation of a Multi-Faceted, U.S. Community-Based, Muslim-Led CVE Program," Final report to the National Institute of Justice, award number 2013-ZA-BX-0003, June 2016, NCJ 249936, <a href="https://www.ojp.gov/pdffiles1/nij/grants/249936.pdf">https://www.ojp.gov/pdffiles1/nij/grants/249936.pdf</a>.
- 63. See, for example, Mills et al., "Social Learning and Social Control"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 64. See, for example, Brown, "Research on Domestic Radicalization to Violent Extremism"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 65. Brown, "Research on Domestic Radicalization to Violent Extremism"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 66. Brown, "Research on Domestic Radicalization to Violent Extremism"; Mills et al., "Social Learning and Social Control."
- 67. Brown, "Research on Domestic Radicalization to Violent Extremism"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 68. See, for example, Eisenman et al., "Community Reporting Thresholds"; Brown, "Research on Domestic Radicalization to Violent Extremism."
- 69. See, for example, Brown, "Research on Domestic Radicalization to Violent Extremism."
- 70. Ongoing work for the project focuses on the cumulative impact of social networks established before entering the military, while in the military, and after leaving the military. Personal conversation with Hazel R. Atuel, July 8, 2022.
- 71. See, for example, Klausen et al., "Radicalization Trajectories"; Mills et al., "Social Learning and Social Control"
- 72. See, for example, Mills et al., "Social Learning and Social Control."
- 73. Smith, "How Radicalization to Terrorism Occurs in the United States."
- 74. Such as the Best Luckenbill framework to assess lone-actor social ties and radicalization trajectories, and social control and social learning models. See Mills et al., "Social Learning and Social Control"; Holt et al., "Loners, Colleagues, or Peers?"
- 75. Mills et al., "Social Learning and Social Control"; Hamm and Spaaj, "Lone Wolf Terrorism in America"; Holt et al., "Loners, Colleagues, or Peers?"
- 76. Eisenman et al., "Community Reporting Thresholds"; Brown, "Research on Domestic Radicalization to Violent Extremism."
- 77. Eisenman et al., "Community Reporting Thresholds"; Brown, "Research on Domestic Radicalization to Violent Extremism."

- 78. See, for example, Brown, "Research on Domestic Radicalization to Violent Extremism"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."
- 79. Hamm and Spaaj, "Lone Wolf Terrorism in America"; Jensen and Simi, "Empirical Assessment of Domestic Disengagement and Deradicalization (EAD)."

## **About the Authors**

Kateira Aryaeinejad specializes in research on violent extremism, focusing on research processes, global and local dynamics, and connecting rigorous research to policy and practice. Her work has focused on topics ranging from the evolution of and local support for violent extremist groups and narratives, online and offline communications, and peacebuilding and conflict dynamics. She holds an M.A. in International Peace and Conflict Resolution with a concentration in International Conflict Management from American University's School of International Service.

Thomas Leo Scherer is the research director for fp21. His work is focused on identifying and conducting high-quality research to improve U.S. foreign policy. He has previously worked on violent conflict research at the Center for Peace and Security Studies at the University of California San Diego and at the United States Institute of Peace. He has a Ph.D. in International Relations from Princeton University.